**The occult sciences : The philosophy of magic, prodigies and apparent miracles / from the French of Eusebe Salverte ; with notes illustrative, explanatory, and critical by Anthony Todd Thomson.**

### Contributors

Salverte, Eusèbe, 1771-1839.
Thomson, Anthony Todd, 1778-1849
Francis A. Countway Library of Medicine

### Publication/Creation

London : R. Bentley, 1846.

### Persistent URL

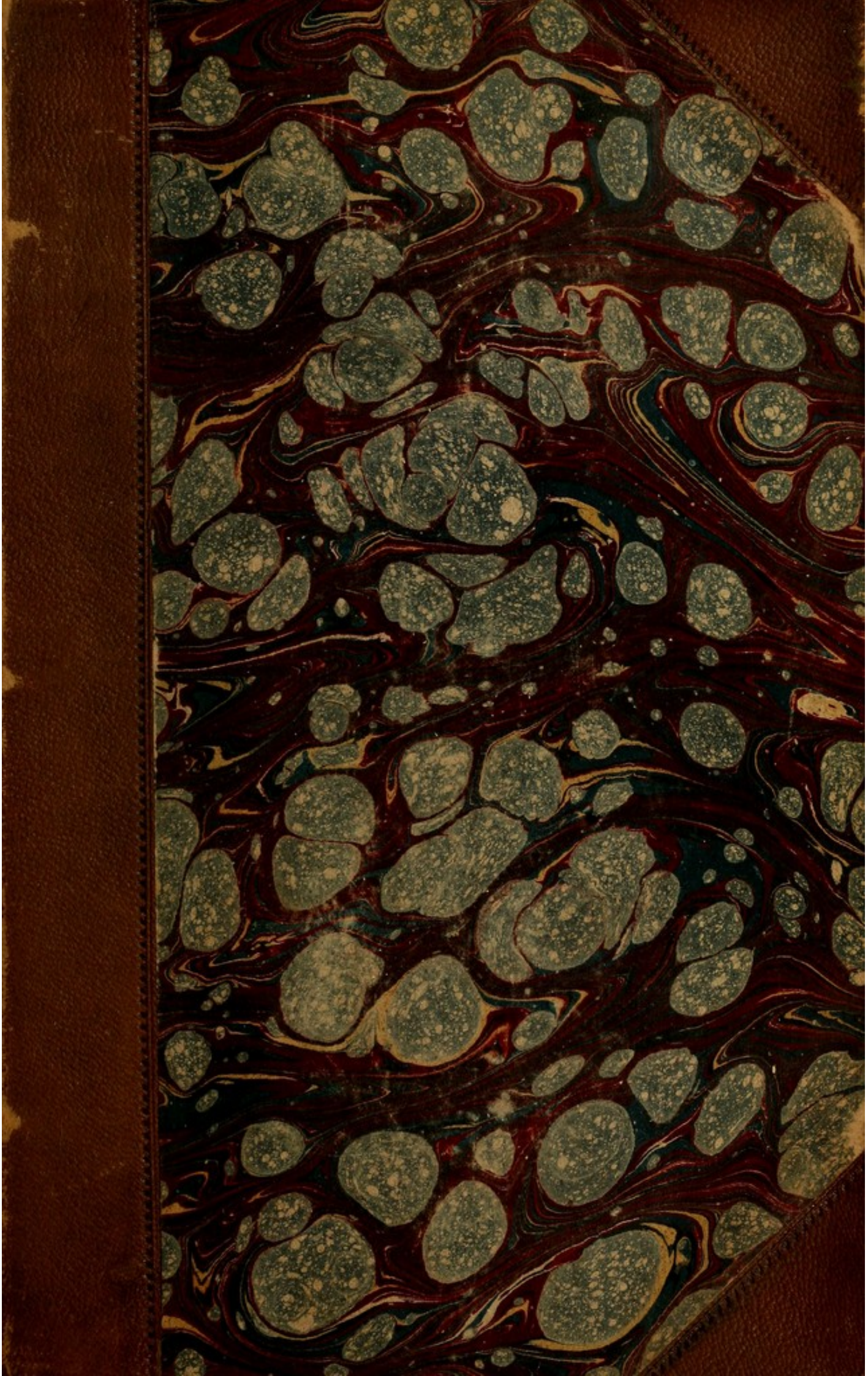
https://wellcomecollection.org/works/fac9wgx6

### License and attribution

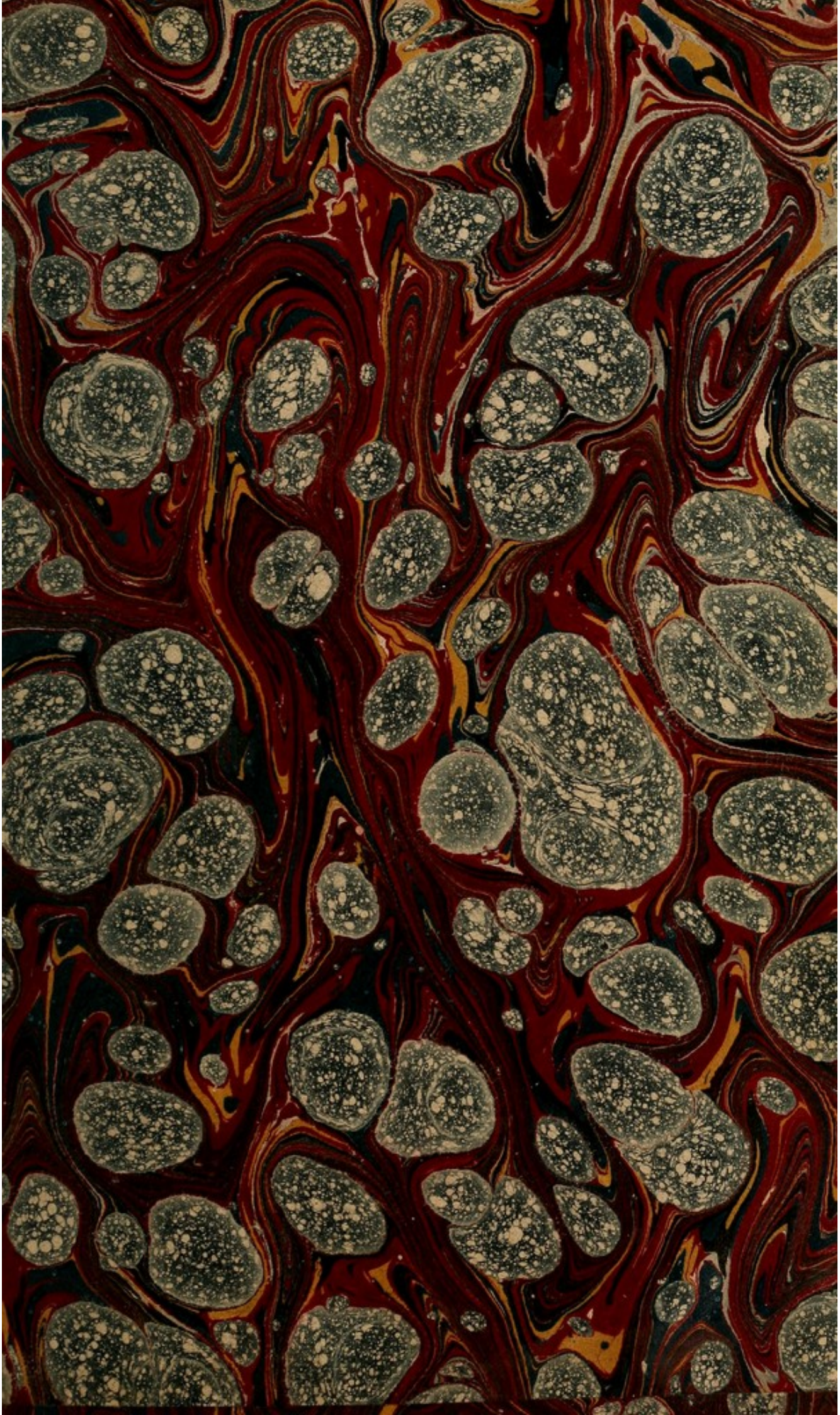
This material has been provided by This material has been provided by the Francis A. Countway Library of Medicine, through the Medical Heritage Library. The original may be consulted at the Francis A. Countway Library of Medicine, Harvard Medical School. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org



EX-LIBRIS
ΜΕΓΑΜΝΗΜΟΝ
ΕΟΚΟΡΔΝ
CLARENCE·W·SPRING·M·D·



9

~~631~~ Cut 55

6.20.23

Digitized by the Internet Archive
in 2012 with funding from
Open Knowledge Commons and Harvard Medical School

http://www.archive.org/details/occultsciencesph00salv

# THE OCCULT SCIENCES.

THE

# PHILOSOPHY OF MAGIC,

## PRODIGIES AND APPARENT MIRACLES.

FROM THE FRENCH OF

EUSEBE SALVERTE.

WITH NOTES ILLUSTRATIVE, EXPLANATORY, AND CRITICAL

BY ANTHONY TODD THOMSON, M.D.

F.L.S., &c.

"Non igitur oportet nos magicis illusionibus uti, cum potestas philosophica doceat operari quod sufficit."—Rog. Bacon, *De secr. oper. art. et nat.* c. v.

IN TWO VOLUMES.

VOL. I.

LONDON:
RICHARD BENTLEY, NEW BURLINGTON STREET.
Publisher in Ordinary to Her Majesty.

M.D.CCC.XLVI.

6445

LONDON:
Printed by Schulze and Co., 13, Poland Street.

BOSTON MEDICAL
DEC 21 1907
LIBRARY

# PREFACE BY THE AUTHOR.

Is not the history of *civilization*, in the most extended sense of this word, the history of mankind in a social state, one of the most important of all our studies?

About twenty years ago, consulting less my talents than my zeal, I undertook to retrace this history, and in 1813 I published an introduction,* in order to give an idea of the manner in which I thought it should be treated.

This essay received some encouragement, which only convinced me of the necessity of examining more profoundly so important a subject. The history and origin of the sciences occupied a large place in those researches, in which I was engaged, and I was soon

* *De la Civilisation depuis les premiers Temps historiques jusqu'à la fin du* XVIIIe *siècle . . . Introduction.*

convinced that it was impossible to have a just idea of the extent to which the sciences had been carried, among the ancients, without examining the kind of knowledge employed by the founders of those sciences, in working the wonders related in their annals. In the course of this inquiry, I discovered that much information was shut up in the temples, and employed there, during many ages, to excite either wonder or fear; but, in the flight of time, decaying and at last fading altogether away, leaving behind only imperfect traditions, which have since been ranked as fables. The attempts to restore life to these ancient intellectual monuments, accomplished a part of my task which, at the same time, filled up a great period in the history of the human mind. My treatise on this object soon became too ample to form merely a part of the principal work for which it was originally intended. It was easy to detach it, although connected with the object which I had proposed to myself to attain; and thus separated, it forms a whole, susceptible of special interest.

I shall content myself with bearing in remembrance the principle which has guided me in my various researches: that principle which distinguishes two very strongly marked forms of civilization, the *fixed* form, which formerly governed almost the whole world, and which still subsists in Asia; and—the *perfectible* form, which more or less reigns throughout Europe, although

it is not there fully developed; nor has it as yet, borne all those fruits which its elements permit us to anticipate in its progress to perfection.

In 1817 I published in the "*Esprit des Journaux*" (July volume), an article in which those principles were pointed out, which are here more fully developed, and many of the facts and arguments on which they rest. I only mention this on account of the date, that I may not be accused of having borrowed, from some works which have appeared more recently, those ideas and explanations which I have now a right to reproduce, since they were originally my own. Far from deceiving myself otherwise on the insufficiency of this first essay, I have remodelled it entirely and looked it over several times, with the assistance and advice of learned and benevolent men.

The first edition of this book published in 1829, being entirely sold, I found it necessary, in preparing a second to take advantage of those criticisms which had been addressed to me, and of the numerous observations that my subsequent studies had furnished. The theory which guided me remains the same; I shall sum it up in a few words.

1. When the improbability of a fact is the chief objection to the belief in its reality, the evidence which attests it, regains all its value, if the improbability be proved to

be only apparent. Can a similar test be applied with success to the greater part of the prodigies and assumed miracles related by the ancients? It is more reasonable, then, to admit the truth of the facts, and the accuracy of their explanation, than to condemn as impostures those recitals, of which modern discoveries have frequently demonstrated the truth.

2. It is an incontestable fact, that anciently science, and more especially that science which was confined to the temples, was enveloped in a thick veil to conceal it from the eyes of the vulgar; and that it was employed to produce wonderful works fitted to subdue the obstinacy and credulity of the people, is a supposition so natural, that it will be difficult to oppose it, at least by any sound reasons. In the marvellous recitals which have been handed down to our times, some of this mystical learning may be discovered; and in prosecuting the research, we endeavour to complete the history of science and of mankind.

A

# BIOGRAPHICAL SKETCH

OF

# M. SALVERTE,

FROM AN ORATION SPOKEN OVER HIS GRAVE

## BY M. FRANCOIS ARAGO,

MEMBER OF THE CHAMBER OF DEPUTIES AND OF THE INSTITUTE.

---

SALVERTE was born at Paris in 1771. His father, who filled a high situation in the administration of finance, destined him for the magistracy. At eighteen, after a brilliant course of study, at the College of Juilly, Salverte entered at the Châtelet, as an *avocat du roi.* At this period France awoke from a long and profound torpor. With the calmness which is always the true characteristic of strength, but with the energy which a good cause cannot fail to inspire, her children demanded on all sides, the abolition of despotic government. The voice of the people proclaimed that the distinction of

caste wounded at once human dignity and common sense; that all men should weigh equally in the scale of justice; that religious opinions cannot, without crime, be subject to the investigation of political authority.

Salverte had too much penetration not to perceive the vast extent of reform which these great principles would introduce, and not to foresee that the brilliant career, on which he had just entered, might be closed to him for ever. Behold, then, the young avocat du roi, from his first entrance into life, obliged to weigh his opinions as a citizen against his private interest. A thousand examples demonstrate that in these circumstances the ordeal is harsh, the decision doubtful; let us hasten to declare that the patriotism of Salverte carried it by main force; our colleague, without a moment's hesitation, ranked himself with the most eager and conscientious partizans of our glorious political regeneration. When after a time, a culpable opposition and the insolent interference of foreigners had thrown the country into disorder, Salverte, with all the superior classes was deeply afflicted. He foresaw the advantage that would be taken of it, sooner or later, by the enemies of the liberty of the people; but his reasonable grief did not detach him from the cause of progression. He was deprived of the situation he held in the office of foreign affairs; he answered this unmerited brutality, by re-

questing an examination by a commission, as an officer of engineers, and a mission to the army. The prejudices of the time caused the son of a *fermier-général* to be refused military service ; Salverte, however, not discouraged, requested at least to be allowed to be useful to his country, in a civil career. He entered, therefore, as a pupil, the College of Civil Engineers ; and, soon afterwards, became one of its most zealous tutors.

Salverte was too good a Frenchman to remain insensible to the glories of the empire ; he was, on the other hand, too friendly to liberty, not to perceive the heavy and firmly riveted chains, that covered the abundant harvests of laurels. He never let fall from his lips or his pen, a word of praise that could swell the torrent of adulation, which so soon led astray the hero of Castiglione and of Rivoli.

Our colleague devoted the whole period of the existence of the empire to retirement and study. During that time he became, by persevering labour, one of the most learned men of our age, in languages, science, and political economy.

Salverte was not mistaken as to the reaction of the measures, into which the second restoration would be inevitably led to precipitate itself. He thought, that in spite of the explicit wording of the capitulation of Paris, the thunderbolt of political passions would fall upon many of our military leaders ; he guessed that

these sanguinary acts would be excited, or at least encouraged by the allied generals, he foresaw that in the south, those odious *dragonnades* would be renewed which history has ranked among the darkest stains in the reign of Louis XIV. He felt his heart oppressed by the prospect of so direful a future. He resolved above all to avoid the humiliating spectacle of the military occupation of France, and he, therefore, set out for Geneva. Madame Salverte, so eminently distinguished, so capable of understanding and of entering into his noble feelings: whose fate it had been to be united to two men,* who in different modes, have done equal honour to France, accompanied her husband in this voluntary exile, which lasted for five years.

The public and political life of Salverte only commenced, properly speaking, in 1828. In that year one of the electoral districts, composed of the third and fifth municipal districts of Paris, confided to our friend the honour of representing it in the Chamber of Deputies. With a few weeks' interruption, he ever afterwards retained this honour:† and during the eleven years of

* M. de Fleurieu, who was successively *Ministre de la Marine, Sénateur,* and Governor of the Tuileries . . . . and M. E. Salverte.

† In 1839, at the time of the general election, M. E. Salverte was paralysed, almost dying; the electors of the fifth district of Paris, who knew the desperate state of their former deputy, wished nevertheless to render him a last homage, in again

his legislative career, he was a model of honesty and independence, zeal and assiduity.

Our age is essentially a writing age. Many persons have doubted the necessity of the innumerable official distribution of speeches, reports, tables, and statistics of all kinds, which daily overrun our abodes. It is even said that not one deputy has ever had the time or the perseverance to read the whole of these pamphlets; but I am mistaken, gentlemen, one exception is cited by the public, and that exception is M. Salverte.

There is not a single person, who, casting aside party-feeling does not hasten to do homage to the integrity of the Deputy of the fifth district of Paris. Perhaps the same justice has not been rendered in other particulars. The ambitious Salverte, since I am forced to connect two words so little suited to each other, never accepted a single one of those gewgaws, which, under the name of decorations, crosses, and ribands, are so strenuously sought after by all classes of society. The ambitious Salverte, after the three immortal days, refused the important place of director-general of the posts. Still later, the ambitious Salverte replied to an offer of a ministerial appointment,

choosing him to represent them; and M. Salverte, without the slightest canvass, was re-elected by an immense majority. This homage, so rare at the period in which we live, was as honourable to those who bestowed it, as to him who received it.

by demanding conditions so distinct, so precise, so liberal, that they were in his opinion, as they proved to be in fact, equivalent to a formal refusal. When we recollect the excessive readiness of legislative votes on matters of taxation, the reserve, the rigidness of Salverte, far from being a cause of reproach, presents to me the most honourable feature of his parliamentary career. On questions where the honour, the dignity or the liberty of France was concerned, the vote of our colleague was certain.

Is it not principally to the deep indignation, to the passionate repugnance, that every institution opposed to the strict rules of morality, that existed in the noble and elevated heart of our friend, that the town of Paris owes the suppression of those privileged houses, peopled by agents of the police, which were hideous gaming houses, in which the honour and fortune of families were daily swallowed up? The memory of Salverte has nothing to fear from the poisoned darts of calumny.

# PREFACE BY THE EDITOR.

THE Author of the following work, one of great erudition and research, has endeavoured to establish a theory which maintains that the improbability of the prodigies and assumed miracles related by the ancients is not sufficient to authorize their being regarded as fabulous, "if that improbability be proved to be only apparent." He founds his reasoning on the fact, that the degree of scientific knowledge existing in an early period of society, was much greater than the moderns are willing to admit; but that it was confined to the temples, carefully veiled from the eyes of the people, and exposed only to the priesthood. This fact was well exemplified in Egypt, where the ascendency of the priesthood, from this cause, was so paramount, that a Prince could not be established on his throne until he was initiated into the greater mysteries of the temples: yet, prior to that period, if the royal personage happened to be a member of the military order, he could not be a partaker of these important secrets until he became King.*

* Clement, of Alexandria, bears evidence to this fact.

The priests, consequently, were justly esteemed to possess all the knowledge that could be acquired by a peculiar education engrafted upon superior understanding: and they constituted a hierarchy, having almost unbounded influence in the civil as well as the religious polity of the state. As priests, they were the interpreters of the sacred books, the confidential advisers of the monarch, and the regulators of his conduct. They were also the judges of the land, and filled most of the important offices of the government. Their great object was to maintain their influence over the multitude; for which purpose, they not only preserved all knowledge in their own body, but entrusted the higher mysteries of their faith only to such individuals, even of the priesthood, as were known to excel in virtue and wisdom. To render their ascendency, also, over the minds of the people more secure, they pretended to skill in divination; to be able to presage future events; to foresee and to avert impending calamities, and to bring down the vengeance of the gods upon the profane for every dereliction of duty, or neglect of their service.

It must be evident that such a state of mental control could not be preserved without operating on the superstitious feelings of the multitude; consequently, sacrifices, rites, and ceremonies were instituted; and displays of sacerdotal power over the elements of nature which appear altogether improbable were witnessed. The object of our Author, as I have already said, was to explain the character of that power, and to remove the effects produced by it from the region of fable, by demonstrating that their improbability can be proved to

be only apparent. How far he has succeeded I shall leave to the readers of his proofs to determine; but, like all promulgators of a theory, he has attempted to extend it too far, and has supposed it capable of explaining not only the apparent miracles of Polytheism, but even those which, in a great degree, form the foundation of our purer faith, and which the benevolence of the Deity deigned to mortals as a revelation, and the best sanction of its Divine origin.

For the above reasons, in undertaking the task of editing these volumes, I have felt it my duty to expunge from their pages every passage referring to the sacred volume; and, at the same time, to change somewhat the title of the work, by substituting the words, "apparent miracles," for the word "miracles." This has not been done without due consideration, and from a conviction that the author had no correct idea of miracles, and, consequently, could not be supposed to regard those of the Bible as objects of belief. I consider it necessary, however, after this assertion, to lay before the reader my own opinions of the distinction between real and apparent miracles. But, before doing so, I must disown my belief in an opinion often put forth, that the indulgence of a certain degree of scepticism tends to improve argumentative acuteness; on the contrary, in clouding with a doubtful light both truth and error, it creates a tendency to make error as worthy of assent as truth.

We may define a real miracle, a new and extraordinary event, added to the ordinary series of events; the result of extraordinary circumstances, and such as may be reasonably supposed to proceed directly from the

Divine will operating on the usual phenomena of the universe: certainly "not a violation of the laws of nature."*

The recitals of real miracles that have been witnessed, and the opinion that they are likely again, at any time, to be witnessed, I may unhesitatingly assert can only be denied by him who is sceptical as to the direct operation of the Supreme Power which created the world, the greatest, and assuredly the most incomprehensible of all miracles. In every real miracle, the Deity must directly act; as it cannot be regarded otherwise than "as a new event resulting from a new antecedent,"† depending wholly on the will of the Omnipotent, in the same manner as the creation of the world.

One of the greatest miracles, next to that of the creation, is the universal deluge, a miracle anterior to all existing records, and yet universally believed by every nation and people on the face of the globe. It is, indeed, remarkable that a theological philosopher, an amiable and pious dignitary of the Church of England, Bishop Burnet, should have laboured to explain this awful catastrophe upon physical principles. It is unnecessary to enter upon any refutation of the absurd, hypothetical romance of this worthy divine. He conceived that this globe consisted of a nucleus of waters, surrounded by a crust of solid earth, which "at a time appointed by Divine Providence, and from causes made ready to do that great execution upon a sinful world," fell into the

* *Brown's Inquiry into the Relation of Cause and Effect.*— Notes E.F. p. 500—540.

† Dr. Brown, l. c.

immense abyss, the waters of which, rushing out, overflowed "all the parts and regions of the broken earth, during the great commotion and agitation of the abyss."

Another theory, advanced by Mr. Whiston, although more plausible, yet is not more difficult of refutation than that of Burnet. He attributed the awful phenomenon to the near approach of a comet. I have said it is more plausible than that of the Bishop, because the effect of such a shock might be, as La Place has stated (supposing it possible), to change the axis and motion of rotation of the globe; and, consequently, not only to overthrow everything upon its surface, but to cause the waters to abandon their ancient beds, and to precipitate themselves upon the equator, drowning every man and animal in their progress. But this opinion cannot be supported, even upon the physical proofs that are so plausibly and ingeniously advanced. In the first place there is every astronomical certainty that no change has taken place in the axis of the globe; in the second place, the deluge, as it is recorded in the Bible, continued only one hundred and fifty days, a period not of sufficient duration to cause the extensive deposits in the crust of the earth detected by geologists, which must therefore be referred to some prior catastrophe. Neither have any human bones been found in these deposits, although the bones of many other mammalia, equally perishable, are abundantly scattered through them. Indeed it is probable that the bones and debris of any animals destroyed by the deluge would not be preserved; as the bodies of both man and animals being exposed to the air when the

waters retired, they would undergo rapid decomposition and return to their primeval earth. In the third place, La Grange and La Place have demonstrated that, although, as Sir Isaac Newton conjectured, great irregularities and disturbances may occur in the action of one planet upon another, yet they are counterbalanced by the period of every planet's revolution, and its mean distance from the sun being unassailable by any of the causes of change. From these elements, therefore, we are authorized to affirm that the utmost order and regularity must be preserved in our system, and disorder so excluded, that neither a universal deluge, nor any extraneous cause of destruction to this globe, can ever occur without the immediate interposition of the Creator; or, in other words, without a direct miracle. In this great miracle, however, it must not be supposed that there was any violation of the laws of nature, but that a new event was required for a special purpose, and that it was effected by a direct act of the Deity.

In contemplating the tremendous, and awfully sublime nature of the universal deluge, the magnitude of the catastrophe—the overthrow of a world—it cannot but be regarded as an essential ingredient in constituting it a miracle. But such sublime effects are not necessary to constitute a miracle; the transmutation of water into wine at Canna; the healing of the sick; and the raising of Lazarus from the grave, with the other extraordinary actions of our Saviour, are equally deserving the name of miracles, and equally inexplicable upon every principle except that which has been already stated as constituting a miracle. The Divine will that preceded them

may be safely regarded as the efficient cause of their miraculous results; and none but an atheist would exclude the exercise of Omnipotence in producing new events, at any period, as well as at that of the creation.

But it may be justly argued that every hitherto unobserved, and, therefore, new and extraordinary event, which is inexplicable by our experience, cannot be regarded as a miracle. Certainly not. The fall of aerolites has frequently taken place, although we are utterly ignorant of the peculiar combination of circumstances that physically precede them; and, when first observed, they must not only have excited the utmost astonishment, but given sufficient occasion for belief in their miraculous character. They have, now, so frequently been observed, that the phenomenon can no longer be doubted; they cannot, therefore, be regarded as miracles, because, "the necessary combination, whatever it may have been, must previously have taken place;" and although they were not observed, yet there is much probability that they must have frequently before fallen. The physical probabilities, therefore, have only to be weighed, as in the case of every other extraordinary event related to us; and, according to the result, our belief or disbelief will be fixed. If the event, however extraordinary, can be explained by physical causes, it cannot be regarded as supernatural, and, consequently, not as a miracle.

An apparent miracle may be defined an extraordinary, and, as far as the knowledge of those who witness it for the first time extends, an unprecedented event; but when it is carefully examined, it can be explained upon ordinary physical principles, and, if not a

natural event, it may be performed by any one who is in possession of the method of working it.

The first attempt, which succeeded, to attract lightning from the clouds, when witnessed by those ignorant of the method of effecting it, was proclaimed as a miracle, and consistently regarded as such by the ignorant multitude. Nothing, indeed, could be better calculated to subdue and enchain their minds in the bondage of superstition; but, since the principles upon which the phenomenon depends are well understood, it has ceased to be regarded as miraculous, and is classed among the other remarkable discoveries of physical science. Many of the astounding phenomena of initiation into the mysteries of the temples, and those intended to be considered as supernatural when displayed before the people in ancient times, and even, *proh pudor!* some in our own times, especially in the legends and the rituals of the Church of Rome, are readily explained upon physical principles, and may be confidently classed as sacred frauds. Nothing can be more unworthy of the Church who sends them forth. Well may the scoffer at religion exclaim, does the honour and the worship of the Deity require for its advancement the aid of falsehood and imposture!

Such is my opinion of the distinction between real and apparent miracles. With reference to the former, the Supreme Being may will, as he possesses the power, to perform everything, at any time, that is truly miraculous; and we can always trace the intention to some gracious purpose. But, however closely the ingenuity of man may imitate real miracles, and however the results

of his operations may appear miraculous, yet, when they are examined, they can be referred, as I have already said, to physical causes; and their influence is found not to be directed to the beneficent and gracious ends, which follow, as a regular sequence, every real miracle. The apparent miracle is worked, not for an act worthy of the Divinity, but to elevate the dignity of certain individuals, or to augment the consequence of particular classes of men, in the eyes of the ignorant; or to forward some other object not extending to general good, but confined in its influence to comparatively narrow limits; namely, to satisfy ambition and the love of power.

To affirm positively that an event which is consonant with the ordinary powers of nature, is the immediate result of the intervention of Divine agency, displays an arrogant assumption of superior wisdom, and of such an acquaintance with all the tendencies of the operations of the works of nature as to pronounce them inadequate, and must consequently lead to the suspicion of imposture; but to presume to imitate the awful phenomena of nature, and to pronounce these imitations the result of supernatural agency, deserves no other appellation than that of actual imposture. Such attempts for the purposes of ambition, and for the promotion of sacerdotal control over the minds of the mass of mankind, are those which our Author has endeavoured to expose; and, when he has confined himself to these alone, his object has been accomplished.

With respect to another description of pretended miracles in our own times, namely, those which occupied

the public mind in 1820, during the career of Prince Hohenlohe, who assumed to himself the miraculous gift of healing; and also some cures which were alleged to have been obtained through prayer, and published in a periodical called the *Morning Watch*, in 1830: these appear not to have been known to our Author. They are only mentioned here to show that credulity and superstition belong to no particular age; and to demonstrate the powerful influence of confidence in bestowing tone and energy upon the human frame, after long continued chronic diseases have worn themselves out, and have left the individual in a state of debility which only requires the action of some powerful excitement to set the machine again in action.

"Of all moral agents," says Mr. Travers, in a letter relative to the cure of a Miss Fancourt of a spine complaint, in answer to the prayer of a Mr. Greaves, "I conceive that faith which is inspired by a religious creed to be the most powerful; and Miss Fancourt's case, there can be no doubt, was one of many instances of sudden recovery from a passive form of nervous ailment, brought about by the powerful excitement of this extraordinary stimulus, compared to which, in her predisposed frame of mind, ammonia and quina would have been mere trifling." On the same principles may be justly ascribed the cure of Miss Martineau, so confidently ascribed by that highly talented lady to the influence of mesmerism. It is a melancholy reflection that in so advanced a period of civilization as the above-named period, dupes should be found to believe, or self-constituted miracle-workers presume, to operate upon the credulity of mankind.

The ascribing of such events to the intercession of the sanctified dead, or to the prayers of the living, or to the particular intervention of the Deity called forth by them, can be neither justified by sound reason nor approved by true religion. The cures, really accomplished, can be explained by the operation of adequate natural causes; and, consequently, require no miraculous interposition. It may be argued that the testimony of credible witnesses may be adduced in support of such apparent miracles; but, before admitting such testimony, we must take into account the condition of mind of the witnesses; for, when there is a tendency in the mind, either from its original structure, or from the nurture of improper education, to believe in miraculous events, a spirit of self-deception is practised, and appearances are adopted as truths, without the smallest feeling of doubt, and assuredly without any attempt to estimate their degree of probability. Under such circumstances, the respectability of the witnesses does not enhance the value of the testimony if, after weighing all the probabilities, we are satisfied that they concur against the truth of the event having really happened. Do not, we may inquire, the strongest minds sometimes, in such cases, demonstrate that the most perfect specimens of human intellect, like the sun, have their spots, since we find the immortal Newton himself paying the penalty to mortal weakness on the subject of prophetical interpretations? Selden, in his apology for the law against witches, displayed a lurking belief in witchcraft; and both Sir Thomas Brown and Sir Mathew Hale were believers in that absurd infatuation.

Indeed, the extraordinary extent to which the belief in witchcraft existed during the twelfth and thirteenth centuries in the north of Europe, and in Great Britain, is almost incredible. Like the spectres which it was supposed to invoke, it vanished before the light which experimental science threw upon those events, natural or artificial, that were previously considered to depend on supernatural interposition.

On that portion of his subject which treats of Magic, and its modifications, sorcery and witchcraft, our Author has displayed much research; but he has scarcely noticed the opinion which at one time very generally prevailed, and which still forms part of the Roman Catholic faith, that every man at his nativity has a good and a bad angel assigned to him. This belief was probably a remnant of that part of the doctrine of Zoroaster, which describes the Supreme Being as assigning, at the Creation, the government of the world to two principles, one of good, and the other of evil; which originated the Pagan doctrine of the agency of good and evil genii, to which also the Grecian philosophers were addicted.

This belief seems to have prevailed even in the time of Shakspeare, who refers to it in several of his dramas, and especially in the following passage:

> "Thy demon, that's thy spirit which keeps thee, is
> Noble, courageous, high, untameable
> When Cæsar's is not; but, near him, thy angel
> Becomes a Fear, as being overpowered—
> I say again thy spirit
> Is all abroad to govern thee near him;
> But be aware, 'tis noble."*

* *Anthony and Cleopatra*, act VII. scene 3.

It is not my intention, as it would be out of place here, to comment upon this subject, although one of considerable interest, and still entertained by several good and pious individuals, who ascribe all evil thoughts and temptations to the immediate instigation of the devil. It is also a curious fact that the act of suicide, which too frequently is the consequence of insanity, is often caused by the illusion of a voice constantly whispering in the ear of the unfortunate individual, and urging the committal of the crime.

On the subject of prodigies, and visions, our Author is not so copious as the title of his work would lead the reader to anticipate: those

> "Signs,
> Abortions, presages, and tongues of heaven,"

that in spite of the rapid advancement and extension of knowledge, so characteristic of the present period, still press like an incubus upon the minds of many persons, and a total freedom from which can be conscientiously boasted of only by a few. In confirmation of this assertion, it is not necessary that I should prove a belief in spectral appearanecs, although there are spectral illusions occurring when the nervous system is deranged in any one labouring under febrile disease, or in a healthy person exhausted with long and anxious watching by the bed of sickness, which might be regarded as predictive of death; nor is it requisite that I should refer to the belief in screams and fearful noises heard at the dead of night; corpse candles, nor tomb fires; nor those alterations in the burning of lights which a guilty conscience fancies may take place at midnight, and which are

omens of some approaching disaster, the merited punishment of crime.

> "The lights burn blue: it is now dead midnight.
> Cold fearful drops stand on my trembling flesh.
> Methought the souls of all that I had murder'd
> Came to my tent."*

But independent of any belief in these visions—these aerial simulacra—there are certain feelings of the mind which seem to indicate disaster, and which to a certain degree influence more or less the belief of every man.

Much might be said upon the *Second Sight*, a property of recognising "the coming events which cast their shadow before," and which is still believed to be possessed by some persons in the remote parts of the Highlands of Scotland. The second sight is a species of divination; a gift of prophecy, or of prediction from visions. One writer on the Highlands, a man of genius and high acquirements, Doctor Macculloch, treats the whole as a fanciful romance; a mere specimen of superstition in the believers, and of impudent assumption of a possession which never existed only in the declaration of the seers; and the trick of which, in truth, might be acquired by any one in the Island of Sky for a mere trifle. The object seen by the mountain seer is often a close resemblance of himself, at whatever period of life he may be; and upon this fact, believing that the object is really seen, I have attempted an expla-

* *Richard III.*, act v. scene 3.

nation in a note upon it. How far I have succeeded I leave to the judgment of the reader. Certain conditions of the nervous system, also, especially hypochondriacal affections, cause spectral illusions, which the patient in some degree believes to be real. My explanation, however, refers to those visions only that are seen of the seers themselves; not to those which display the whole machinery of the predicted event, whether disastrous or joyful. In this respect I am inclined to think, with Dr. Macculloch, that the honesty of the seers may be placed on a parallel with that of the Delphian Pythoness; and it is of little consequence what the cause of the excitement is, whether whisky, or carbonic acid gas.

In the exercise of the second sight, the predictions have been usually accomplished before the seer has published his anticipatory knowledge; hence the facility with which predictions may be at any time announced. The wonder is that the impudent assertions of their being known before hand should find believers; it can only be affirmed that the credulity balances the imposture. Absurd as these facts show this assumed gift of divination to have been, the belief in it was at one time universal; but it is now, happily, on the wane, and practised only in the remote Hebrides. If at any period those predictive visions really occurred, they must be viewed only as reveries, the sports of mental association in a state between sleeping and waking.

With respect to other omens, they are nearly the same over all the world, as well as in the Highlands. "A spark of fire," says Dr. Macculloch, in treating of

Sky, "falling on the breast or arms of a woman, was the omen of a dead child. Certain sounds were the omens of death;" and these are certainly not confined to Sky; we find them prevailing among the uneducated classes, even in England, and, what is more remarkable, among some whose education should have placed them above lending an ear of credence to such absurdities. Many of these forebodings attract the attention of the individuals merely from that listless, dozing condition which is the result of want of occupation. The vision is, in truth, the recollection of something that has previously occurred, which begins a series of associations, or false ideas, that impress and keep their hold of the imagination in hours between sleeping and watchfulness.

It might be supposed that the seers could not believe, and that, like the augurs of old, who laughed in each others faces when they met, the seers, also, must have felt strange emotions on encountering one another; but this idea does not always hold. How many confessions of witchcraft were made at the time when that delusion enchained the human mind in its bondage may be seen in the pages of our Author. These confessions may be regarded as a species of insanity, especially when those who uttered them were carried to the stake, or were suffering under the most horrific tortures of breaking on the wheel. The argument in favour of witchcraft resting on evidence is valid for every absurdity detailed of it; but it is almost degrading to condescend to prove the small value of human testimony upon numerous points, when we see

men of every rank and denomination deceiving their eyesight, and believing that they have seen what never existed. Instances of this extraordinary fact are abundantly scattered through the following volumes; and it has been well remarked, that "when once the minds of a people are prepared with a solution for every event, there will never be wanting events adapted to the situation."*

With regard to the predictions of the temples, I am of opinion that our Author ascribes too much knowledge to the priesthood. In their own operations, there is no reason why their predictions should not be fulfilled; but, in the series of natural events, where all things are so mingled together, and the untwining of the complication so much beyond our power, that to predict the manner and the particular moment in which the anticipated effect will take place cannot be supposed possible. Long experience, and the constant observation of natural events, may do much in enabling truth to be approximated under such circumstances; but even these aids are not adequate to insure its full attainment.

To suppose, however, that the fulfilment of a prediction of a supernatural character can depend, in any degree, on the interposition of the individual who has hazarded it, must be regarded as absurd; and as resting upon the same ground as the belief in witchcraft; the stories of men without heads, described by St. Augustine as having been seen by himself; or the satyrs of St.

* Macculloch's Highlands and Western Islands, &c. vol. II, p. 86.

Jerome;* mermaids; the *clairvoyance* of mesmerisers; the cures of Prince Hohenlohe, performed at two thousand miles from the patient; or those fictitious ones now enslaving the minds of many whose rank in life and education should have prevented them from becoming the dupes of so silly an imposture—I refer to the gift of healing possessed by a young French woman, Mademoiselle Julie, now in the British metropolis. She professes to judge of diseases, when placed in the mesmeric slumber, by feeling a few hairs from the head of the sick person, who is not required to be present; and prescribing for them;—a most impudent imposture, which has been justly exposed by Doctor John Forbes.†

A considerable portion of these volumes is occupied in tracing many of the extraordinary apparent miracles of antiquity to mechanical and scientific sources; but the knowledge of the erudite Author is not very profound on this part of his subject; and here I trust my Notes shall be found to illustrate his remarks; as well as to clear up many obscure passages; to explain processes which seem to have been little known to him; and to correct errors into which he has been led from being only superficially acquainted with the subject. I have, also, added many brief biographical notices of the principal individuals mentioned in the text, chiefly for the sake of the general English reader, whose moderate acquaintance with clas-

* St. Jerome averred that there were actual satyrs, men with goats' legs and tails, exhibited at Alexandria; and that one was pickled and sent in a cask to Constantine.

† See British and Foreign Medical Review.

sical antiquity may require such an aid. It is not for me to say how much the Notes may be thought to add to the value of the work; they have been written with the intention of rendering the whole subject better understood. I contemplated adding to the Illustrations at the conclusion of the second volume, an Essay on Credulity in Medicine, tracing it to its course, and giving an exposition of the various successful efforts of charlatanism, which have at various times imposed upon the understanding of mankind, and contributed to the stability of the empire of superstition. But on looking over my materials for such a dissertation, collected during many years, I was convinced that the subject could not be embraced within any reasonable compass to serve as an appendage to these volumes; I have therefore determined to lay it, at some future time, before the public as a distinct work.

In conclusion, I have no hesitation in declaring my opinion that M. Salverte has performed a beneficial service to mankind in throwing open the gates of the ancient sanctuaries. The benefit would have been enhanced had he extended his researches from the fallacies of polytheism to the pious frauds which disfigure the middle age of the Christian world; "and from which," to borrow the language of Paley, "Christianity has suffered more injury than from all other causes put together;" another proof, were it required, that Credulity and Superstition belong to no particular age nor country. Their labours constitute a large portion of the history of the human race, which may be regarded as little more than a record of the follies and

vices of man, rather than a display of his virtues and intellectual energies. Whatever may be our religious faith, we drink in, almost with our mother's milk, an admiration of classic antiquity; and from the influence of early education we are insensibly led to give some degree of credence to its mythology. One beneficial effect, however, it must be confessed, results from tracing traditions; namely, the tendency which they have, in many important particulars, to confirm the truths of the Bible. Whether disgraced by the cruel and remorseless absurdities that deform the Hindoo rites; or emerging from the frowning darkness that shrouded Egyptian mysticism; or concealed by the graceful drapery which decorated Grecian polytheism; we may discover in all of them nearly the same account of the infant condition of the world; the creation of the human race; and the catastrophe of the deluge; thence a confirmation of the cosmogony of the book of Genesis. The Hindoos, for example, divide the creation into six successive periods, the last of which terminates with the formation of man; and, in the Purana, amidst the wildest allegories and most fanciful exuberance of machinery, we discover evident traces of the universal flood, and the preservation of one family destined to renew and to continue the human race. Among the Parsees, the followers of Zoroaster, the belief in one Supreme Being, and of a good and an evil principle, constitutes their primitive faith; the superstitions now mingled with the fire worship having originated in the ambition of the priesthood for power, rather

than in the tenets of its original founder. The sun of Christianity has dispersed the darkness of paganism; and, as knowledge extends sufficiently to dissipate the divisions introduced, unhappily, into the Christian churches, the blessings that result more and more from its influence, will afford only additional evidence of its divine origin.

A. T. T.

30, WELBECK STREET,
JUNE 1846.

# CONTENTS

OF THE

# FIRST VOLUME.

---

## CHAPTER I.

Man is credulous because he is naturally sincere—Men of superior intellect have reduced their fellow-men to submission by acting upon their passions through their credulity —The recitals of marvels which conduced to this end are not wholly inventive—It is useful as well as curious to study the facts contained in these narrations, and their causes. 1—6

## CHAPTER II.

Difference between Miracles and Prodigies—Circumstances that render marvellous Histories credible—1st. The number and agreement of the narrations, and the confidence which the observers and witnesses of them merit.—2nd. The possibility of tracing out some one or other of the principal causes that may have given a miraculous colouring to a natural event . . . . . 7—16

## CHAPTER III.

Enumeration and discussion of Causes—Singular and deceptive appearances of Nature—Exaggeration of the details and duration of Phenomena—Improper terms, ill-conceived and badly explained—Figurative expressions—Poetic style—Erroneous explanations of Emblematic Representations—Allegories and Fables adopted as real facts . . 17—62

## CHAPTER IV.

Real but rare Phenomena successfully held up as Prodigies proceeding from the intervention of a Divine Power; and believed because men were ignorant that a Phenomenon could be local and periodical; because they had forgotten some natural fact, which would at once have removed all idea of the marvellous; and finally, because it was often dangerous to disabuse a deceived multitude—As the ancient authors have adhered to truth in this respect; they may be, also, depended upon in what they relate of magical operations . 63—96

## CHAPTER V.

Magic—Antiquity and universality of the belief in Magic—Its operations attributed equally to the principle of evil and of good —It was not considered by the ancients to imply the subversion of the order of nature—Its truth was not disputed even when emanating from the disciples of an inimical religion 97—108

## CHAPTER VI.

Trial of Skill between the Thaumaturgists—It was admitted that the victor derived his Science from the Deity; but it was founded on Natural Philosophy—The proofs of which are derived; 1st. From the conduct of the Thaumaturgists—2nd. From their own assertions regarding Magic, that the Genii invoked by the Magicians sometimes signified the Physical or Chemical agents accessory to the Occult Science; sometimes the men who cultivated that Science—3rd. The Magic of the Chaldeans embraced all the Occult Sciences 109—131

## CHAPTER VII.

Errors mingled with the positive truths of Science—These have their origin sometimes in deliberate imposture, sometimes in the mystery in which the Occult Science is involved—Impostures exaggerated—Pretension of the Thaumaturgists; Charlatanism; Jugglery; Tricks of Legerdemain more or less palpable—Chance and the facility with which its results may be controlled —Oracles conjoined with equivocation and imposture, to insure their fulfilment by natural means, such as Ventriloquism, &c.; and by finally exact, but very simple observations 132—168

## CHAPTER VIII.

Safeguards of the mystery that surrounded the Occult Sciences—Hieroglyphics, idioms, and sacred writing—Not understood by the uninitiated — Enigmatical language of the invocations—Gradual and partial revelations known in their plenitude only to a small number of priests—Oaths, and falsehoods respecting the nature of the processes, and the extent of Magical operations — Consequences of this mystery: — I. The Science of

Magic was reduced, in the hands of the Thaumaturgists, to a practice, the nature of which, devoid of theory, became in time unintelligible—II. Great errors universally prevailed, owing to ignorance of the limits that circumscribed this power; the desire to penetrate into secrets of Magic, and the habit of attributing its efficacy to the visible and ostensible processes of Science . . . . 169—201

## CHAPTER IX.

Notwithstanding the rivalry of religious sects, the spirit of a fixed form of civilization existed—Mystery in the schools of philosophy was ultimately banished by the influence of more perfect civilization—In the first epoch there was an habitual communication of the Greeks with the successors of the Magi, who were dispersed through Asia after the death of Smerdis—First the revelation of Magic—Second, the impoverishing of Egypt, after the conquest of the Romans caused priests of inferior grades, who trafficked in the secrets of the temples, to abound in Rome—Third, the polytheists who were converted to Christianity, carried into its bosom the knowledge of the magic which they possessed—In the second epoch, the remains only of the sacred science existed; first, in the schools of the Theurgian philosophy; secondly, in the possession of wandering priests, and, above all, of Egyptian priests. As successors to the former may be assigned, with much probability, the secret societies of Europe; tothe latter, the modern jugglers . 201—237

## CHAPTER X.

Enumeration of the wonders that the Thaumaturgists acquired the power of working, by the practice of the Occult Science. 238—243

## CHAPTER XI.

Apparent miracles performed by Mechanism—Moving floors—Automata—Experiments in the art of flying 244—253

## CHAPTER XII.

Acoustics—Imitation of thunder—Organs—Resounding chests—Androïdes, or speaking heads—The statue of Memnon 254—263

## CHAPTER XIII.

Optics—Effects similar to those exhibited in the modern Dioramas and Phantasmagorias—Apparitions of the Gods, and shades of the dead—The Camera obscura—Magicians changing their appearances and their forms, is an incredible miracle 264—292

## CHAPTER XIV.

Hydrostatics—Miraculous fountain of Andros—Tomb of Belus—Statues that shed tears—Perpetual lamps—Chemistry—Liquids changing colour—Condensed blood becoming liquid—Inflammable liquid—The art of distilling alcoholic liquors was formerly known, even beyond the temples . 293—307

## CHAPTER XV.

Secrets employed in working apparent miracles, in initiations, and in religious rites—Those giving security against the effects of

fire, and used in the fiery ordeal, known in Asia and in Italy, and practised in the eastern Roman Empire as well as in Europe, in more modern times—Process by which wood may be rendered incombustible . . 308—323

## CHAPTER XVI.

Secrets to work upon the senses of animals—Ancient and modern examples—Of the power of harmony—The power of good treatment—Crocodiles and snakes tamed—Reptiles whose venom can either be destroyed or extracted—Ancient Psylli—The faculty which they possessed of braving the bites of serpents put beyond doubt, by the frequent recent, and repeated experiments in Egypt—This faculty proceeds from odoriferous emanations, which affect the senses of the reptiles, and escape those of man. . . . . 324—357

BOSTON MEDICAL
DEC 21 1907
LIBRARY

# THE PHILOSOPHY

OF

# MAGIC, PRODIGIES,

AND

# APPARENT MIRACLES.

---

## CHAPTER I.

Man is credulous because he is naturally sincere—Men of superior intellect have reduced their fellow-men to submission by acting upon their passions through their credulity—The recitals of marvels which conduced to this end are not wholly inventive—It is useful as well as curious to study the facts contained in these narrations, and their causes.

MAN is credulous from the cradle to the grave; yet this disposition, the consequences of which plunge him into many errors and misfortunes, proceeds from an honourable principle. Naturally sincere, he is desirous of making his words as correct an expression of his feelings, thoughts, and recollections, as his tears and exclamations of grief, and of joy, and, above all, his looks, and the changes of his countenance, are of his sufferings, his fears, or his pleasures. Speech is more frequently deceptive than silent gesticulations; since it has a greater affinity to art than nature: yet, such

is the strength of that inclination which attracts us to truth, that the man the most habituated to deceit is the most disposed to believe that others respect truth; and, before refusing his credit to the statements of others, he must detect something in them which does not accord with his previous knowledge; or he must have some cause to suspect a design formed to deceive him.

Novelty and the difficulty of reconciling anomalies with experience, will never startle the faith of an uneducated man. There are, moreover, some impressions which all men are inclined to adopt without investigation; and the very singularity of these is perhaps a charm which causes them to be received with more delight. Is this taste we may inquire natural; or is it the result of that education which for so many ages the human race has received from its founders? This is a vast and an unexplored field of inquiry; but it forms no part of our subject. It is sufficient to observe that the love of the marvellous, and the preference ever given to the extraordinary over the natural, have been the cause why facts have been not only too much disregarded but sometimes altogether set aside. There are instances, nevertheless, and we shall bring forward several, where the simple truth has escaped the power of oblivion.

The man of a confiding disposition may be frequently deceived: still his credulity will not be found an instrument sufficiently powerful to govern his whole existence. The marvellous excites but a transient admiration. In 1798, our countrymen observed with surprise how little the sight of balloons affected the

indolent Egyptians. Savages behold Europeans execute feats of skill, and perform physical experiments that they are neither able nor desirous to explain: the exhibition amuses without exciting them, and without invading their tranquil independence.

Man is governed by his passions, and above all by Hope and Fear. What is better able to create, maintain, and exalt these feelings than unrestrained credulity? Reason is perplexed, and the imagination filled with wonders. It is easy to believe in supernatural events; we are apt to discern benefits and punishments in them; and to read in them also the mandates and threats of all-powerful beings, whose direful hands hold the destinies of frail mortals.

From the most ancient times, men of superior intellect, desirous of enthralling the human mind, have adduced miracles and prodigies as the certain proof of their missions, and as the inimitable works of the divinities whom they revered. Seized with terror, the multitude have bent beneath the yoke of superstition; and the proudest man has touched the steps of the altar with his humbled brow.

Ages have passed away, consoled and terrified by turns: sometimes governed by just laws, more frequently subject to capricious and ferocious tyrants, the human race has believed and obeyed. The history of every country and of all ages is encumbered with marvellous tales: but, in the present day, we reject them with a disdain not very philosophical. Do not the convictions which have exercised so powerful an influence on the human race merit a high interest? Shall

we forget that supreme power of Providence, visible we believe in prodigies and miracles, has been almost always the most powerful means of civilization: that the wisest men have doubted whether it were possible for laws, or for durable institutions to exist without the guarantee of an intervention so universally respected ?*

If we consider these facts in connection with their causes, the contempt for them has still less foundation: and the origin of fables which we often deem revolting, merits, perhaps, an honourable place in the History of Mankind. Statements, however incredible they may seem, cannot all be falsehood and illusion. Credulity and invention have alike their limits. Let us study man, not from deceitful traditions, but in his ordinary habits of life, and we shall see that it would be difficult for an imposture to become established if, in our feelings and recollections, we find nothing to second its pretensions—nothing to support them. We recur again to our inquiry. Man is credulous because he is naturally sincere. A falsehood can more easily deny, disguise, and set aside truth than imitate it.†

Invention, even in trifles, costs some effort of which the inventor is not always capable. An inventive genius, also, when exercised for our pleasure or for our instruction, yields at every step to the desire of approaching reality;

* J. J. Rousseau, *du Contrat social*, liv. IV. c. 8.

† It is with difficulty we can imagine anything full of improbability: and we say "a fact of this nature is rarely forged." —*St. Croix, Examen critique des historiens d'Alexandre.—Paris*, 1804. p. 29.

of mingling truth with its creations; convinced that without this artifice, falsehood would find little place in the human mind. With still more reason does the man who has some great interest in practising upon our credulity, rarely revert to a fable which has not for its foundation some fact, or the possibility of which is not at least probable. This skilful attempt appears in referring to distant ages and countries, and to those repetitions with which the histories of prodigies abound, and which so imperfectly disguise the alteration of some of the details. This will be obvious if we can convince our readers, that the greater part of marvellous facts may be explained by a small number of causes more or less easy to discern and to develop.

An inquiry into these causes has not for its object merely the gratification of idle curiosity. Prodigies connected with natural phenomena, inventions, impostures, the sorcery of *thaumaturgy** can, for the most part, be explained by physical science. Viewed in this light, the history of science, its progress, and its variations may furnish valuable ideas respecting the antiquity, the changes, and vicissitudes of civilization; and we may thence draw some curious evidence regarding the sources of part of our knowledge hitherto unsuspected.

Finally, another advantage will reward our researches: history will be presented to us in a new light. We shall restore to it facts; give back to historians a character for veracity, without which the whole of the past would be lost to the annals of civilized man: for, convicted of

* From two Greek words signifying a worker of wonders.

falsehood and ignorance in their narrations, and of a constant repetition of marvellous events, what credit would they merit in their accounts even of the most probable occurrences? Justly denounced as an amalgamation of truth and error, and devoid of interest moral or political. History would be regarded only as an admitted fiction: and has it not been so designated by the learned? But a man who has described and studied the manners of his species, is not reduced to the degradation of preserving only the fables in those records which are supposed to give an insight into past ages. Far from presenting merely a collection of falsehoods and folly, the most marvellous or incredible pages of history open to us the archives of a learned and mysterious policy, which some wise men in every age have employed to govern the human race; to lead it to misfortune, or to happiness; to greatness, or to degradation; to slavery, or to freedom.

## CHAPTER II.

Difference between Miracles and Prodigies—Circumstances that render marvellous Histories credible—1st. The number and agreement of the narrations, and the confidence which the observers and witnesses of them merit.—2nd. The possibility of tracing out some one or other of the principal causes that may have given a miraculous colouring to a natural event.

THE dominion of the marvellous may be divided into two parts: that of prodigies, and that of magical works.

Independent of all human action, prodigies are singular events that nature produces, apparently deviating from those laws which invariably regulate her operations.

Every thing is a prodigy in the eyes of the ignorant man, who sees the universe only in the narrow circle of his existence. The philosopher beholds no prodigies: he knows that a monstrous birth, or the sudden crumbling of the hardest rock, result from causes as natural as the alternate return of night and day.*

* Our author's assertion in this paragraph is too general. Prodigies are, undoubtedly, traceable to natural causes; but not to these in their regular and ordinary operation: on the contrary, they are truly attributable to decided deviations from it. In a

Those prodigies, once so powerfully acting upon the fears, desires, and resolutions of mankind, awaken in the present day only incredulity, and excite the investigation of the learned. In the infancy of society, men possessed themselves of rare facts, and of all real or apparent wonders, in order to hold them up to the eyes of the vulgar, as signs of the anger, the threats, promises, or the benevolence of the Gods.

Miracles and marvellous events, equally in connection with supernatural influence, are often wonders worked by men, whether they pretend that a benevolent or a terrible Divinity employs them as instruments; or whether, by the study of the *transcendental sciences*, they assume that they have subjected to their empire, spirits endowed with some power over the phenomena of the visible world.

Every miracle impresses a religious man with a sense of veneration; at the same time he bestows this name on those supernatural operations only that are consecrated by his belief. We shall, therefore, apply the name *magic* to the *art* of working wonders; and in so doing we shall digress from received opinions, and recal the ancient ideas of faith.

monstrous birth, the same organic force and formative power are exerted in the development of the germ as in ordinary cases; but, in the progress of the development, something occurs to interrupt the action of the organizing principle, and a monster is the result. The formative power is a creative faculty, stamped upon organic matter by the Deity, which modifies it, but operates "blindly and unconsciously, according to the laws of adaptation."[a]—Ed.

[a] *Müller's Physiology. trans.* vol. 1. p. 25.

In the absence of religious revelation to regulate the thoughts, what proof of credibility, we may inquire, would be sufficient to make the thinking mind admit the existence of prodigies and marvellous events?

The calculation of the probabilities will serve as a guide.

It appears to a superficial view much more probable that a man should be deceived by appearances more or less specious, or, that having some interest to deceive, he should himself endeavour to impose, than that there should be perfect agreement in a relation which involves something miraculous. But, if in different times and places many men should have seen the same thing; and if their recitals agree among themselves, then the case is altered.

That which seemed incredible to the wise, and miraculous to the vulgar, becomes a curious but undeniable fact: the vulgar are amused by it; the learned study it, and endeavour to develop its cause.

A single question remains then to be resolved in order to form a just estimate of the past. Must we admit that men have imprudently uttered and recorded falsehoods, and have found other men, in all times, ready to believe absurdities? Is it not more rational to conclude that those recitals, in appearance marvellous, are founded on reality, particularly when they can be explained sometimes by the human passions, occasionally by the state of science in former times?

I shall fearlessly cite those witnesses hitherto regarded with suspicion; although they have narrated events that have been reputed impossible. The discredit into which

they have fallen makes part of our argument which goes to show that discredit cannot be justly opposed to their narrations.

Is it credible, I may ask, that, in the year A.D. 197, a shower of quicksilver could have fallen in the Forum of Augustus at Rome?

Dion Cassius,* who relates the event, did not see it fall, but he observed it immediately after its descent: he collected some of the drops, and rubbed them upon a piece of copper in order to give to it the appearance of silver, which he affirms it preserved for three entire days.† Glycas also speaks of a shower of quicksilver, which fell in the reign of Aurelian.‡ But the authority of this annalist is weak, and there is reason to believe, that he has only disfigured the account of Dion by an anachronism. The rarity and value of mercury at

* Dion Cassius Cocceianus, the son of Cassius Apronianus, a Roman Senator, was born at Nicæa in Bithynia, A.D. 155. Although he was on his mother's side of Greek descent, and wrote in the language of his native province, yet he was truly a Roman; and enjoyed the rank of a Senator under Commodus. He also held several important official situations under Alexander Severus. His History of Rome, from the period of Augustus to his own age, is justly esteemed.—Ed.

† "*Cœlo sereno pluvia rori simillima, colorisque argentei, in forum Augusti defluxit, quam ego, et si non vidi cum caderet, tamen ut ceciderat, inveni; eaque, ita ut si esset argentum, oblivi monetam exœre, mansitque is color tres dies; quarto vero die quidquid oblitum fuerat evanuit.*"—Xiphilinus, *in Severo.*

‡ "*Aureliano imperante argenti guttas decidisse sunt qui tradant.*" (Glycas. *Annal.* lib. III.) Little is known about this author. He wrote a Chronicle of events from the Creation to the year A.D. 1118. It has been valued on account of its Biblical references.—Ed.

Rome, in both reigns, set aside the possibility that the quantity necessary to represent rain could have been thrown by any one into the Forum. This story is, indeed, too strange to be believed in the present day. Must it then be absolutely rejected? Any one may say, it is impossible—it never could occur: but to whom does it belong to determine the limits of possibility, those limits which science is extending every day under our own eyes? Let us examine, let us doubt, but let us not be too hasty in denying the possibility of such an occurrence.*

If a similar prodigy had been related at different times by different writers; if it had been renewed in our own times, beneath the eyes of experienced observers; it would no longer be regarded as a fable or an illusion, but as a phenomenon, which would have a place in those records to which science consigns facts, which she has recognized as certain without being able to explain them.

We at one time regarded as fables all that the ancients recorded respecting the falling of stones from the sky. In the commencement of the nineteenth century, the

* There are many reasons for disbelieving the account of Dion. In the first place, he did not see the shower fall; he gives no idea of the quantity of the quicksilver precipitated; and he collected only some drops; but, as the metal fell in a shower, and as it would not sink into the ground nor evaporate like water, the quantity must have been too considerable to require it to be collected in drops. In the second place, metallic mercury is rarely found any where in large quantity; and it must have been elevated into the atmosphere in the form of vapour, and condensed there, before it could descend in a shower. The story is altogether unworthy of credit.—Ed.

most distinguished of the French philosophers rejected, with some degree of harshness, the relation of a shower of aerolites; but a few days afterwards they were forced to acknowledge its truth: and the narration has been verified by the frequent repetition of this phenomenon.*

On the 27th of May, 1819, a violent hail-storm

* Although the fall of aerolites, or meteoric stones is not now doubted, yet it does not augment the credibility of the shower of quicksilver related by Dion; it only shows us how cautious we ought to be in rejecting the accounts of ancient writers, however inconsistent with our experience. The most authentic account of a fall of aerolites is that which describes the phenomenon as it occurred near L'Aigle, in Normandy, in 1803. About one o'clock in the afternoon, the sky being clear, a ball of fire was observed in the atmosphere in different parts in Normandy, and, at the same time, loud explosions were heard in the district of L'Aigle. These lasted for five or six minutes, resembling the discharges of cannon and musketry, followed by a long, rolling noise like that of many drums. The meteor, whence the noise seemed to proceed, was like a small triangular cloud, which remained stationary; but vapour seemed to issue from it after each explosion. Throughout the whole district a hissing noise, like that caused by stones thrown from a sling, was heard; and a great number of stones fell to the ground. Above two thousand were collected: they varied in weight from two drachms to seventeen pounds and a half. Aerolites, in whatever part of the world they have fallen, resemble one another in composition, and consist of silica, iron, magnesia, nickel, and sulphur; but in proportions different from those in any stones known on the surface of our globe. Numerous conjectures have been advanced respecting the source of these stones. They have been supposed to be projected from the moon; or from volcanoes; or to be formed in the atmosphere; the most probable theory is that proposed by Chladni, namely, that these meteors are either

devastated the country of Grignoncourt.* The mayor of the place had some of the hail-stones collected; they weighed upwards of a pound avoirdupois; and when they were dissolved, he found in the centre of each a stone of a clear coffee colour, from about six to eight-tenths of an inch in thickness; flat, round, polished, and with a hole in the centre, into which the little finger could be inserted.† Such stones had never been observed before in the country: they were seen scattered upon the ground wherever the hail had fallen. I read the account of the phenomenon in a memorial (*Procès verbal*), addressed to the sub-prefect of Neufchâteau by the mayor, who *viva voce* related the same details to me; and the clergyman of the parish confirmed the account. It might be said that the tempest and violent fall of the hail had forced up to the surface stones previously buried in the earth. The personal observation of the mayor, however, refutes this hypothesis. Curious to know the truth, I examined the soil at the time where the plough opened it more deeply than the hail could possibly have done, and I could not discover a single stone similar to those that the mayor described in his narration.‡

original, small, solid bodies, or fragments separated from larger masses moving in space round the earth in eccentric orbits; and containing, according to Sir H. Davy, combustible or elastic matter.—Ed.

* Neufchâteau in the department of the Vosges.

† Upon the banks of the Ognon, a river flowing about ten leagues from Grignoncourt, a great quantity of similar stones was found. Could they also be the product of a hail-storm charged with aerolites?

‡ It is not likely that he could discover any; for, although the fall

Shall we reject a fact attested in so precise a manner? In Russia, in 1825, a fall of hail-stones, in which were enclosed meteoric stones, took place. The stones were sent to the Academy at St. Petersburg.* On the 4th of July, 1833, in the district of Tobolsk, enormous hail-stones were seen to fall simultaneously with cubical aerolites. Macrisius relates, that in the year 723, of the Hegira, an enormous-hail shower fell, the stones of which weighed from one to thirty rotts.†

With what disdain, what ridicule, should we treat an ancient author if he told us that a woman had a breast on her left thigh, with which she nourished her own and several other children: yet, this phenomenon has been vouched for by the Academy of Sciences at Paris.‡ The known correctness of the philosopher who examined it, and the value of the testimonials upon which he rested

of aerolites be true, yet the improbability of the stones being such as stated is evident. The story is thus justly criticized in the North British Review, vol. III. p. 7. "The phenomenon," says the critic, "was never seen in any other place, and the enveloped stone was not a substance known to have a separate existence like quicksilver. A great quantity of circular, perforated discs of a polished and transparent mineral, could only have come from a jeweller's shop in the moon, consigned to another jeweller in the atmosphere, who set them in ice for the benefit of the Mayor of Grignoncourt."—Ed.

* Chemical analysis gave the composition of these stones—70 per cent. of red oxide of iron; 7.50 manganese; 7.50 silex; 6.25 micaceous earth; 3.75 argil; 6 sulphur.—*Bulletin Universel des Sciences*, 1825, tome III. p. 117. No. 137. 1826, tome VIII. p. 343.

† Kitab-at-Solouk. Quoted by M. Et. Quatremère.—*Mémoires sur l'Egypte*, vol. II. p. 489—490.

‡ Séance du 25 Juin, 1827. See *Revue Encyclopédique*, tome XXXV. p. 244.

his veracity, would have been sufficient to have placed the matter beyond a doubt.*

There is still one cause which diminishes and destroys much of the improbability of marvellous events: it is the facility which one finds in stripping these events of every thing monstrous, such as at first provoked a challenge. In order to effect this, it is always necessary to allow for that spirit of exaggeration peculiar to the human mind. It is ignorance which prepares credulity to receive prodigies and apparent miracles; curiosity excites; pride interests; the love of the marvellous misleads; anticipation carries us on; fear subdues; and enthusiasm intoxicates us; whilst chance, that is to say, a succession of events, the connection of which we do not perceive, and which also permits us to attribute effects to erroneous causes, seconding all these agents of error, sports with human credulity.

Apparent miracles have been produced by the science, or by the address of able men, who, in order to rule the people, have worked upon their credulity; or the same individuals have made use of those prodigies which strike the eyes of the vulgar; of those real or apparent miracles, the existence of which is rooted in their minds. Both cases will enter into our discussions. We will develop also the progress of a class of men, who, founding their empire upon the marvellous, are anxious

* This was one of those sports of nature, which are not unfrequently seen, and which cannot be reasoned upon. As it may be a solitary instance of the kind, there might have been indeed, and properly, much doubt respecting the credibility of the narrative mentioning it, had the phenomenon not been seen, and the nature of it investigated by those well qualified for the task.—Ed.

that it should be recognised in every thing; and as anxious to dupe the stupid multitude, who so easily consent to see the marvellous every where.

We shall narrow also the domain of the Occult Sciences within its true limits; the principal end of our investigations, if we can exactly point out the causes, which, with the efforts of Science and the works of Nature, concur in producing apparent miracles, or even in determining the importance, and solving the nature of the prodigies which thaumaturgists employ, prompt to bolster up their real powerlessness by the efforts of their ingenuity.

In this discussion, we shall not be afraid of multiplying examples, nor of hearing the reader exclaim: I know all that! He, doubtless, may know it; but has he deduced from it the consequences? It is not enough to offer a plausible explanation of some solitary facts: we must collect and compare a considerable mass of them, in order to be able to draw the conclusion, that, as in each branch of our system, our explanations tend to preserve the foundation of truth, and to remove the marvellous from a great number of events, it is extremely probable this system has truth for its foundation, and that there are no facts to which it may not apply.

## CHAPTER III.

Enumeration and discussion of Causes—Singular and deceptive appearances of Nature—Exaggeration of the details and duration of Phenomena—Improper terms, ill-conceived and badly explained—Figurative expressions—Poetic style—Erroneous explanations of Emblematic Representations—Allegories and Fables adopted as real facts.

So great is the charm attached to anything of an extraordinary nature, that the man whose mind is but little enlightened, regrets when his dreams of the marvellous are dispelled by truth, and is vexed when forced to confess that the slightest unusual appearances are, in his eyes, capable of transforming the immoveable objects of nature into living or moving beings. This charm and the tendency to exaggeration, which is a consequence of it; the permanence of those traditions which would recal events as still existing that have ceased for ages; the singular pride which nations have in transferring into their own history; the fabulous and allegorical traditions received from some race preceding them; incorrect expressions; the still more inaccurate translations of ancient narratives;

the energy peculiar to the languages of antiquity; and the figurative style essentially belonging to poetry, —that is to say, to the first language in which the knowledge of the past was impressed on the memory of the people; the desire natural to a half civilized community to explain allegories and emblems, the meaning of which was known only to the learned; that interest which leads both noble and base passions to make use of the marvellous in acting upon the credulity of the present and the future; all conduce to deception, and are the causes which, separately or collectively, have debased the records of history with an immense number of marvellous fictions, although these repositories of knowledge have not required their powerful aid.*

In order to disencumber truth from the mantle of the marvellous, it will be found sufficient to place, by the side of the pretended wonders, a similar fact not yet employed by superstition in support of her assertions; and then to separate from the accessories attached to it, some one of those causes, the influence of which we have just noticed.

The ringing of the bells at Rheims had the effect of shaking one of the pillars in the Church of St. Nicasius;†

* One of these fictions, the production, duration, and universality of which belong to the union of these different causes, appears to us worthy of a separate notice. See Appendix, note A. *On Dragons and monstrous Serpents, which have figured in a great number of historical and fabulous recitals.*

† He was the ninth Bishop of Rheims. He was killed in the sacking of that city by the Vandals in 407. (*Stilting's Life of St. Viventius*).—Ed.

and giving to that heavy mass a vibration which continues for some minutes. A minaret of brick near Damietta, also, received a very apparent movement from the pushing of a single man placed near its summit.* These accidents, which were certainly, neither foreseen nor intended by the architects would in the hands of a wonder-worker, become the act of some Divinity. The mosque of Jethro at Hhuleh† is renowned for its trembling minaret. The officiating priest places his hands on the ball at its summit, and invokes Ali. At this sacred name the minaret trembles: and the movement is so violent, as to cause the curious who are mounted on its summit, to dread being precipitated below.

Many of the metamorphoses, and of the wonders consecrated in the history, or embellished by the poetry of the Greeks and Latins, are no more than the historical translations of some particular names of men, nations, or places;‡ and they might be easily explained, if instead of saying, that the recollection of the miracle had given origin to the name of the town, the man, the people, or the country, we should say, on the contrary, that the name had originated the miracle. We have confirmed

* Macrisius, quoted by E. Quatremère, *Mémoires sur l'Egypte*, tome 1. p. 340.

† Hhuleh or Halleh, a town situated on the Euphrates, in the Pashalik of Bagdad. In 1741, the traveller A'bdoul Kerym, (*Voyage de l'Inde à la Mekke, Paris*, 1757), witnessed this miracle; he tried in vain to accomplish it himself, but he had not the secret of the priest.

‡ *Essai historique et politique sur les noms d'Hommes, de Peuples, et de Lieux*, par Eugène Salverte. Passim.

this remark in another place; and have, at the same time, pointed out the origin of these significant names.

If the adoption of narrations evidently of fabulous origin, proceeds from a love of the marvellous, how much more readily will this disposition lead us to contemplate with astonishment some of the sports of nature, such as the appearances of rivers flowing in waves of blood, or the resemblance of rocks to men, animals, or ships.

Memnon fell beneath the blows of Achilles;* the Gods collected the drops of his blood, and formed of them that river which flows through the valley of the Ida.† Upon every anniversary of that fatal day, when the son of Aurora fell a victim to his courage, the waters of that river assume the colour of the blood from which their origin was derived. In this, as in a thousand other instances, the Greek tradition is copied from one still more ancient. From Mount Libanos flows the river Adonis: at the same period of every year, it assumes a deep red tint, and rolls in bloody looking torrents to the sea. It is the blood of Adonis; and the prodigy indicates the period proper for commencing the mourning ceremonies in honour of this demi-god. An inhabitant of Byblos explained the phenomenon, by observing that the soil of Mount Libanos, where it is watered by the Adonis, is composed of a red earth; and that, in a certain period of the year, the wind drying up the earth raises clouds of dust, and carries them into the river.

* *Q. Calaber. Prætermiss. ab Homer,* lib. II.

† *Traité de la Déesse de Syrie,* (Œuvres de Lucien), tome v. p. 143.

The water of a lake at Babylon reddens for several days the colour of the earth bathed by it, "which suffices," says Athenius, "to explain the phenomenon." Analogous suppositions account for the change of colour, which the river Ida regularly experiences. During the rainy season, or when the snow is melting, its waters probably reach and partly dissolve a bank of ochrous earth, impregnated with sulphate of iron, the presence of which is detected by the unwholesome vapours emitted from the stream. The miraculous appearance is thus reproduced only at a certain period; indeed, on that particular day when the waters of the river acquire their greatest elevation.

In Phrygia, where Diana is said to have rewarded the love of Endymion, is seen from a distance the spot which was the scene of their enjoyment; and we are led to believe, that we see a rill of fresh milk of a dazzling whiteness flowing near it: but on approaching the spot, this milky rill disappears; and, at the foot of the mountain, a simple channel* hollowed in the rock is all that is visible; the prodigy has disappeared. An optical illusion which dispels itself, is sufficient nevertheless to perpetuate the belief in the existence of the lactiferous rill.

A rock near the island of Corfu has the appearance of a ship in sail.† Modern observers have confirmed this resemblance which also struck the ancients, and which is not a solitary instance. In another hemisphere, near the land of the Arsacides, a rock, named Eddystone, rises from the bosom of the waves, and so closely resembles a

* Plin. *Hist. Natur.* book IV. chap. XII.

† *Observations sur l'Isle de Corfu, Bibliothèque Universelle*, vol. II. p. 195.

ship in sail, that French and English navigators have been more than once deceived.*

In the present day, we only note these singular objects. In the eyes of the ancient Greeks, the rock near Corfu was the vessel which, having brought Ulysses back to his country, was changed into a rock by Neptune, indignant that the conqueror of his son, Polyphemus, should again see Ithaca and Penelope. We must here observe, that this story is not founded on a poetic fiction only, but perpetuates a pious custom, practised by ancient navigators, of dedicating to the Gods a representation, in stone, of the vessel which had borne them safely in some perilous voyage. Agamemnon dedicated a vessel of stone to Diana, when this goddess, happily pacified, taught the art of navigation to the warlike ardour of the Greeks. A merchant in Corcyra consecrated to Jupiter a similar representation, which some voyagers, nevertheless, believed to be the ship in which Ulysses returned to his native land.†

A rock which is first descried upon the side of Mount Sipylus, was regarded by the ancients as the unfortunate Niobe transformed into stone by the anger, or the pity of the Gods. Q. Calaber notices this meta-

* Labilladière, *Voyage à la recherche de la Peyrouse*, 4to. Paris, an VIII. tome I. p. 215.

† Procopius, *Histoire mélée*, chap. XXII. Upon a high hill near the town of Vienna, department of the Iser, is a monument called the Boat of Stone. A vaulted cavern is all now remaining of it. Its name, explained by no local appearance or tradition, must have been preserved by some ancient fable. It most probably supported a boat of stone, dedicated to the Gods, by voyagers escaped ; from the perils of the Rhone navigation, and who placed it

morphosis, at once admitting and explaining it. "Far off," he exclaims, "is seen the figure of a woman stifled by sobs and melted in tears; but on approaching nothing is visible but a mass of rock detached from the mountain."* "I have seen this Niobe," says Pausanias; "it is a "craggy rock, which when viewed near, bears no resemblance to a woman; but, when seen from a distance, it has the appearance of a female figure, with the head bent down, as if shedding tears."†

Endemic diseases have in figurative language been termed the arrows of Apollo and Diana, because their origin was referred to the influence of the sun and the moon upon the atmosphere; or more properly to those sudden changes from heat to cold, and dryness to dampness, attendant upon the succession of day and night in a mountainous and wooded country. There is nothing more probable than that one of these diseases, peculiar to the neighbourhood of Mount Sipylus, should have carried off the children of a chief, before the eyes of their distracted mother. Superstitious man, ever imagining that he sees in misfortune the existence of crime, believed that Niobe, too proud of the prosperity of her

on so elevated a spot, that all passengers embarked on the river might see it.

* *Q. Calaber,* lib. I.

† *Pausanias, Attic,* XXI. — On the Calton Hill, at Edinburgh, is a tower erected to the memory of Lord Nelson. The rock on which it stands displays nothing uncommon when viewed near, or at its base; but at a distance, in some positions, it represents a very accurate profile of the head of the hero. —ED.

numerous family, was justly punished for having dared to compare her happiness to that of the divinities, whose resentment she experienced: and in the remembrance of this unfortunate mother, as well as observing that the rock resembles a female figure, in tears, credulity beholds in it the portrait of Niobe. And all this may, with as much probability, have been a real history, as an allegory intended to show, by a picture of the instability of human prosperity, the folly of presumption. In either case, the priests of Apollo and Diana seconded, if they did not create, the established belief; and delighted to show upon Mount Sipylus, this imperishable monument of the vengeance of the Gods.

On surfaces of rocks, full of inequalities, are almost always to be found forms which recal to us some familiar object. The eye eager in discovering wonders would easily recognize these impressions, as the production of a supernatural power. I will not cite as an instance the impression of the foot of Budda upon the Peak of Adam, at Ceylon, because an attentive observer* has suspected it to be a work of art; and this, probably, is also the case with the print of the foot of Gaudma, three times reproduced in the Burmese Empire, and which is more a hieroglyphic† than a freak of nature. But in Savoy, not far from Geneva, the credulous

* Dr. John Davy, who states this as his opinion in a letter to his brother, Sir Humphrey Davy.

† Symes' *Travels in Ava,* vol. II. p. 61 and 73, and atlas, plate VIII.

peasant shows a block of granite, upon which the devil and his mule have left evident traces of their footsteps. Traces, not less deep, upon a rock near Agrigentum, mark the passage of the cattle conducted by Hercules.* This hero's foot has left, also, near Tyras in Scythia an impression of two cubits in length;† and upon the banks of the Lake Regillus, the form of a horse's foot imprinted upon a very hard stone, attests the apparition of *Dioscurus*, who announced in Rome the victory gained by the Dictator Posthumus‡ over the Latins in that place.

Upon the sides of a grotto near Medina, the Mussulman sees the impression of Mahomet's head; and upon a rock in Palestine that of his camel's foot, as perfectly marked as it could be in the sand.§ Mount Carmel is honoured by preserving the print of Elijah's foot; and that of the foot of Jonas is repeated four times near his tomb, in the neighbourhood of Nazareth. Moses, when hid in a cavern, left the impression of his back and arms upon the rock. Near Nazareth the mark of the Virgin Mother's knee is revered by Christian pilgrims; also the impressions of the feet and elbows of our Saviour upon a rock rising from the middle of the Brook Cedron: and that of his foot in the identical place from which we are assured he quitted earth to ascend to his heavenly abode. The stone upon which the body of St. Catherine was laid, is said to have softened, and retains the

* *Diod. Sic.* lib. IV. cap. 6.

† *Herodot.* lib, IV. cap. 82.

‡ Cicer. *De nat. Deor.* lib. III. cap. 5.

§ Thévenot, *Voyage au Levant*, p. 300 et 320.

impression of her back.* Not far from Manfredonia, our admiration is excited by the face of St. Francis† in relief, upon the rock of a grotto. Near the dolmen of Mavaux, the villagers exhibit a stone which the mare of St. Jouin struck, and left the impression of her foot, one day when the pious Abbé was tormented by the devil.‡ Another dolmen in the commune of Villemaur‖ bears the print of St. Flavy's ten fingers.

Numerous as these instances are, (we might relate many more) they fatigue neither faith nor piety; they are adopted and revered; and, notwithstanding the falsehood of the stories, they are believed in most countries.§

At a little distance from Cairo, the impression of Mahomet's two feet is exposed to the veneration of the Faithful.¶ The Mountain of the Hand, on the eastern bank of the Nile, is so named from being supposed to bear the impression of the hand of Christ.** At the

* Thévenot, ibidem, pages 319, 320, 368, 369, 370, 425 and 426.

† Swinburne's *Travels,* vol. II. p. 137.

‡ *Mémoires de la Société des Antiquaires de France,* tome VIII. p. 454.

‖ *Mémoires de la Société d'Agriculture du Département de l'Aube,* 1er trimestre.

§ How lamentable is it to reflect, that such pretended prodigies, the inventions of bigotry and misdirected enthusiasm, should be regarded as in any degree essential for propagating and supporting a faith, which requires nothing but its innate purity to prove its divine origin and to sustain its truth.—ED.

¶ J. J. Mared. *Contes du Chegh et Mohdy,* tome III. p. 133.

** Khalil Dakery cited by E. Quatremère, *Mémoires sur l'Egypte.*

north of the town of Kano in Soudan, there is a rock which presents to the zealous Mussulman a gigantic impression of the camel's foot, upon which Mahomet ascended to Heaven.* In the Church of St. Radegonde, in Poitiers, is a stone upon which our Saviour is said to have impressed the form of his foot ;† and upon a rock near Vienna, the inhabitants of the Department of La Charente still recognize the print of St. Madelaine's right foot.‡

Near La Devinière, a place to which the memory of Rabelais has given a very different kind of celebrity, is to be seen the impression of a foot resembling that of St. Radegonde :§ so natural is it for man to attribute

* *Travels in Africa*, by Denham, Clapperton, and Oudney, vol. III. p. 7 and 8, 1832.

† *Mém. de la Société des Antiquaires de France*, tome VII. p. 42, 43.

‡ Ibid.

§ Eloi Johanneau. *Commentaire sur les Œuvres de Rabelais*, t. v. p. 12.—Mankind do not always connect religious notions with the extraordinary ideas they adopt, when endeavouring to explain some unusual appearance in nature. At the foot of a precipitous rock, near Saverne, are four impressions, well marked, upon the red freestone (freestone of the Vosges). According to a tradition, some three or four centuries old, a nobleman pursuing a stag, or pursued himself by victorious enemies, was thrown from the summit of the rock without being hurt, the horse only leaving the print of his feet upon the stone. We must here observe that after the appearance of these prints of the horse's feet, other impressions less in size being discovered, the workmen, it is said, amused themselves by enlarging the latter and deepening the former. If it had not been for this last circumstance, the phenomenon would naturally, in the present day, have attracted the attention of the learned. According to M. Humboldt and other naturalists,

some remarkable prodigy to places which his national vanity, or his religious faith, renders dear to him.

In proof of the opinion that there is a desire to convert natural objects into prodigies, Bethlehem formerly offered a striking example. According to Gregory of Tours, when a person reposed upon the brink of a well, with the head covered up in linen, the star which guided the three Magi was seen to pass from one side of the well to the other, brushing the surface of the water:—"But," adds the historian, "it was visible to those pilgrims only who were by their faith worthy of such a favour: that is to say, to men whose minds were so preoccupied by the truth of the tradition as not to perceive in what they beheld, only a sunbeam reflected in the water."*

Secondly. In reducing to truth those histories in appearance fabulous, it will be often found sufficient

the impressions observed upon the freestone of Hildburghausen must have been made by footsteps of antediluvian animals, either quadrupeds or quadrumanni, before the stone had completely hardened. Mr. Hitchcock has discovered upon the red freestone of Massachusetts, an immense number of the impressions of the feet of birds of a species no longer existing; but M. de Blainville thinks it possible that these may be only the impression of vegetables, similar to those which the red freestone frequently presents.

To this sensible note, the Editor would add, that impressions of the feet of animals have frequently been found by geologists in secondary rocks. An American geologist even asserts that the prints of human feet are to be seen in the secondary limestone of the Missisippi, near St. Louis.—*American Journal of Science*, vol. xxxiii. p. 76.

* Greg. *Turon miracul.* lib. § 1.

to reduce to natural proportions details evidently exaggerated; or to regard, as a weak and passing phenomenon, that which is presented as a continued and active miracle. The diamond and the ruby, carried suddenly into darkness, after a long exposure to the light of the sun, emit for some time an apparent phosphorescent light: a circumstance, which, in the energetic style of the oriental writers, has produced accounts of diamonds and carbuncles illumining all night, by the fires they emit, the depths of a dark wood and the vast saloons of a palace.

Under the name of *Roukh*, or *Roc*, the same narrators have described a monstrous bird, whose strength exceeds all probability. In reducing this exaggeration to the measure of positive fact, Buffon was enabled to recognise in this *Roc*, an eagle, whose strength and dimensions nearly resembled those of the American *Condor*, or the *Lammer Geyer* of the Alps.* As far as we can judge,

* Gypäetus *barbatus*, *Bearded Griffin of the Alps* of Ornithologists, which Buffon confounded with the Condor, Surcoramphus *Gryphus*, Great Vulture of the Andes. No better instance of the effect of exaggeration, in reference to natural objects, imperfectly known, could be advanced, than the early accounts of the Condor. Setting aside writers of romance, we find Desmarchius, a naturalist, stating that the extended wings of the bird measure eighteen feet; that it can carry off a stag, and will attack a man; and Linnæus, misled by the narrators of the wild and wonderful, says, "that in nearing the earth, the rushing of its wings renders men as if planet struck, and almost deafens them!" The most authentic account of the largest Condor ever seen gives the measurement of the extended wings under fourteen feet; and Humboldt saw none that exceeded nine feet. The utmost length of the male bird, from the tip of the beak to the extremity of the

the *Roc* differs in little from the Burkout,* a very strong black eagle, frequenting the mountains of Turkistan, of whom the inhabitants relate the most extraordinary stories, and have even declared it to be as large as a camel.

Although we may disbelieve all that has been related respecting the immense *Kraken* of the north; and may accuse Pliny and Aelian of having exaggerated the dimensions of the two polypi of the sea, which were, nevertheless, seen by many who observed them, nearly at the same time when these authors wrote; yet, it will be sufficient to admit with Aristotle, that the arms of these polypi grew sometimes to six feet seven inches in length: and, with the authors of the new Dictionary of Natural History, we may believe that they were able to destroy a man in an open boat.† What becomes, then, of the tradition of Scylla? That monster, the scourge of the strongest fish that passed within its reach, and

tail, is rather more than three feet; and his height, when perched, two feet nine inches. The head of the male bird carries a comb, and, like other vultures, the head and neck are bare of feathers. The plumage is black, except the wing coverts, which are white; the claws are less powerful than those of the eagle. The Condor inhabits the Andes at an elevation of 10,000 to 15,000 feet above the level of the sea: it usually hunts in pairs, and the couple will attack large quadrupeds; but Humboldt affirms that he never heard of men, nor even children having been carried off by them. From these facts the reader may form some idea of the reliance to be placed on extraordinary stories.—Ed.

* In Russian, *Berkout;* in Chinese, *Khar-tchaa Hiao.* Guinkowski, *Voyage à Pekin*, tome I. p. 415.

† See *Pliny, Hist. Nat.* lib. IX. cap. 30. *Aelian. De Nat. Anim.* lib. XIII. cap. 6. *Aristot. Hist. Animal*, lib. 4 cap. 1. et le *Nouveau Dictionnaire d'Histoire naturelle*, 8vo. 1819, tome XXX. p. 462.

which, raising its six heads from beneath the water, drew in upon its long necks, six of Ulysses' rowers?* If we substitute for the poetical exaggeration, the possible reality, this monster would be no more than an overgrown polypus of great size, fastened to the rock towards which these inexperienced navigators, fearing the whirlpool of Charybdis, directed their frail vessel. How many other fables in Homer are merely natural facts aggrandized by the poetical conception of the narrators?

In enumerating plants endowed with magical properties, Pliny names three, which, according to Pythagoras, had the power of freezing water.†

In another place, without reference to magic, Pliny bestows a similar property on the hemp. According to him, the juice of this plant thrown into water, thickens it suddenly to the consistence of jelly.‡ Many mucilaginous vegetables produce the same phenomenon in different degrees; and, among others, the Althea *cannabina* of Linnæus, and the rose coloured Vervain, Verbena *Aubletia*. "We have observed," says Valmont de Bomasi, in speaking of this latter plant, "that three or four leaves bruised, and put into an ounce of water, will give to it in a few moments the consistence of apple jelly."§ Althæa *cannabina* produces the same effect to a

* *Homer, Odyss.* lib. XII. vers. 90, 100, et 245, 269.

† *Plin. Hist. Nat.* lib. XXIV. cap. 12 et 13.

‡ *Idem*, lib. XX. cap. 23.

§ *Dictionnaire d'Hist. Art.* Obletia. The common Vervain, *Verbena officinalis*, indigenous in England, and many parts of Europe, had formerly the reputation of possessing wonderful magical powers.

certain degree; and it may also be obtained from every vegetable containing much mucilaginous matter: the fact before stated has been, therefore, merely exaggerated.

The plant named by Aelian *Cynospastos* and *Aglaophotis*, and *Barras* by the historian Josephus, bears a flame coloured flower, which towards evening flashes like a kind of lightning.* It has been stated that a similar effulgence might be perceived upon the flower of the Nasturtium, at the moment of its fertilization; and, above all, in the evening after a very hot day. Experience has not confirmed this fact; nevertheless, we must not utterly reject the possibility of other vegetables, such as the Agaric of the *Olive-tree*, and the Euphorbia *phosphorea*, emitting such a light under particular circumstances. The error of Josephus and Aelian consists in supposing a casual phenomenon to be constant.†

"In the valleys bordering on the Dead Sea," says the traveller Hasselquist, "the fruit of the Solanum *Me-*

It was termed *Hiera Botane*, "Holy Herb," by Dioscorides; and it entered into the composition of various charms and love-philters. Among the common people, it has still the reputation of securing affection from those who take it to those who administer it. It was held in great esteem by the Romans, and the Druids; and the latter gathered it with religious ceremonies. These pretensions of the Vervain were first set aside by the good sense of our countryman John Ray, the Botanist.—Ed.

* Fl. *Joseph de Bello judaico.* lib. vii. cap. 25; *Aelian de Nat. animal.* lib. iv. cap. 27. This plant is the Atropa *Belladonna.*

† *Comptes rendus des Séances de l'Académie des Sciences,* 2 vols. 1837.

*longena* (Linn.)* is attacked by an insect, (a Tenthredo) which converts the whole of the interior into dust, leaving the skin only entire, without destroying its form or colour." It is in the same district that Josephus places the *Apple of Sodom*, which, he relates, deceives the eye by its colour, and crumbles in the hand into ashes evolving smoke, a phenomenon intended to commemorate, by a permanent miracle, a punishment as just as it was terrible. This particular incident, observed by the modern naturalist, has been generalized by the ancient historian, who has also added to it the divine malediction.

An American naturalist† affirms that, at the approach of any danger, the young of the rattle-snake take refuge in the mouth of their mother. A similar instance may have induced the ancients to suppose, that some animals produce their young by the mouth, thus drawing a most absurd and hasty conclusion from a real fact.

In some cases the duration of a phenomenon has been exaggerated, and in others that which has long ceased to exist, has been described as still existing. " The Lake Avernus," say the ancient writers, " received its name from the fact that birds could not fly over it

* Hasselquist, *Voyage dans le Levant*, tome II. p. 90. The traveller Broucchi not having found the Solanum *Melongena* on the borders of the Dead Sea, or near Jerusalem, thinks that Hasselquist had been deceived, and that the Apple of Sodom is merely a gall nut, formed by the incision of an insect upon the Pistacia *terebinthus.—Bulletin de la Société de Géographie*, tome VI. p. 3.

† Will. Clinton. *Preface to the Transactions of the Philosophical Society of New York*, 1825. *Bibliothèque universelle, Sciences*, tome II. p. 263.

without falling down dead, suffocated by the vapours exhaled from it." We know that, in the present day, birds fly with impunity near to its surface. Is the tradition thus cited then utterly false? Some reasons induce me to doubt:—"For," says a traveller,* "the marshes of Carolina are in places so insalubrious, and so completely surrounded by great woods, that, during the heat of the day, birds as well as aquatic animals die in attempting to cross them. Full of sulphureous springs,† and, like the marshes of Carolina, surrounded by thick forests, the Lake Avernus‡ formerly exhaled most pestilential vapours; but, Augustus having had these woods thinned, this insalubrity was succeeded by an agreeable wholesome atmosphere. The prodigy has ceased to exist, but the tradition has been obstinately preserved; and the imagination struck with a religious terror, looked for a long time upon this lake as one of the entrances to the Valley of Death. §

* M. Bosc. *Bibliothèque universelle, Sciences,* tome v. (Mai, 1817), p. 24.

† *Servius in Æneid.* lib. III. vers. 441.

‡ *Aristot. da Mirab. Auscult.*

§ A real valley of death exists in Java. It is termed the *Valley of Poison,* and is filled to a considerable height with carbonic acid gas, which is exhaled from crevices in the ground. If a man, or any animal, enter it he cannot return; and he is not sensible of his danger until he feels himself sinking under the poisonous influence of the atmosphere which surrounds him, the carbonic acid of which it chiefly consists rising to the height of eighteen feet from the bottom of the valley. Birds which fly into this atmosphere drop down dead; and a living fowl thrown into it, dies before it reaches the bottom, which is strewed with the carcases of various animals that have perished in the deleterious gas.—Ed.

Thirdly. Improper or ill-conceived expressions, not less than exaggeration, tinge a real fact with a marvellous, false, or ridiculous colouring.

A popular error, the origin of which has been traced to the instructions of Pythagoras, had for a long time established some mysterious connection between particular plants, and the diseases which men suffer at the period of their blossoming: and, although the disease might be perfectly cured, yet, when these plants flowered again, the individuals always re-experienced* some faint return of the disease. This is a fact incorrectly stated, in order to deceive the multitude who scarcely can distinguish the different periods of the year, except by the phenomena of vegetation: the fact has no connection with the plants, but strictly belongs to the revolutions of the seasons. The spring, for instance, frequently brings with it periodical returns of gout, rheumatism, and even diseases of the brain.†

The appearance of falsehood and prodigy, joined to impropriety of expression, is more striking when ancient authors repeat what has been related to them respecting foreign countries in any other language than their own;

* Plin. *Hist. Nat.* lib. xxiv. cap. xvii.

† Although the above explanation is true in part; yet, it is also true that various odours, such for instance as that of Ipecacuanha and of the Pelargonium or African Geranium, cause in some individuals an attack of spasmodic catarrh: in others the odour of sweet vernal grass, Anthoxanthum *odoratum*, brings on a fit of asthma attended with fever, hence the term *hay-asthma*; and such persons always suffer at hay-making time, for as the grass dries, the odour is most powerfully exhaled.—Ed.

or when modern writers translate without fully understanding the originals, and then accuse them of error.

"In the vicinity of the Red Sea," says Plutarch, "are seen creeping from the bodies of some diseased people little snakes, which, on any attempt to seize them re-enter the body, and cause insupportable suffering to the wretched beings."* This statement has been regarded as an absurd story, and yet it is an exact description of a disease called "the Guinea Worm," known not only in those regions, but on the coasts of Guinea and Hindoostan.†

Herodotus relates, that in India "ants larger than foxes, when digging their holes in the sand, discover the gold which is mixed with it."‡ Another edition of this marvellous narration, evidently compiled from the accounts of the ancients, describes animals existing in an island near the Maldives, which are larger than tigers, but in form

* Plutarch. *Symposiac.* lib. VIII.

† The 'Guinea Worm' disease prevails in the marshy districts of Africa; and among negroes in the West Indies, where it is endemic in the months of November, December, and January; and in the same months at Bombay. The worm is the Filaria *dracunculus:* it is white, of great length, varying from eight inches to three feet; and the thickness of a violin cord, throughout its entire length except at the tail, which is thin and curved. It is supposed to have an external origin, and its eggs to be taken into the habit with water used as drink; but this opinion requires confirmation. It appears under the skin, and when it is about to issue, a small pustule rises, on the bursting of which the head of the worm is obtruded. It is removed by winding it round a piece of stick, desisting when it cannot be freely drawn forth, and continuing the winding until the whole is obtained.—ED.

‡ Herod. lib. III. cap. CII.

resembling ants.* In the sandy mountains containing gold dust near *Grangué*, some English travellers have seen animals whose forms and habits in some measure explain these accounts of Eastern and Greek historians.†

Pliny and Virgil describe the *Seres* as gathering silk from the tree which bears it, and which the poet likens to a cotton plant.‡ This too literal translation of a correct expression, makes it appear as if the silk were the produce of the tree, upon which insects deposit it, and from which men gather it. Ktesias speaks of " a " fountain in India, which was filled every year with " liquid gold. Every year the gold was dragged up " in a hundred earthern amphora, at the bottom of " which, when broken, the gold was found hardened, of " the value of a talent."‖ Larcher turns this account into ridicule, and particularly insists on the disproportion of the produce to the capacity of the fountain, which could not contain less than a cubic fathom of this liquid.§

Ktesias's account is correct, but not his expressions; instead of saying liquid gold, he should have said gold suspended in water. In other places, he is careful to explain that it was the water, and not gold which they drew up. In the marshes of Libya, (to which Achilles Tatius compares the above mentioned spot), gold was

* Les Mille et un Jours, Jour CV. CVI. *Aelian.*

† *Asiatic Researches*, vol. XII. *Nouvelles Annales des Voyages*, tome I. p. 311, 312.

‡ Pliny. *Hist. Nat.* lib. VI. cap. XVII. Virgil. Georg. lib. II. v. 120, 121, but Servius, in his Commentaries, assigns silk to its true origin.

‖ *Ktesias in Ind. apud. Photium.*

§ Larcher, *Traduction d'Hérodote*, 2e édition, t. VI. p. 243.

obtained by plunging poles plastered with pitch into the mud* of a fountain which was the basin of a gold washing; such as exists wherever rivers or soils containing auriferous earth are to be found, and of which some very important ones exist in Brazil.

For extracting the gold the method used in the present day was that employed: namely, evaporating the water until the gold was precipitated to the bottom, and upon the sides of the vessels containing it, which were then broken, and the fragments no doubt washed or scraped. Ktesias adds, that iron was found at the bottom of the fountain, and this statement confirms the truth of his account. To disengage the gold from the oxide of iron, is one of the greatest of the labours of the gold washers of Brazil.† The gold of Bambouk, which is also collected by washing, is so mingled with iron and emery powder, as to require great care in separating the base from the precious metal.‡

From time immemorial, the Hindoos have had a custom of placing a perfumed pastille in the mouth before addressing any person of superior rank. This substance were it described in any other than the Hindostanee, would be looked upon as a *talisman*, the possession of which was requisite to obtain a favourable reception to its possessor from the powerful ones of the earth.

* Achill. *Tat. de Clitoph. et Leucipp.* amor. lib. II.

† Mawe, *Travels in the interior of Brazil*, v. I. pp. 135 and 330.

‡ Mollien, *Voyage en Afrique*, tome I. pp. 334 et 335.

The Halliatoris* we are told was used in Persia to enliven a feast, or to assist in procuring places nearest the King; these are figurative expressions, the meaning of which it is easy to decipher. They are merely intended to show that certain favour and preeminence was shown to him who, among a people addicted to wine and the pleasures of the table, was at the same time the gayest and the most capable of bearing much wine. The Persians, and even the Greeks, exulted in being able to drink much without suffering intoxication, and sought out all kinds of specifics to counteract the effects of wine. For this reason they eat the seeds of the cabbage,† and boiled cabbage. Bitter almonds were used for the same purpose, and it appears with some success.‡ All this favours the conjecture that the *halliatoris* was endowed with the same property to such an extent, that drunken-

* Plin. *Hist. Nat.* lib. XXIV. cap. XVII. different editions of Pliny's Work.

† *Athenæ. Deipnos.* lib. I. cap. XXX.

‡ The Bitter Almond contains the constituents of Prussic Acid and a peculiar volatile oil, resembling the peach-blossom in its odour; both are developed when the almond is bruised and brought into contact with water. When the bitter almond, therefore, is masticated and receives moisture in the mouth and stomach, the prussic acid then formed operates as a powerful sedative upon the nervous system, and renders the body less susceptible of the influence of excitants, consequently of wine. It forms, as it were, the balance in the opposite scale, and preserves the equilibrium, between the sinking which would result from its use were no wine taken, and the intoxication which would follow an excess of wine, were the bitter almonds not eaten. Plutarch informs us that the sons of the physician of the Emperor Tiberius, knew this fact, and although most intrepid topers, yet, they kept themselves sober by eating bitter almonds.—ED.

ness had neither power to confuse the intellect, nor to pass beyond the bounds of gaiety.

And what, it may be asked, was the plant Latacé which the Kings of Persia gave to their envoys, and in virtue of which their expenses were defrayed wherever they went?* It was a peculiar sign, a rod of a particular form, or a flower embroidered upon their garments, or on their banners, announcing the titles and prerogatives which were borne by them.

Instead of the water, which the fugitive Sisera exhausted with fatigue and thirst had supplicated, Jael, with the intention of making him sleep,† gave him milk. What reason have we, who call an emulsion of almonds' milk, for doubting that in the original Hebrew, this word signified a somniferous drink, deriving its name from its colour and taste.‡

* Plutarch. *Symposiac,* lib. I. quest 6. Athenæ. Deipnos, lib. II. cap. XII.

† Plin. *Hist. Nat.* lib. XXVI. cap. IV.

‡ *Book of Judges,* cap. IV. vers. 17, 24. — It is surprising that our author should have attempted an explanation of an event which requires none. The following is the passage in the Book of Judges. "Howbeit Sisera fled away on his feet to the tent of Jael, the wife of Heber the Kènite; for there was peace between Jabin the King of Hazor and Heber the Kènite. And Jael went out to meet Sisera, and said unto him, turn in my Lord, turn in to me, fear not. And when he had turned in unto her, into the tent, she covered him with a mantle. And he said unto her, give me, I pray thee, a little water to drink, for I am thirsty. And she opened a bottle of milk, and gave him drink, and covered him. Then Jael, Heber's wife, took a nail, a nail of the tent, and took a hammer in her hand, and went softly unto him, and smote the nail into his temples, and fastened him into the ground (for he was fast asleep and weary) so

When Samaria was besieged, the town was a prey to all the horrors of famine; hunger was so extreme, that five pieces of silver was the price given for a small measure (fourth part of a kal) of dove's dung.* This seems at first sight ridiculous. But Bochart maintains very plausibly that this name was then, and is still, given by the Arabs to a species of vetch, (*pois chiches.*)

The Chinese historians affirm that wine in which the feathers of the Tchin are macerated, becomes a deadly poison; and history contains numerous instances of poisonings achieved in this manner.† We are not acquainted with any bird endowed with so fatal a property; but the fact may be explained by supposing that the poison was, in order to preserve it, inserted into the quill of a feather; and thus we are told Demosthenes caused his own death by sucking a pen.

Midas, King of Phrygia,‡ Tanyoxartes, brother of Cambyses,‖ and Psammenites, King of Egypt,§ died, it is said, in consequence of drinking bull's blood, and the death of Themistocles has been attributed to the same cause. Near the ancient town of Argos, in Achaia, was

he died." Every incident is natural; his sleep arose from fatigue as stated, and not from a narcotic.—Ed.

* *Book of Judges*, iv. cap. iv. vers. 25.

† I. Klaproth. *Lettre à M. Humboldt sur l'invention de la Boussole*, p. 89. The Tchin, according to the Chinese writers, resembled a vulture, and fed upon poisonous serpents. In reference to its name, a word has been formed which signifies to poison. (I owe this note to M. Stanislas Jullien, a member of the Institut of France.)

‡ Strabo, lib. i.

‖ *Ktesias in Persic. apud Photium.*

§ *Herodotus*, lib. iii. cap. xiii.

a temple of *Terra*, the moral purity of its priestesses, was tried by making them drink the blood of the bull.*

Experience has proved that the blood of bulls does not contain any deleterious property. But, in the East and in some of the Grecian temples, they possessed the secret of composing a beverage which could procure a speedy and easy death, and which, from its dark red colour, had received the name of *Bull's blood*, a name, unfortunately, expressed in the literal sense by the Greek historians. Such is my conjecture, and, I trust, a plausible one. We shall also by and by, see how the name, blood of Nessus, which was given to a pretended love philter, was taken in a literal sense by some mythologists who might have been set right by the very accounts of it which they copied.† The blood of the hydra of Lerna, in which Hercules' arrows being dipped, rendered the wounds they inflicted mortal, seems to us to signify nothing more than that it was one of those poisons which archers in every age have been accustomed to make use of, in order to render the wounds of their arrows more deadly.

And again we have a modern instance of the same equivocation. Near Basle, is cultivated a wine which has received the name of *blood of the Swiss;* not only from its deep colour, but from the circumstance of its being grown on a field of battle, the scene of Helvetian valour. Who knows but that in a future day, some

* Pausanias, *Achaïe*, cap. xxv.—Whatever was the nature of the poison termed *Bull's blood*, Dioscorides (lib. v. 130) informs us that the antidote was a mixture of nitre and benzoin.—Ed.

† See to chap. xxv.

literal translator may convert those patriots, who every year indulge in ample libations of the blood of the Swiss, at their civic feasts, into Anthropophagi.*

To confirm this remark we have only to seek in history for proofs of the means by which a simple fact has been transformed into a prodigy, owing to the expressions employed to describe it being less correct than forcible.

Assailed by the Crusaders, and scared by the looks which these warriors, completely clothed in metal, darted upon them through their visors, the trembling Greeks described them as " men of brass whose eyes flashed fire."†

The Russians in Kamschatka are still called *brichtains*, men of fire, an appellation which the inhabitants gave them, from their imagining when they saw them use fire-arms for the first time, that the fire issued from their mouths.‡

Near the burning mountains, north of the Missouri, and the river of St. Peter, dwell a people who appear to have emigrated from Mexico and the adjacent countries, at the time of the Spanish invasion. According to their traditions, they had hidden themselves in the inland country, at a time when the sea coast was continually infested by enormous monsters, vomiting lightning and thunder, and from whose bodies came men who, with unknown instruments, and by magical power, killed the defenceless Indians at immense distances.‖ They observed

* W. Coxe, *Letters upon Switzerland*, letter XLIII.

† Nicetas, *Annal. Man. Comn.* lib. I. cap. IV.

‡ Kracheninnikof, *Hist. of Kamschatka*, part. I. chap. I.

‖ Carver, *Travels in North America*, etc., pages 80—81.

that these monsters could not reach the land, and in order to escape from their blows, they took refuge in distant mountains. We see here that the vanquished at first doubted, whether these advantages were not more to be attributed to better arms, than to the power of magic. It is probable that deceived by appearances they endowed with life the ships which seemed to move of themselves, and transformed them into monsters; and this prodigy has either from that day been firmly rooted in their minds; or on the contrary, it was merely a bold metaphor invented to depict and to perpetuate so novel an event.

But this instance leads us to the consideration of one of the most fertile causes of the marvellous; namely, the use of a figurative style.

Fourthly. That style which, contrary to the intention of the narrator, clothes facts in a supernatural colouring, is not confined to the art or rather the habit, common to lively imaginations, of employing poetical expressions and bold images in the recital of those deep feelings, or those facts which they desire to fix upon the memory. Man is everywhere inclined to borrow from the figurative style the name which he gives to any new object, with the aspect of which he has been struck. For instance, a parasol was imported to the centre of Africa; and the inhabitants calld it the " cloud,"* a picturesque designation, which, some day or other, may become the foundation of a marvellous story. Our passions, in short, which speak more frequently than our reason,

* *Travels in Africa,* by Denham, Clapperton and Oudeney, vol. III.

have introduced expressions eminently figurative into every language, which no longer appear to be such, so completely has their literal sense been lost in the habit of differently applying them. *To be boiling with anger—to bite the ground—swift as the wind — to cast one's eyes*, are expressions which if a foreigner, knowing the words but not the idiom of the language, were to translate literally, would appear nonsense; and what fables might result. Such, indeed, has been already done: for instance, we are seriously told that Democrites, who devoted his life to observing nature, had put out his eyes, that he might meditate without distraction of mind.* It has been told also, that stags are enemies to snakes, and can make them fly ;† an assertion depending on the fact, that the smell of burnt hartshorn is disagreeable to serpents, and causes them to turn away.

The bites of the Boa are not venomous; but the serpent squeezes its victim to death by twining round it; and from this fact, was derived the fable of the dragon, whose tail was said to be armed with an envenomed barb. When pressed by hunger, such is the swiftness of the Boa, that its prey rarely escapes it: poets have compared its course to a flight, and vulgar superstition immediately bestowed real wings upon the

* According to Tertullian (*Apologet*, cap. XLVI), he blinded himself that he might be placed beyond the influence of love, as he could not see any woman without loving her. This tradition is also founded on the literal interpretation of a figurative expression.

† Aelian, *de Nat. Animal*, lib. II. cap. IX.

dragon. The names of basilisk and asp were employed to designate reptiles so agile, that it is difficult to escape their attack at the moment they are perceived; the asp and basilisk were, therefore, supposed to cause death by their breath, or only by their look. Of all these figurative expressions, the foundation of so many physical errors, none was bolder than the expression applied by the Mexicans to describe the rapidity of the rattlesnake, they called it the *wind.**

A church threatened to give way, St. Germain at Auxerre,† and St. Francis of Assisi,‡ at Rome, sustained the edifice, which from that moment remained immoveable on its foundations. Credulity believes this to have been a miracle; but the real meaning of the allegory is, that the Bishop, and the founder of the

* Lacépède, *Hist. Nat. des Serpents,* art. Boiquira.

† Robineau Desvoidy's *Description des Cryptes de l'Abbaye St. Germain à Auxerre,* (an unpublished work) *liber conformitatum, S. Francisci,* etc.—St. Germain was born at Auxerre, of noble parents, and died at Ravenna. He was originally a lawyer. He married, and was created a Duke, by the Emperor Honorius; but through the means of St. Amater, he took the tonsure, lived with his wife merely as a sister; and at the death of Amater was chosen Bishop of Auxerre. He is reported to have given sight to the blind, raised the dead, and performed numerous miracles! —Ed.

‡ St. Francis of Assisi, the founder of the order of Franciscans, was born in 1182. He was baptized by the name of John, but was afterwards called Francis, from the facility with which he acquired the French language. His supernatural visions and miracles would fill a volume. He died in 1226, and two years afterwards he was canonized at Assisi, by Gregory IX.[a]—Ed.

[a] Butler's *Lives of the Fathers, Martyrs, and Saints,* vol. I. p. 137. Ibid, vol. II. p. 569.

order were, by the influence of their doctrine and works, the support of a tottering Church.

In prayer and in religious contemplation, the fervent man is, as it were, ravished into ecstasy; he seems no longer to belong to earth, but is raised to Heaven. The enthusiastic disciples of Iamblicus affirmed, in spite of their master's assertions to the contrary, that when he prayed, he was raised to the height of ten cubits from the ground:* and dupes to the same metaphor, although Christians, have had the simplicity to attribute a similar miracle to St. Clare,† and St. Francis of Assisi.

This transformation of an allegory into a physical fact, may be traced to a remote period, if we can rely on a learned individual of the fifteenth century; but one, who like most of his cotemporaries, too seldom indicates the source from which he derived his information. Cœlius Rhodiginus relates, that according to the Chaldeans,

* *Eunap. in Iamblich.*

† St. Clare, the daughter of Paverino Sciffo, a noble knight, was born at Assisi in Italy, in 1193. At a very early age, she displayed a strong bias for devout observances; and at the age of eighteen received the penitential habit from Saint Francis, who placed her in the nunnery of Saint Paul, in Assisi, whence her relations endeavoured in vain to remove her. She afterwards, by the aid of Saint Francis, founded the order which bears her name. Her humility, austerity, prayers, and her contempt for the persecutions which she suffered, were remarkable even in the period in which she lived. She died in 1253. The order was brought into England in 1293, by Blanche, Queen of Navarre, and had a house without Aldgate: the nuns were called *Minoresses*, as the Franciscans were called *Minors*, a name imposed by their founder, on account of their humility. From them the Minories received its name.—Ed.

the luminous rays emanating from the soul do sometimes divinely penetrate the body, which is then of itself raised above the earth. This, he says, occurred to Zoroaster; and he attempts to explain, in the same manner, the translation of Elijah into Heaven, and the trance of St. Paul.*

In the kingdom of Fez is a little hill, which requires to be crossed either by dancing, or with a great deal of action, in order to avoid an endemic fever prevalent there.† The relation of this popular custom, which has existed and been obeyed for more than a hundred years, has been treated with scorn by some enlightened men. What, indeed, at first sight, could have a more ridiculous effect? Nevertheless, what is the advice given to all travellers in the Campagna of Rome, and in the vicinity of the Eternal City? They are told to struggle against the drowsiness that will insensibly steal over them, by forced and violent movements; as yielding to it only for a moment would expose them to an attack of fever, always dangerous, often fatal.

In Hai-nan, and in almost the whole province of Canton, the inhabitants rear a species of partridge, which they call *tchu-ki*. They say, that the instant one of these birds is introduced into a house, the white ants quit it: doubtless, because this bird destroys a quantity of them for food. The Chinese, however, poetically

* *Arbitrabantur chaldæorum scientissimi ab rationali anima id... effici quandoque ut radiorum splendore, ab ipsa manantium, illustratum diviniore modo corpus etiam surrigat in sublime, &c. &c.* (Cœlius Rhodig. *Lection. Antiq.* lib. II. cap. VI.)

† Boulet, *Description de l'Empire des Cherifs*, p. 112.

assert that the *cry of the tchu-ki, changes the white ants into dust*,* it would be converting a ridiculous saying into a prodigy, if we literally believed this emphatic expression.

We are told, also, that every spring time, in those deserts which separate China from Tartary, yellow rats are transformed into yellow quails; and that in Ireland and in Hindostan, the leaves and fruit of a tree, planted near the water, become first shell fish, and then aquatic bidrs.†

* Jules Klaproth, *Description de l'Ile de Hai-nan* (*Nouvelles Annales des Voyages*), deuxième série, tome VI. p. 156.

† The aquatic bird, noticed in the above passage, is the *Barnacle goose*, and it is scarcely possible to adduce a more striking instance of the credulity of even those regarded, in their period, as the learned and philosophic, than their belief that the barnacle, Pentalasmis *antifera*, (Leach), is the origin of that bird. The barnacle is a marine, testaceous animal, covered with a nearly triangular shell, composed of five distinct pieces. The animal itself is compressed, enveloped in a thin mantle, and furnished with curled tentacula. It attaches itself by a long fleshy peduncle to rocks, to the bottoms of ships, and even to the branches of trees that grow upon the margin of the sea and dip into the waters Many of the old writers described these animals, when they appeared on trees, as the fruit in which, say they, is to be found the lineaments of a fowl, and from which, when ripe and dropped into the sea, the fowl comes forth and takes wing. Even so late as 1636, Gerard, the celebrated author of the *Herbal*, a man of learning, observation, and in many points of acknowledged accuracy, impresses upon his readers the truth of this absurd fable. He thus describes the coming forth of the bird, "next came the legs of the bird hanging out; and as it (the bird) groweth greater it openeth the shell by degrees, till at length it is all come forth and hangeth only by the bill: in short space after it commeth to full maturitie, and falleth into the sea, where it gathereth feathers, and groweth to a fowle bigger than a mallard, and lesser

In both narrations, if we substitute the idea of the metamorphose, for that of a successive appearance, the absurdity vanishes and the truth appears.*

The amethyst is a precious stone, which is coloured and sparkles like wine. Instead of this description, so coldly exact, figurative language has substituted an expressive image in its name, Αμεθυστος, amethystos, *not intoxicating*—or *wine that does not inebriate;* and it is from this name having been literally translated in Greece, that the amethyst was supposed to possess the miraculous power of preserving from drunkenness the man who was adorned with it.

Is this, we may ask, the only poetical flight, the only metaphor which has been transformed into a history? Bacchus,† with the thyrsus which he carried

than a goose." He adds, "if any doubt, may it please them to repaire to me, and I shall satisfie them by the testimonie of good witnesses." The absurdity of this delusion requires no comment. —Ed.

* *Eloge de Moukdem*, p. 32 and 164.

† Bacchus was the Roman name for the Grecian God Dionysius, whom the Greeks, both in Asia and Europe, universally worshipped. In the whole history of polytheism, we find no rites more extravagant, sensual, and savage, than those of the Dionysia or Bacchic festivals. The men present at them took the disguise of satyrs, and the women acted the parts of bacchæ, nymphs, and other inferior deities, and committed the greatest excesses. At an early period these festivals were often solemnized with human sacrifices; and pieces of the raw flesh, cut from the bodies of the victims, were distributed among the bacchæ. (From the Attic Dionysia, nevertheless, both tragedy and comedy derived their origin). In Italy, the Bacchanalia were scenes of the coarsest excesses, and the most unnatural vices. They were latterly carried on at night, and often stained with poisonings,

in his hand, having pointed out a spring of water to the troop who followed his steps,* "the God," it was reported, "caused a spring to rise by striking the ground with his thyrsus;" and, with a slight alteration of the fable, we read also, that Atalanta struck her lance against a rock, from which instantly gushed a spring of freshwater.† It is in this manner that poetry explains and describes, in some brilliant allegory, the prodigy that credulity has laid hold of, but which in reality is only the consequence of its figurative style.

BOSTON MED... DEC 21 1907 LIBRARY

Similar errors may be laid to the charge of history, and even of natural history. If Rhésus, at the head of a considerable army, had been able to unite his forces with the defenders of Troy, the Greeks, exhausted by a ten years' struggle, would have despaired of victory. A declaration of what was so easily foreseen, was poetically expressed, and became one of the *fatalities* of this famous siege. The Fates, it was said, would not permit Troy to be taken, if the horses of Rhésus were once permitted to taste the grass which grew on the borders of the Xanthus, or to quench their thirst in its waters.

assassinations, and every crime. Although conducted in Rome, and although the number of the initiated was said to be seven thousand, yet the existence of these meetings appears to have been unknown to the Senate, until A.D. 186, when they were put down, after a report on them had been made to that august assembly, by the Consuls Spurius Postumus Albinus and Quintus Marius Philippus. The delinquents were arrested and tried; many of the men were imprisoned, others were put to death; and the women were delivered to their parents and husbands to be privately punished. (Livy, lib. XXXIX. 14).—ED.

* *Pausanias*, lib. IV. cap. XXXVI.

† Pausanias, *Laconic.* cap. XXIV.

On the celebration of the day of some saint revered in Ireland,* the fish, if we could believe a writer of the twelfth century, raise themselves from the bosom of the sea, pass in procession before his altar, and disappear after having rendered him homage.† The saint's day most probably fell in that period of the spring, when, on the coast where his church was built, might be seen periodical shoals of herrings, mackerel, or tunnies.

Nonnosus who was sent by the Emperor Justinian, on a mission to the Saracens of Phœnicia and Mount Taurus, heard that while the religious assemblies of these people lasted, they lived in peace among themselves, and with strangers, "that even beasts of prey respected their universal peace, and observed it towards mankind and their fellows."‡

Photius regards the traveller on this occasion as a narrator of fables. Nonnosus, however, only repeated what he had heard, but mistook for a fact, a poetic expression or mode of speech, frequently used in the

* Saint Patrick, the titular Saint of Ireland. He was a Scotch-Roman, and was born in 372, in the Roman village Benaven Taberniæ, now the town of Killpatrick, at the mouth of the Clyde, between Glasgow and Dumbarton. His family name was Caliphurnia. At an early age, he was carried captive into Ireland, where he was forced to keep cattle, and suffered many hardships, during which time he is said to have been admonished in a dream, to undertake his mission. Many miracles, equally absurd as the prodigy noticed in the text, are related as having been performed by St. Patrick.—Ed.

† Gervais de Tilbery, *Otia imper.* cap. viii. *Hist. Litt. de la France*, tome xvii. p. 87.

‡ *Photius Biblioth.* cod. iii.

East, and also to be found in one of the most eloquent of the Hebrew writers;* a mode of speech employed by the Greeks and Romans also in their pictures of the golden age; and which Virgil less happily made use of in his admirable description of an epizootic, (a disease amongst cattle) which desolated the north of Africa and the south of Europe.†

It is a well known fact, that a sudden and striking alarm often arrests speech; such, for instance, as a person experiences who finds himself unexpectedly before a wild beast. But it has been said, that a man loses his power of utterance when he is seen by a wolf, although the animal is unobserved by him. This figurative expression has been even taken literally, and it has furnished a proverb, which is not only found in Theocritus and Virgil,‡ but in Solinus and Pliny, who have also adopted it. The former very seriously speaks of "a particular species of wolf in Italy which affects any man it sees with dumbness; its victim in endeavouring to cry, finds that his voice is lost."‖

* *Isaiah*, cap. xi, verse 6, 7, 8.

† Virgil, *Georg.* lib. iii. See also *Eclog.* viii. v. 27.

‡ Theocrit. *Eidyll*, xiv. v. 22. Virgil *Eclog.* ix. v. 54.

‖ *Solinus*, cap. viii. Plin. *Hist. Nat.* lib. viii. cap. xxii. Solinus was a Roman author, who borrowed freely from Pliny. The effect which he describes has been attributed to a supernatural cause, by modern superstition. A woman, in the night, saw four thieves enter her apartment through the window: she attempted to cry, but could not. They took her keys, opened her coffers, possessed themselves of her money, and escaped by the same window. The woman then recovered her voice, and

Varro, Columella, Pliny and Solinus,* relate that the mares of Lusitania conceive by the breath of the wind: but Pompeius Trogus† understood this expression as merely metaphorical of the rapid multiplication of these animals, and their swiftness in the course.

Fifthly. What emblems are to the sight, a figurative style is to the mind. Their influence has produced many extraordinary narrations: and in every age of antiquity they were employed to illustrate any thing of importance, in dogmas, in recollections, in morals, and in history. Their meaning perfectly understood in the commencement, often became gradually less so; and after some length of time was completely lost to the ignorant and unreflecting. The emblem, nevertheless, remained, and when seen by the people at once commanded their belief and veneration: henceforth the representation, however absurd and monstrous, naturally took its place in the common belief as the real object it was originally intended to commemorate. From a symbol representing religion and laws, emanating from the supreme intelligence, sprung the fable that a falcon

called for assistance. The impossibility of her calling out, when the thieves were in her chamber, was said to be the effect of sorcery. Frommann, *Tractatus de Fascinatione*, p. 558—559.

* Varro. *De re rustica*, lib. II. *Columell.* lib. VI. cap. XXVII. Plin. *Hist. Nat.* lib. VIII. cap. XLII. *Solinus*, cap. XXVI.

† *Justin*, lib. XLIV. cap. III. Pompeius Trogus was a Roman historian in the time of Augustus. His great work, "Historiæ Phillippiæ et totius mundi origines," is known only in the abridgement by Justinus; but Pliny, *Nat. Hist.* lib. VII. 3. mentions a work by Trogus on animals.—ED.

had borne to the priests of Thebes, a book containing religious rites and laws.* Certain islands of the Nile were, according to Diodorus,† defended by serpents with dogs' heads and other monsters. These monsters, and serpents were probably emblems intended to point out, that these islands were consecrated to the Gods, and were consequently inaccessible to profane mortals.

How many fables and prodigies in the records of Egypt, how many in the records of India, and of Greece have an analogous origin !

It has been related, and the story is still repeated without reflecting that the thing is absurd, that such was the strength of Milo of Croton, that, when he stood on a narrow quoit, no one could displace or tear from him a pomegranate, which he held in his hand, but which, nevertheless, he did not press violently enough to crush; nor could they separate from one another the fingers of his right hand, which he held extended. Milo, says a man learned in religious rites and emblems, was, in his own country, high priest of Juno : his statue placed in Olympia represented him, according to the sacred rite, standing upon a little round buckler, and holding a pomegranate, the fruit of the tree dedicated to the Goddess. The fingers of his right hand were extended and joined together, in the manner the ancient sculptors always represented them.‡ Thus was an imperfection of art made the foundation of a miraculous story.

* *Diod. sic.* lib. I. par. 2, § 32.

† *Diod. sic.* lib. par. I. § 19.

‡ *Apollonius de Tyanus*, vit. *Apollon*, lib. IV. cap. IX.

It is not necessary to dive deep into antiquity for similar facts. In the middle ages, figured almanacs were used as the only means of instructing those who could not read. To explain to them that a martyred saint had perished by decapitation, they painted him as standing and holding between his hands, the head which had been separated from his body.* This emblem was doubtless the more easily adopted, as it had for some length of time fixed the attention, and consequently the reverence, of the multitude in the hieroglyphic calendar of a more ancient religion.†

From the calendars the emblems naturally passed to the statues and various representations of the martyrs. I have seen Saint Clara in a church in Normandy; Saint Mitrius at Arles;‡ and in Switzerland all the soldiers of the Thebean legion represented with their heads in their hands.

Saint Valery also is painted with his head in his hands, upon the doors and other parts of the Cathedral at Limoges.‖ Saint Felix, St. Regula, St. Exuperantius,§ are presented in the same attitude upon the great seal of the Canton of Zurich. This, no doubt, was the

* See *Menagiana,* tome IV. p. 103. Some of the illustrated calendars are probably still existing and may be found in the cabinets of the antiquary.

† *Sphæra Persica,* Capricornus Decanus, III. "*Dimidium figuræ sine capite quia caput ejus in manu ejus est.*"

‡ St. Mitrius is the patron saint of Aix in Provence, where he suffered martyrdom under Dioclesian.—Ed.

‖ C. N. Allou, *Description of the Monuments of the department of Upper Vienne,* page 143.

§ St. Exuperantius is not found upon any seals before 1240.

origin of the pious fable they relate of these martyrs, of Saint Denis,* and many others, such as Saint Maurice of Agen,† Saint Principius at Souvigny in Bourbonnais, Saint Nicasius, the first Bishop of Rouen, St. Lucian, Apostle of Beauvais, St. Lucain, Bishop of Paris,‡ St. Balsemus at Arcy-sur-Aube, and St. Savinian at Troyes.‖ The year 275, furnished no less than three more headless saints to the diocese of Troyes in Champagne.§ The origin of the above legend may be traced first of all to some cotemporary hagiographer having employed a strong figure of speech, still used among us; who, in attempting to describe all the obstacles and dangers which attended the faithful eager to render the last services to the martyrs, probably called the forcible carrying away, and burying of the sacred remains, a real miracle. The attitude in which the saints were offered to the public veneration explained the nature of this miracle, and gave some kind of authority for saying, that

* "Se cadaver mox erexit,
Truncus truncum caput vexit,
Quo ferentem hoc direxit
Angelorum legio."

Sung in the offices of St. Denis, until the year 1789.

† *Mémoires de la Société des Antiquaires de France,* tome III. p. 268—269.

‡ J. A. Dulaure, *Histoire physique, civile, et morale de Paris,* tome I. page 142.

‖ *Promptuarium sacrum antiquitatum Trecassinæ diœcesis,* 335. v. et 390. v.

§ L. P. Deguerrois, *La Sainteté Chrétienne,* fol. 33, 34, 38, 39, 48. In a life of St. Par, one of these three martyrs, printed at Nogent-sur-Seine in 1821, this marvellous narration is repeated.

although beheaded, the martyrs had walked from the place of their decapitation to that of their sepulture.

Sixthly. To what lengths will not a credulous curiosity extend when from various explanations it selects the most marvellous? The veil of an allegory or a fable, however transparent it may be, arrests attention.

The crowing of the cock makes the lion fly—is an old remark, believed in its literal sense by the ignorant; the better informed know that at the dawn of day, which is announced by the crowing of the cock, carnivorous animals voluntarily return to their dens.

Moral proverbs clothed in equally transparent garbs have, nevertheless, passed as axioms of natural science. Love vanquishes all things, even the most formidable: the ferocity of the lion is appeased, we are told, at the sight of a woman unveiled.

In spite of the facility of proving the contrary, Aelian relates that, from the vernal to the autumnal equinox, the ram sleeps lying upon his right side, and upon his left from the autumnal equinox to the vernal.* In natural history this is a ridiculous tale, but it is an evident truth in the allegorical language of ancient astronomy.

It is related that in the army which Xerxes led against the Greeks, a man gave birth to a hare; a prodigy which presaged the issue of that gigantic enterprise:† it was nothing more than the fable of the moun-

* Aelian, *de Nat. Anim.* lib. x. cap. xviii.

† *Valer, Maxim,* lib. i. cap. vi. § 10.

tain bringing forth a mouse improved, perhaps, by lessening the distance between the physical relations, and by a sarcastic allusion, through the hare, to an army of fugitives.

Was it intended that we should understand and believe as a miracle, the story, that *innumerable rats, by gnawing the bow-strings and the straps of the bucklers of Sennacherib's soldiers*, effected the deliverance of the King of Egypt, besieged by that leader ?* Assuredly not: it was an expression used to designate an army incapable, from want of discipline and from negligence, of resisting the sudden attack of the Ethiopians, who arrived to the assistance of the King of Egypt, and which consequently fell almost entirely beneath their conquering sword. The priests, to whose caste the Egyptian King belonged, willingly favoured a literal interpretation of the allegory and the belief in it as a miracle, which they ascribed to their tutelar divinity, and which saved the national pride from the humiliation of acknowledging that the victory was due to the delivering allies. The tradition of this miraculous deliverance extended farther than the fable which had given it birth; Bérosus, quoted by Josephus,† says, that the Assyrian army was the victim of a scourge, a plague sent by Heaven, which at once struck down one hundred and eighty-five thousand men. Thus the Chaldean vanity covered with an unavoidable misfortune, the opprobrium of a merited defeat. In the same manner, fictions which are purely moral, and unconnected

* *Herodot.* lib. II. cap. CXLI.

† Fl. Josephus, *Ant. jud.* lib. I. cap. II.

with any fact, become historical traditions. I might quote the touching parable of the Samaritan assisting the wounded man, when neglected by the priest and the levite. In the present day, in Palestine, it is looked upon not as a parable, but as an historical fact, and the scene of it was shown by the monks to the traveller Hasselquist.* There is, after all, in this nothing extraordinary nor repugnant to reason; and the heart, being interested, is tempted to believe in its reality. Less mindful of probabilities, a sage wishing to perpetuate in a fable the maxim, "that it is not enough to sacrifice for the good of one's country, riches, luxury, and pleasure, but more is necessary; and although held back by the dearest affections, life itself should be devoted to it;" he related that a frightful gulf, which nothing could fill up, suddenly opened in the middle of a city; the Gods when consulted, declared that it would only close on the most precious possessions of mankind being thrown into it. Gold, silver, and precious stones were instantly but vainly precipitated into it. At length a generous man, tearing himself from a father and a wife, voluntarily plunged into it, and the abyss closed for ever over him.

In spite of the evident improbability of the result, this fable, invented in Phrygia, or borrowed from a still more ancient civilization, has passed into history. The name of the hero was Anchurus, son of Midas,†

* Hasselquist, *Voyage dans le Levant,* tome 1, p. 184.

† *Parallels between Grecian and Roman Histories,* § x. This work, falsely attributed to Plutarch, merits in general but little confidence; but its testimony, it seems to me, may be admitted

one of the Kings of the heroic times. But such is the charm attached to the marvellous, that Rome, some centuries afterwards, appropriated to herself this fable which, in place of a general precept, displays only an individual example. It was not because the Sabine chief, Metius Curtius* who, when almost overcome in the midst of Rome, left his name to the marsh famed as the scene of his vigorous defence against the efforts of Romulus; it was not because a Consul,† directed by the Senate, enclosed with a wall this marsh upon which the thunderbolt fell; but it was to perpetuate to the veneration of the people a patrician, on whom the name of Curtius was bestowed, as having nobly in the same place thrown himself completely armed into a gulf, which had miraculously opened, and not less miraculously closed, that Rome borrowed from Phrygia this fable of Anchurus, and introduced it into her own history.‡

The desire of increasing the reputation of a country, has favoured such plagarisms. It is one object of our

when its object is to take from history those facts evidently fabulous, regarding which the ancient annalists of Rome do not agree. Callisthenes, quoted by Stober (Sermo XLVIII), also relates the devotion of the son of Midas, whom he calls Ægystheos.

* Such is the real origin of the name of the Lacus Curtius, according to the historian *L. Calpurnius Piso*, quoted by Varro (Varro *de Lingua Latina*), lib. IV. cap. XXXII. See also *Titus Liv.* lib. I. cap. XII. and XIII.

† This was also the opinion of C. Ælius, and of Q. Lutatius (Varro loc. cit.)

‡ Varro (loco citato) also relates this tradition; but with the air of a man who hardly believes it, since he terms the hero who precipitated himself into the gulf a certain Curtius, "*quemdam Curtium.*"

task, to show how often, imposture assisting the vanity of a nation, or a family, in effacing a stain, or adding an ornament, has given birth to the history of prodigies. From an immense number of instances, we shall select but one. It was constantly repeated that, from the amours of the God of war, sprung the founders of a city which was destined to be raised to the highest pitch of power, by the favour of that God; and this story was credited, notwithstanding the tradition preserved by two grave historians, that the ferocious Aurelius violated his niece Rhey Sylvia, who became the mother of Romulus and Remus.*

* *C. Licinius Macer et M. Octavius,* quoted by Marcus Aurelius Victor. *De origine gentis romanæ,* cap. XIX.

## CHAPTER IV.

Real but rare Phenomena successfully held up as Prodigies proceeding from the intervention of a Divine Power; and believed because men were ignorant that a Phenomenon could be local and periodical; because they had forgotten some natural fact, which would at once have removed all idea of the marvellous; and finally, because it was often dangerous to disabuse a deceived multitude.—As the ancient authors have adhered to truth in this respect; they may be, also, depended upon in what they relate of magical operations.

ALTHOUGH a great number of the wonders mentioned in the writings of the ancients may have derived importance from enthusiasm, ignorance, and credulity only; yet others, on the contrary, such as the fall of aerolites have been recognized as real phenomena; and have not been rejected by enlightened physical science, although it has not always been able to explain them in a satisfactory manner. The natural history of our species details many extraordinary events, the existence of which has been confirmed, but which some observers, whose observations have been circumscribed within their own narrow horizon, have regarded as chimerical.

Some of the most ancient Greek writers, such as Isigonus and Aristeus of Proconesus, have spoken of pigmies two feet and a half in height; of people constituting whole nations whose eyes were in their shoulders; of anthropophagi existing among the northern Scythians; and of a country named Albania, in which were born men, whose hair was white in childhood, and whose sight was exceedingly weak during the day, but became very strong in the night.

Aulus Gelius* treats these narrations as incredible fables; nevertheless, in the descriptions of the two first people, we recognize the Laplanders, and the Samoyedes, although the diminutiveness of the one, and the manner in which the heads of the other, are sunk between their shoulders, has been greatly exaggerated.† Marco Palo asserts, that some tribes of

* A. Gell, *Noct. Attic.* lib. IX. cap. IV. Solinus, also (cap. LV) doubtless copying the authors whose testimony Aulus Gelius rejected, speaks of a nation, the men of which had their eyes in their shoulders.

† Sir W. Raleigh in 1595, and Keymis in 1596, received from the inhabitants of Guiana, the most positive assurances of the existence of a race of men, whose eyes were placed upon their shoulders, and their mouths in their chests (*The Discovery of Guiana*, by Sir W. Raleigh), that is to say, as the French translator has reasonably suggested, that the necks of these men were extremely short and their shoulders very high. P. Lafiteau, (*The Manners and Customs of the American Savages*, &c. vol. I. p. 58 and 62), observes that the belief in the existence of such a race of men is equally entertained in different parts of America, and among the Tartars in the countries bordering on China. Like the Samoyedes in Asia, the Esquimaux and people observed by Weddel at Cape Horn, and in Terra del Fuego, and the adja-

Tartars eat the corpses of men condemned to death.* In the inhabitants of Albania we cannot fail to recognize the Albinos. The name of their supposed country is nothing more than the translation of the appellation bestowed on these singular beings, from the whiteness of their hair, and the fairness of their skin. Ktesias has frequently been accused of falsehood upon the authority of the Greeks, whose opinions and pretensions were somewhat inconsistent with his narrations. The pigmies that this author describes as living in the centre of Asia, and having their bodies covered with long hair, recal to our recollection the Ainos of the Kourila islands, who are four feet high, and covered with very long hair. Turner also saw in Boutan, an individual of an exceed-

cent islands, have been the origin of this error respecting the natives of the North and South of America. (*A Voyage to the South Pole, performed in the Years* 1822—1824. *Geographical Journal*).

The natives of Bukaw, in central Africa, are of so diminutive a stature as to accord completely with the ancient accounts of pigmies. The Bushmen in Southern Africa, also, may be regarded as a race of pigmies, very few male adults rising five feet in height, and the females not so much. The latter are delicately formed, and with remarkably small hands and feet.—Ed.

* *Peregrinatio Marci Pauli,* lib. I. cap. LXIV. *Mémoires de la Société de Géographie,* tome I. p. 361.—The New Zealanders are confirmed and avowed cannibals; so much so, that like the Massagatæ, described by Herodotus, (lib. I. 216) they would eat their own parents. Dr. Martius informs us, that among the ancient Tupis of Brazil, when the chief (Pajé) despaired of a sick man's recovery, he ordered the poor wretch to be killed and eaten. (*Lond. Geol. Journ.* II. 199). The Battas of Sumatra are also undoubted cannibals.—Ed.

ingly small race. The Cynocephali of Ktesias, (Aelian, *de Nat. Anim.* lib. IV. cap. XLVI.) may possibly have been the Oceanic negroes, *Alphourians* or *Haraforas* of Borneo and the Malay Islands; and the monkeys against which, according to the sacred books of the Hindoos, Rama made war in the island of Ceylon.*

In the Argippeans or "bald heads" of Herodotus, we recognize the Mongols or Kalmucs, a nation among whom the monks or Ghelongs have their heads closely shaved. When among this nation, Herodotus was told of a still more northern people, who slept six months of the year. He refused to believe this assertion, which was, after all, nothing more than an allusion to the day and night of the Polar regions.†

The ancients supposed that pigmies existed in Africa. A French traveller found some of them in the Tenda Maia, on the banks of the Rio-Grande. "There," said he, "dwells a race of people remarkable for the diminutiveness of their figures, and the weakness of their limbs.‡ If we descend from generalities to details, we still find that facts of an extraordinary nature, the recollection of which antiquity has preserved with so religious a fidelity, have been too often depreciated. To

* Malte-Brun, *Mémoire sur l'Inde septentrionale d'Herodote et de Ktesias*, etc.; *Nouvelles Annales des Voyages*, tome II. p. 335—357. In El Rami, an island, near to Serendib (Ceylon), are to be seen men who are but a metre in height, and who speak an unintelligible language, *Géographie d'Edrisi*, trad. fr. tome I, p. 75.

† Malte-Brun, *ibid*, p. 372—373. Herodotus.

‡ Mollien, *Voyage dans l'Intérieur de l'Afrique*, etc. (Paris, 1840), tome II. p. 210.

suppose, says Larcher, that Roxana should have had a child without a head, is an absurdity alone sufficient to throw discredit on Ktesias.* Every medical dictionary, however, would have shown Larcher, that the birth of a headless, or *acephalus*, child is not so impossible.†

The respect to which the genius of Hippocrates is entitled has been, I suppose, the only reason why he has not been taxed with falsehood, when he speaks of a disease prevalent among the Scythians, which changed them into women.‡ M. Jules Klaproth has seen men among the Nogais Tartars, who, losing their beards and their skin becoming wrinkled, have all the appearance of old women; and such among the ancient Scythians were considered as old women, and no longer treated as men. ‖

The history of animals, such as the ancients have transmitted to us, is filled with details apparently chimerical; but which are sometimes only the consequence of a defective nomenclature. The name *Onocentaur*, which seems to designate a monster, uniting the forms of a man and an ass, was given to a quadrumanus which runs sometimes on four paws, but at other times uses its fore paws only as hands; merely an immense monkey covered with grey hair, particularly on the lower part of the body.§ It is only very

* *Traduction d'Hérodote*, 22e édit. tome VI. p. 266, note 35.

† *Dict. des Sciences Médicales*, art. *Acephale*.

‡ Hippocrat. *de Aere, Aquis et Locis*.

‖ Jules Klaproth, *Voyage au Mont Caucase et en Géorgie, en* 1807, 1808. *Bibl. Univ. Littérature*, tome VI. p. 40.

§ Aelian *de Nat. Animal.* lib. XVII. — This description

recently that we have recognised the jerboa, in the description of those Lybian rats, who walked upon their hind legs ;* and detected in the *Erkoom* or *Abbagumba* of Bruce, that African bird which bears a horn upon its forehead.† But what was the Catopleba,‡ that animal of the wild sheep or bull species, said to be endowed like the asp or basilisk, with a breath and glance of a deadly nature? It was the *Gnoo* described by Aelian; and the fact is placed beyond all doubt, by the examination

accords well with that of the *Chimpanzee*, which, in much of its organization, bears a close resemblance to man, but differs from him in many important points. In the first place, the Chimpanzee, like all the troglodyte ape tribe, is a *quadrumanus*, or four handed animal: the jaws are much more developed than in the lowest tribes of the human species; the nasal bones are consolidated into one; the lumbar vertebræ are only four instead of five; and the length of the upper and the shortness of the lower extremities, is a marked distinction. The circumstance, however, of the Chimpanzee walking often erect; arming itself with weapons and living in huts; the form of the head; the long erect ears; and the hairy body; might easily have afforded the idea of the *Onocentaur* described by Aelian.—Ed.

* Jerboa, *Dipus Ægypticus*, belongs to the *muridæ* or mouse tribe, an extensive section of the *rodentia*, or gnawers. They have the head and body of a mouse, and a long tail bushy at the end. Their fore legs are remarkably short, the hind proportionally longer than in any other known quadruped. Theophrastus adds, correctly, "they do not walk upon their fore feet, but use them as hands; and when they flee, they leap." It is found in India, as well as in Egypt, and is eaten by one of the Hindoo tribes, called Kunjers.—Ed.

† N. Mouraviev, *Voyage dans la Turcomanie et à Khiva*, p. 224 à 225.

‡ *Le Constitutionnel du 7 Septembre*, 1821.

of the form of the head of one of those animals that killed Marius' soldiers.* The head of the Gnoo is always declined; its eyes are small, but quick, and seem almost covered by the thick mane which grows upon its forehead. It is scarcely possible, unless it is very nearly approached, to perceive its glance or to feel its breath; near enough, in fact, to hazard being struck by this timid, yet savage animal.† The proverbial expression of danger to which one would, therefore, be exposed, has, by the love of the marvellous, been transformed into a physical phenomenon.

Cuvier‡ has pointed out this resemblance; and in discussing the ancient accounts of animals regarded as fabulous, has expressed his opinion that what we have found so incredible in them, is only the result of incorrect descriptions. These descriptions may have been exact at first, but afterwards vitiated by details imperfectly preserved by traditions, or badly translated in

* Catoblepus *Gorgon*, the brindled Gnoo, an inhabitant of Southern Africa, in the country near the Orange River, where it is found in vast herds. The eyes, which are said to have so deadly a glance, are small, black, piercing, wild, and sinister, and placed very high in the forehead. In his general aspect, the animal is singularly grotesque; having the head of a bull, the neck and mane of a horse, and the slender, muscular legs of the antelope. "His snort," says Capt. Harris, "resembling the roar of the lion, is repeated with energy and effect." (*Wild Sports of Southern Africa*, p. 27, plate IV.)—Ed.

† *Athenæ. Deip.* loc. cit. *Aelian, de Nat. Anim.* loc. cit.

‡ *Analyse des Travaux de la Classe des Sciences de l'Institut de France en* 1815. *Magasin Encyclop. Année* 1816, tome I. p. 44.

memoirs written in a foreign language, and probably abounding in figurative expressions. They may have been corrupted also by the inclination which the ancients indulged in for drawing men and animals closer together, and for connecting physical facts with causes of a moral nature. Geoffroy St. Hilaire saw the *little ring plover*, or dottrel,* free the crocodile from the insect suckers, which attach themselves to the interior of its mouth, exactly as the ancient Egyptians have described it. The moderns considered their recital as a fable, because it was supposed that there existed between the two animals a compact of mutual obligation, which could not be believed. It does not appear that the bird is ever imprudent enough to enter the mouth of the amphibious animal.

After these observations, may we not respectfully recommend to the learned the examination of those prodigies formerly exhibited to Princes and people, as omens of the future; as signs of the will of the Gods, and undoubted tokens of their favour or their indignation? Natural history might thence be enriched by some interesting suggestions, and physiology find many rare instances which, by this examination, would become less problematical, and more easily connected with the general scheme of nature. I shall first of all quote from the collection of Julius Obsequens. This author seems to have confined himself to the task of extracting from the registers to which the Roman Pontiffs annually consigned the

* *Revue Encyclop. Mai,* 1828, p. 300—301.

prodigies declared to them. In the unfortunately short fragment of his work, which remains to us, we find, beside the mention of frequent showers of stones, the assertion four times repeated, that the sterility of mules is not an immutable law of nature; also the account of a spontaneous human combustion, which it was thought might have been caused by the reflection of a burning glass; and two examples of an extra-natural accouchement, the possibility of which has been discussed and undeniably proved in the present day.* Above all we may mention the observations made upon an animal presenting a similar phenomenon to that of the young boy of Verneuil (Amédée Bissieux) in 1814.† In 1826, a young Chinese, without being much inconvenienced, had a headless fœtus‡ attached to his chest and breast bone. In the body of a stag

* *Servio Flacco, Q. Calpurnio, Coss. Romæ puer solidus posteriore naturæ parte genitus. Sergio Galba, M. Scauro, Coss.* Idem (puer) *posteriore naturâ solidus natus, qui, voce missa, expiravit. Julius Obsequens, de Prodigiis.*

† *C. Valerio, M. Herennio, Coss. Maris Vituli cum exta demerentur, gemini vitelli in alvo ejus inventi. Julius Obsequens, de Prodigiis.*

‡ *Séance de l'Académie de Paris,* 28 Août, 1826.—These malformations and deviations from ordinary nature are still regarded as the result of supernatural agency, or as prodigies by the ignorant; but the researches of physiology have demonstrated, that they are merely arrestments, or perversions of the ordinary process of development. In these cases, some organs may be either altogether absent, or defective in parts; or they may be redundant both in number and in parts. In all such cases, the individuals are termed monsters. The varieties of monstrosities are very numerous; but a few only require to be here noticed, in

captured by Otto Henri in the sixteenth century, there was found, if we may believe the physician, Jean Lange, a

addition to those mentioned in the text. Thus individuals have been born without arms, whilst the head and trunk are natural; others in whom both hands and feet have been produced, without arms and legs; and the hands inserted upon the trunk, causing such a similitude to the seal, as to give the name of *phocomeles*, to such unfortunate beings. A man, aged sixty-two, of this formation, was exhibited in Paris in 1800. In other cases, both legs, or both arms have been, as it were, soldered together, so as to form one member, giving the name *symoles* or *siren* to the person. In some instances, the eyes approach and unite, so as to give the appearance of a single eye only; hence the name *cyclopia*; but these and the *symoles*, seldom live many hours after birth. Children have been born, and have lived for years with two heads, and in one case, the accessory head was planted on the summit of the natural head.[a] Many instances have occurred, in which otherwise perfect individuals are born united together, by some part of their bodies, but free in all the others. Two remarkable cases of this description are well known. One was of two sisters, who were born united in Hungary, in 1701. They were christened Helen and Judith, and lived to the age of twenty-two, when Helen was attacked with disease of the lungs; soon after which Judith, who was in perfect health, also became ill; and both expired at the same instant. The second case was that of the Siamese twins, who were exhibited in London in 1829—30. They were fine looking boys of twelve years of age; but united by a production of the navel of each. The writer of this note saw them; and found them intelligent boys. He is uncertain whether they are alive. In all such cases, the formation of twins was the intention of nature, had not disturbing causes interfered with the development. In no instance has the monstrosity been of such a description, as to place the being out

[a] This child was born at Bengal in 1753, lived four years, and died from the bite of a serpent. (*Phil. Trans.* vol. LXXX. p. 296. *Hume's Comp. Anat.*)

well formed fœtus. Did the frequency of these *heteradelphic* monsters (the expression used by M. Geoffroy de Saint-Hilaire to designate the union of two beings, one of which is not completely developed) formerly originate the belief in hermaphroditism, or the alternate change of sex, in the hare and hyena? We may believe it, since a single observation of this kind made upon the *Mus Caspium* (probably the marten) has been also converted into a general fact.* It would not be uninteresting to ascertain whether martens, hyænas, and hares, present this singularity more frequently than other animals.

In the fabulous times of Greece, Iphis and Caenis were both seen suddenly to change their sex by the beneficence of a divinity. The ancients have related similar metamorphoses in less uncertain periods. Pliny quotes four instances, and relates one as having been confirmed by himself.† Accurate observations have proved to the moderns, that in some human beings the development of the sexual organs is so tardy, as to offer the appearance of such a transformation.

M. Geoffroy de St. Hilaire has described a polydactyle horse as having fingers separated by membranes:‡ yet, when ancient authors have spoken of horses, the feet of which

of the natural series to which it belongs; and in every instance, however great the deviation, the species to which the individual belonged has been readily recognized.—Ed.

* Aelian, *de Nat. Anim.* lib. xviii. cap. xviii.

† Plin. *Hist. Nat.* lib. vii. cap. iv.

‡ *Séance de l'Académie de Paris*, 13 Août, 1807.

bore some resemblance to the hands and feet of a man, they have been accused of imposture. The history of inanimate bodies is not less rich in singular facts, which the ancients considered as prodigies, and which the moderns long regarded as fables.

Upon Mount Erycus in Sicily, the altar of Venus was situated in the open air ;* and upon it burnt, night and day, an unextinguishable flame, without wood, coal, or cinders, and in defiance of the cold, the rain, and the dew. Bayle,† one of those philosophers who has rendered the greatest service to the human intellect, regards this as a fable. He would not have received, with more indulgence, the account which Philostratus‡ gives of a cavern observed by Apollonius near Paraca in India, whence continually issued a sacred flame of a leaden colour, emitting neither odour, nor smoke. Nevertheless, nature has kindled similar fires in other places. The fires of Pietramala in Tuscany are, according to Sir Humphrey Davy, owing to an escape of carburetted hydrogen gas.‖ The perpetual fires admired at the Atisch-gah (place of fire), near Bakhou, in Georgia,§ are fed by the naphtha with which the soil is impregnated. These are sacred fires, and the penitent Hindoos have surrounded theirs with an enclosure of cells, similar to those raised round the fire of Mount Erycus, the temple

* Aelian, *Var. Hist.* lib. x. cap. L.

† Bayle, *Dictionnaire historique et critique*, art. Egnatia, note D.

‡ Philostrat. *Vit. Apollon*, lib. III. cap. III.

‖ *Journal de Pharmacie*, année 1815, p. 520.

§ N. Mouraviev, *Voyage dans la Turcomanie et à Khiva*, p. 224—225.

of Venus. In Hungary, in the salt mine of Szalina, in the circle of Marmarosch,* a strong current of air, rushing from a gallery ignites spontaneously. It is carburetted hydrogen gas, similar to that employed in the present day for lighting our streets. For this purpose it has been profitably applied, and with a success which apparently will prove durable, since the gaseous effusion is no less uniform than abundant. In the province of Xen-si in China, several wells emit volumes of carburetted hydrogen, which is applied by the inhabitants to the common uses of life.† Phenomena, similar to those we have described, would at the disposal of thaumaturges, become powerful auxiliaries to superstition. The ignorant have been led to believe, that water was metamorphosed into blood; that the heavens rained blood, and that the snow lost its natural colour and appeared stained with blood; and even that flour bread has offered a blood-imbued nourishment to man, from which severe diseases arose. These are the facts we find in ancient history, and even in some modern writings, almost of our own times.

In the spring of the year 1825, the waters of the Lake of Morat presented an appearance, in many places of being coloured with blood; and popular attention was directed towards this strange appearance. M. de Candolle,‡ however, proved that the phenomenon was

* *Le Constitutionnel*, du 7 Septembre, 1826.

† *Extract from the account of Vanhoorn and Van Kampen*, 1670. *Séance de l'Académie des Sciences*, 5 Décembre, 1836.

‡ Professor de Candolle, the most distinguished botanist of the present period.—Ed.

caused by the development of myriads of those creatures, which are called Oscellatoria *rubescens* (*purple conferva* of Fuller), and which form the link in the chain between animal and vegetable beings.* The phenomenon occurs every spring, and the fishermen then say, the lake is in flower.† M. Ehrenberg, when sailing on the Red Sea, discovered that the colour of the water is occasioned by a similar circumstance.‡ It would not, therefore, be impossible, for a naturalist, were he to study the mode of reproduction of the Oscellatoria, to convert the waters of a pond, or a portion of a river, or running stream into apparent blood.

We are acquainted with many natural causes which explain those stains observed on stones and the walls of buildings, which might easily be imagined to be caused by a shower of blood. The phenomenon of red snow, less often remarked, although as common as the other apparent blood stains, yet results from many natural causes. Naturalists have attributed it sometimes to the pollen powder of a species of pine; some-

* *Revue Encyclopédique*, tome xxxiii. p. 676.

† The phenomenon on the occasion referred to continued for several months. In the advanced period of the day, the lake appeared covered at a little distance from its banks with long parallel, red lines, which were driven by the wind into the small bays; and being collected round the weeds, formed a spume of a beautiful colour, varying from greenish black to lively red. A putrid odour exhaled from the shallow places. The flesh of the pike and the perch became as red as if they had been fed on madder, and the small fish died.—Ed.

‡ *Revue Encyclopédique*, tome xxxiii. p. 783, and *Nouvelles Annales des Voyages*, 2nd edit. tome vi. p. 383.

times to small insects, or minute plants, which attach themselves also to the surface of certain marbles,* and to those calcareous pebbles, which are found on the sea shore.†

* See on this subject the interesting Memoir of M. le Professeur Agardh, *Bulletin de la Société de Géographie*, vol. VI. p. 209—219; and the Mémoire de M. Turpin on the red substance, which is found on the surface of white marbles, *Académie des Sciences*, séance du 12 Décembre, 1836.

† The account of the red-snow, which Captain Ross observed in the Arctic Region, and the specimen of the substance which that officer brought home, excited in no ordinary degree the attention of the naturalists, botanists and chemists, of Europe, and many theories were formed to explain its nature. The most satisfactory opinion was given by Professor Agardh, in a memoir published in the twelfth volume of the *Nova Acta Naturæ Curiosorum*, p. 737. The Professor first notices a shower resembling sulphur that fell near Lund, and which was found to be the farina of the fir; and two showers of apparent blood; more especially one which fell at Shonen in 1711, occasioned by insects; but which the Bishop of Swedberg pronounced to be a miraculous intervention of the Divinity, and not a natural event. He then mentions most of the parts of Europe, where red snow has been observed; and also the opinions of botanists respecting it; especially that of Baron Wrangel, that it was a species of lichen, which he termed Lepraria *kermesina*; but Dr. Agardh regarded it to be one of the *Algæ*, and named it Protococcus *nivalis*, or *kermesinus*. He examined it under the microscope, and found that it consists of minute, blood-red opaque particles, perfectly round and sessile: they were both aggregated, forming little clusters, and solitary. He considers that there is a great affinity between it and the infusory animals—beings which seem to be the link between the animal and the vegetable kingdom, and which pass into each other; and for the existence of which the agency of light and heat is essential. The protococcus has never been seen except on white bodies. It has been asserted by naturalists that

In the environs of Padua, in 1819, the polenta prepared with the flour of maize appeared covered with numerous little red spots, which were soon considered, in the eyes of the superstitious, as drops of blood. The phenomenon appeared many successive days; although pious terror sought by fasts, prayers, masses, and even exorcisms to bring it to a termination. Those feelings excited to an almost dangerous degree, were at length calmed by a naturalist,* who proved that the red spots were but the results of a mould until then unobserved.†

it is precipitated from the atmosphere; but this opinion, has not been made out. Agardh supposes that the melting of the snow, and the vivifying power of its light contribute to the production of this plant; but, I may remark that although these powers may call the plant into existence, when its spawn or germs are present, yet, we are still in the dark as to whence it is derived. An excellent figure and account of the plant is contained in Dr. Greville's *Scottish Cryptogamic Flora*, vol. iv. p. 231.—Ed.

* *Revue Encyclopédique*, p. 144—5.

† Blood spots, as these were termed, were first observed during the great general plague in the sixth century, and again during the plague of the years 786 and 959. "The same spots also, in the years 1500 to 1503, threw the faithful into great consternation, because, as on the former occasions, they fancied they recognized in them the form of the cross." Crusius, a writer of that period, even gives the names of many on whose clothes crosses were visible. In the vicinity of Biberach, on the Rhine, a miller's lad, who ventured to make rude sport of those supposed markings of the cross, was seized and burned.[a] These spots on the last mentioned occasion, spread through Germany and France. They were principally red, but they varied in colour. They appeared on the roofs of houses; on clothes, (whence the name

[a] Heoker's *Epidemics of the Middle Ages*, trans. 1844, p. 205.

The grain of the bearded darnel (*Lolium temulentum*), mixed with wheat, gives a reddish tinge to bread baked on the ashes; and if this food be eaten, it occasions violent giddiness. Thus, in all the examples quoted, the natural effect being satisfactorily made out, the marvellous disappears, and with it falls the accusation of imposture or ridiculous credulity with which ancient authors are so frequently accused.

On the surface of the hot mineral springs of Baden in Germany, and on the waters of Ischia, an island in the kingdom of Naples, the zoogène is gathered, a singular substance resembling human flesh and skin; and which, after undergoing the process of distillation, produces the same results as animal matter. M. Gimbernat* has seen rocks covered with this substance near the castle of Lépoména, and in the valleys of Sinigaglia and Negropont.† This affords an explanation

*Lepra vestuum*); on the veils and neck-handkerchiefs of women; on household utensils; and even on meat in larders. George Agricola, a naturalist, who lived at the time, recognized them as lichens, and regarded their appearance as an indication of extensive disease.[a] At so late a period as 1819, a red colouring mould appeared on vegetable and animal substances, in the province of Padua, which excited superstitious apprehensions among the people.[b]—Ed.

* *Journal de Pharmacie*, 1821, p. 196.

† It is most probably an hæmatococcus, one of the Zoocarps, peculiar organized bodies variously classed by botanists and zoologists as *animals* or *plants*, owing to the difficulty of deter-

[a] Agricola, *De Peste*, 1554, lib. i. p. 45.

[b] Vincenzo Sette, *sull' Arrosimento straordinario*, &c., quoted by Hecker, l. c. p. 206, note.

of those showers of human flesh, which held a place among the crowd of the prodigies of antiquity, and which excited an excusable dread in those who beheld in them an announcement of the decrees of fate, or threatenings of the Divinity; and who would impute to divine intervention every rare and opportune event.*

In 1572, some time after the massacre of St. Bartholomew, a hawthorn blossomed in the Cimetière des Innocents;† fanaticism saw in this pretended prodigy a convincing proof of the approbation of Heaven of the destruction of the Protestants.

When the soldiers of Alexander were digging wells in the vicinity of the Oxus, they remarked that a spring flowed in the tent of the King; as they had not at first perceived the water, they pretended it had arisen suddenly; that it was a gift of the Gods; and Alexander was willing they should believe it to be a miracle.‡

The same wonders have been displayed in very different times and places. In 1724, the Chinese troops pursuing in Mongolia, an army of rebels, suffered severely

mining to which division of the organic kingdom of nature they belong.—Ed.

* There can be no doubt that every event in the system of nature is under the direction of the Deity; but this does not set aside the agency of secondary causes, which are continually operating; and by whose influence we explain both the ordinary phenomena of nature, and rare and opportune events.—Ed.

† Thuan, *Hist.* lib. lii. § 10.

‡ *Q. Curt.* lib. vii. chap. x.

from thirst. They discovered a spring near the camp, and cried out that it had issued miraculously from the ground. This favour was attributed to the spirit of the Blue Sea,* which lay in the vicinity of the spot where the miracle was observed; and the Emperor ordered a monument to be raised to record the event.

The Emperor Isaac Comnenus being overtaken by a violent storm, took shelter under a beach tree. The noise of the thunder alarmed him; he, therefore, changed his place; and immediately afterwards the beach was uprooted by the violence of the wind. The preservation of the Emperor's life passed for a miracle owing to the intercession of St. Thecla,† whose day is even now observed by the Christians; and to whom Isaac Comnenus dedicated a church.‡

The rain which so opportunely succoured Marcus Aurelius in the war against the Marcomans was attributed by the Christians to the efficacy of their prayers;—by Marcus Aurelius to the favour of Jupiter;—by some polytheists to an Egyptian magician; and by others to the astrologer Julianus; but all concurred in regarding it as a celestial prodigy.

When Thrasybulus came at the head of the exiled

* Timkowski, *Voyage à Pekin*, t. II. p. 277.

† Saint Thecla was a native of Isauria. She was well educated, and is renowned for her eloquence, which she is said to have received from St. Paul, by whom she was converted from Paganism; and on whom she attended in several of his apostolical journies. *Butler's Lives of Saints, &c.* p. 498.—Ed.

‡ Anna Comnenus, *Hist. de l'Empereur Alexis Comnène*, liv. III. chap. VI.

Athenians to deliver his country from the yoke of the thirty tyrants,* a fiery meteor illumined his path: it was regarded as a divine fire, sent by the Gods to guide him in the darkness of the night, and to conduct him by roads unknown to his enemies.

The falling of aerolites has so frequently happened, that it may concur with the moment of a combat: and such a coincidence probably gave rise to the fiction that Jupiter rained stones on the enemies of Hercules.† Were we to credit the Arabs, a similar shower crushed at the foot of the walls of Mecca, the Ethiopians, who were the profane besiegers of the sacred city.‡ It is also related that Basil, chief of the Bogomiles returning in the evening from the palace of the Emperor ‖ to his cell, was assailed by a shower of stones, not any of which were thrown by a human hand: and that the phenomenon was accompanied by a violent earthquake. The enemies of Basil deemed this phenomenon a supernatural punishment upon the heretical monk.

The inhabitants of Nantes, at the time when their

* *S. Clement. Alex. Stromat.* lib. I.

† This fable may also be explained by supposing it a specimen of the figurative style. The pebbles which cover the plain where the battle was fought would furnish abundant ammunition to the warriors armed with slings, who under the auspices of their national God, the Tirynthian Hercules, invaded the south of Gaul and fought the natives.

‡ Bruce, *Travels to discover the Source of the Nile,* vol. II. p. 446—447.

‖ Anna Comnenus, *Histoire de l'Empereur Alexis Comnène,* liv. xv. chap. IX.

country was under subjection to the arms of Julius Cæsar, took refuge in the marshes, which form at some distance the river of Boulogne. Their asylum enlarged, and became a town, known under the name of Herbatilicum. In 534, the soil on which it was built, having been undermined by water, sank into a lake, which swallowed up the town; one part of it situated on high ground alone remained, and is at this day the village of Herbauge. Hagiographers promulgated as a miracle this disaster which is so naturally explained; and we are told that St. Martin, who was sent by St. Felix, Bishop of Nantes to convert the inhabitants of Herbatilicum, finding them immoveable in the faith of their fathers, and in consequence of the reception he met with, departed in despair; the town immediately was engulphed, and a lake usurped its place, presenting an enduring monument of the chastisement inflicted on unbelief.*

In the bay of Douarnanez, similar marine ruins may be observed. These, says ancient tradition, are the remains of the town of Is, which was swallowed up by the sea in the commencement of the fifth century. Gralon, King of the country, alone saved himself; and the impression made on the rock by the hoof of the horse that carried him away is still pointed out.† Inundation is a local phenomenon which cannot be a matter of surprise; other ruins on the same coast attest the

* *Actes de St. Martin, Abbé de Vertou,* in the *Preuves de l'Histoire de Bretagne de Dom Morice,* tome I, p. 196. See also *La Vie de St. Martin,* Oct. 24, and *La Vie de St. Filbert,* August 20.

† Cambray, *Voyage dans le département de Finistère,* tome II. p. 221 –224.

ravages of nature: but it has ever been, in all ages, the inclination of man to take advantage of natural disasters, and to announce them as preternatural events intended for the benefit of mortality.

The ignorance of the fact that certain phenomena are peculiar to certain localities, has caused some events to be either revered as supernatural interpositions, or rejected as impossibilities. Among such are pretended showers of nutritive substances. We are told that in 1824 and in 1828, a shower of this kind fell in a district of Persia; and so abundant was the rain, that in some places it lay five or six inches deep on the ground. The supposed fallen substance, however, was a well known species of lichen, which the cattle, and the sheep eat up with great avidity; and which was also converted into very eatable bread.* How many natural occurrences have thus passed for miracles.

If the multitude have often regarded as prodigies some local phenomena, the periodical return of which they did not reckon upon, ignorance also, or forgetfulness, has often obscured the knowledge of the natural facts, even to the priests themselves, who proclaimed them as prodigies. The following example affords a proof of this remark. The Ælians worshipped Jupiter Apomyios (the fly catcher); and at the commencement of the Olympic games, a sacrifice to the God was performed for the banishment of all the flies. Hercules in the place, where a temple was afterwards raised to him, invoked the God Myagrus† (also a fly catcher), on which

* *Séance de l'Académie des Sciences,* Aug. 4, 1826.

† Myagrus, or Myodes, was an Egyptian demi-god.—Ed.

account the story adds, the flies were never after seen in that temple.* But independent of the use of secret means, such as certain fumigations, which drive away flies, the disappearance of these insects was only a natural consequence of the profound obscurity which always reigned in heathen sanctuaries. In order to discover whether the prodigy bestowed the surname on the God, or whether the surname of the God was the origin of the pretended prodigy, let us examine where the worship of the fly-catching God commenced.

In Syria and in Phenicia the God Belzebuth or Baalzebud,† *the God or lord of the flies,* was worshipped; and at the approach of Pluto, or Hercules the serpent, the constellation which rises in October, all the flies disappeared. But such a coincidence could only occur and be consecrated by religion in a country where the presence of the flies amounts almost to a plague; and where the revolution of the seasons regulates their periodical return.

The inhabitants of Cyrene made sacrifices to the God Achro to be delivered from flies.‡ This draws us

* *Solinus,* cap. I. Plin. *Hist. Nat.* lib. x. cap. XXVIII. and lib. XXIX. cap. VI.

† The name of Baal-zebud may be traced in that of Bal-zub, under which the ancient Irish worshipped the sun as the God of Death; that is the sun of the inferior signs; the same as Serapis and Pluto, (C. Higgins on the *Celtic Druids,* p. 119). It is difficult now to prove a common origin between the divinities of Ireland and those of Phenicia. Baal-zebud was in Phenicia the star of the autumnal equinox, the God whose annual arrival put an end to the plague of flies.

‡ Plin. *Hist. Nat.*

nearer to the point we desire to arrive at. It was from the platform of Meroe,* far from the formidable Tsaltsalya, that the shepherds took flight, to await the autumnal equinox, the desired termination of his six months' reign. They must have worshipped in this conqueror of flies, the constellation of the equinox, afterwards represented by Serapis, Pluto, and the Serpent. In the countries where this divinity was adored as changing the face of the earth and the destinies of men, the lively impression made on those who had frequently witnessed the plague over which he triumphed, concurred to extend his worship from Cyrenaiea into Syria, among the Phenicians.

The Romans and the Greeks, perhaps, also borrowed this superstition; but it is remarkable that Greece attached itself only to African traditions. The Arcadians of Heræa joined the worship of the demi-god Myagrus, which they had acquired from Africa, to that of Minerva. Their tradition reported indeed that Minerva was born in Arcadia, but it was on the margin of the fountain Tritonides, that we are told the same wonders were

* Modern geographers have differed in fixing the locality of Meroe; but M. Cailloux has settled the question. He describes it to be that part of Africa in the vicinity of the Nile, which is formed into a kind of peninsula by the Nile itself, not its branches Astapus and Astaboras as formerly supposed. The river bends in such a manner as nearly to insulate a space so large, that to travel round it requires many weeks, while across its neck, is only one day's journey. Its inhabitants resembled the Egyptians in their refinement and their architecture; indeed Meroe was supposed to have been the cradle of most of the religious institutions of the Egyptians.—Ed.

displayed,* as those which assigned the lake or river Tritonis in Lybia, as having the honour of being the birth-place of Minerva. An Arcadian colony which established itself among those hills on which, at a future period Rome was built, carried there the worship of Hercules. If Numa owes to the Tyrrhians the knowledge which induced him to consecrate at Rome, under the name of Janus,† a temple to the planetary God of Meroe,‡ it was most probably communicated by the companions of Evander, who, long before his time, had raised an altar on the banks of the Tiber to the annual liberator of the river Astapus and Astaboras.

When the worship of this local divinity was thus propagated among a people, to whom it must have been foreign, the prodigy attributed to him arose naturally from the interpretation of his name, of the origin of which they were ignorant. Analogous inventions have at all times been numerous; and especially when they were often fostered by the exhibition of the emblems appropriated to the name which the God bore, and regarding which the supposed prodigy furnished a plausible explanation.

The vulgar, for whose adoration prodigies are presented, believe without reflecting on the nature of their

* Pausanias, *Arcad.* cap. XXVI. The Bœtians also of Alalcomenia show in their country a river Triton, on the banks of which they placed the birth of Minerva, (Pausanias, *Bœot.* cap. XXXIII).

† Janus was merely a symbolical representation of the year. Some of his statutes held the number 300 in one hand and 65 in the other.—ED.

‡ Lenglet, *Introduction à l'Histoire*, p. 19.

belief;—the man of education submits, from habit, to the established belief;—the endeavours of the priest is to make it respected, and to increase his own influence.*

* It is curious to observe superstition holding her sway over the minds of the ignorant long after the sun of Christianity dispelled the shades of idolatry, and shed its benign influence upon this island. Kirk, in his Essay on Fairies, seriously informs us that these beings changed their places of abode at each quarter of the year; "and at such revolution of time," says he, "*seers, or men of the second sight,* have very terrifying encounters with them, even on the high ways; who, therefore, usually shun to travel abroad at these four seasons of the year, and thereby have made it a custom to this day among the Scottish-Irish to keep church duly every first Sunday of the quarter to sain or hallow themselves, their corne and cattell from the shots and stealth of these wandering tribes; and many of these superstitious people will not be seen in church againe 'till the next quarter begin, as if no duty were to be learned or done by them, but all the use of worship and sermons were to save them from these arrows that fly in the dark."[a] The popular creed, also, at the same period, and almost onward to the present day, was burthened with the belief in *omens,* and *auguries,* whilst the common people nourished as sacred the most absurd superstitions and observances. Reginald Scot, who wrote a work entitled "*Discoverie of Witchcraft,*" says, "amongst us there be manie women and effeminat men (manie papists alwaies, as by their superstition may appeare) that make great divinations upon the shedding of salt, wine, &c.; and for the observation of dates, and horses use as great witchcraft as in anie thing. For if one chance to take a fall from a horse, either in a slipperie or in a stumbling waie, he will note the daie and hour, and count the time unlucky for a journie. Otherwise he that receiveth a mischance, will consider whether he met with a cat, or a hare, where he went first out of his doores in the morning; or stumbled not at the threshold at his going out; or put

[a] Kirk's *Essays on Funerals,* p. 2, 3.

Miners who have died from suffocation, were at one time thought to have been killed by the *demons of the*

not on his shirt the wrong side outwards; or his left shoe on his right foote."[a] Reginald's name-sake, Sir Walter Scott, informs us that supernatural appearances are "still believed to announce death to the ancient Highland family of MacLean of Lochbuy. The spirit of an ancestor slain in battle is heard to gallop along a stony bank, and then to ride thrice around the family residence, ringing his fairy bridle, and thus intimating the approaching calamity."[b] Sir Walter refers to this omen in the *Lady of the Lake.*

> "Sounds, too, had come in midnight blast,
> Of charging steeds, careering fast
> Along Benharrow's shingly side,
> Where mortal horseman ne'er might ride."

The *tomb-fires* of the Scandinavians, the *tan-we* of the Welsh, were also omens announcing death; and it was generally believed that when a freeholder was about to die, a meteor was always seen either to shoot over and vanish on his estate, or to gleam with a lurid light over the family burying ground. Mrs. Grant, in her Essays on the superstitions of the Highlanders of Scotland, relates a singular instance of the belief of a learned and pious clergyman in the predictive property of these *tomb-fires,* well worthy of perusal.[c] The apparition of the "corpse candle," canwyll corph, implicitly believed in Wales, is a light which is supposed to pass from the habitation of a person about to die, to the church-yard, precisely along the path which the funeral must afterwards proceed. It is believed to be a mark of divine beneficence conferred upon the Welsh, from the prayers of St. David, who, on his death bed, obtained a promise that none of his flock should die without having previous intimation of his death. The Welsh have implicit belief in the apparition; they give the name "canwyll corph," also to the inflammable gas, fired by electricity

[a] Scot's *Discoverie of Witchcraft,* p. 203.
[b] *Lady of the Lake,* p. 106.
[c] Vide Grant's *Essays,* &c. vol. 1. p. 259.

*mine;* who were infernal spirits, guardians of treasures hidden in the depths of the earth, and who destroyed all covetous men, for endeavouring to penetrate to their asylum. In these ancient and universal traditions we recognise the effects of exhalations and noxious gasses, which are disengaged in subterraneous places, particularly in mines. In order to preserve the miners from their deadly influence, science has investigated their nature, and by thus acquiring a control over them, has dissipated the phantoms, which were created by ignorance and terror. But could this have been attempted with success, had science been able only to point out the evil without having discovered the remedy? Could science have dared to promulgate its beneficial discovery, when Princes, who committed their gold to the bosom of the earth, beheld in those superstitious terrors the surest safeguard of their hidden treasures: or even so long as the miners referred to the influence of the *demons of the mine*, not only the real dangers that surrounded them, but also attributed to them their own awkwardness, their faults, and their misconduct in their subterranean dwellings?*

To science it still belongs to denounce and to eradicate such universal errors, which may be regarded

in boggy grounds; and which they believe indicates the death of a Welshman in some distant country. They have, also, credulity sufficient to give credence to another apparition which they call *teulu*, a kind of phantasmagoria representation of the funeral.—Ed.

* J. Tollins, *Epist. Itiner.* p. 96, 97.

* Meyrick's *History and Antiquities of Cardiganshire*, 4to. p. 123.

as real epidemics, by which multitudes are duped, although without a deceiver. At one time it was believed in two countries of Italy that the accouchement of women was always accompanied by the birth of monsters, an event which was believed so common, that these monsters were designated "*brothers of the Lombards, or Salernitans*,"* and they went so far as to believe that in the patrician families they were noble animals, such as eagles, and hawks; and, in the plebeian families, the baser animals, such as lizards and toads. This belief gave rise to frequent accusations of sorcery, productive of atrocious condemnations; and at that time any learned man would have shared the same fate as the victims whom he might have desired to save; if, in opposing the general extravagance of opinion, he had unveiled some ill-observed or incorrectly reported phenomenon as the origin of it: and thus exposed the deceptions inspired by folly, or interest, or the spirit of revenge.†

* Flomann Tractatus de Fascinatione, pages 622, 623, 626. *Frater Lombardorum vel Salernitarum.* Rabelais probably alluded to this absurd belief in the prodigies described as having preceded the birth of Pantagruel, (liv. II. chap. II.) prodigies which have always been regarded as deserving a place among those extravagant fictions which sometimes are destined to serve as passports to bold truths.

† In the commencement of the seventeenth century, a French priest having been, by an unlucky chance, attacked by one of the lower animals in a manner too disgusting to relate, was accused of sorcery by his own brother. On the outcry of the whole town, struck with horror, he was taken before the tribunal of justice; and constrained by the pains of the torture to confess an

To explain many tales of sorcery, and elucidate many features in mythology, it is only necessary to observe the deviations from the usual course of nature among tame animals, and among those in a state of confinement, and detached from the society of their fellows.

But it would have been in vain for the voice of science to have raised itself to explain a phenomenon in which enthusiasm beheld a prodigy; especially when men who had the power of creating belief, had an interest in persuading the multitude that the prodigy was real. The priesthood would have menaced him in the name of that Divinity, whose rights he might be accused of contemning. Eresicthon, so says an ancient fable, used his axe in cutting down a wood consecrated to Ceres. Some time afterwards he was attacked by the disease named Bulimia,*—a malady which was as

imaginary crime, for which he was condemned, and suffered an ignominious death. Could a well informed man, had he then related what Aristotle had written twenty centuries before regarding the charge, have ended the scandal, and terminated an absurd criminal prosecution, or prevented its abominable issue? A man, enlightened amidst a blind population, would he not have been called upon to exculpate himself as a favourer of the crime, and as an accomplice of the sorcery? Such a result might be suspected, when we are told that the illusion was entertained even by the celebrated Aubigné, one of the most enlightened men of the time in which he lived.

* The quantity of food consumed in some of the well authenticated cases of this extraordinary disease, is almost incredible. Among others, Dr. Cochrane, of Liverpool, has recorded the case of a man, placed under his own personal inspection, who in one day consumed four pounds of raw cow's udder, ten pounds of raw beef, and two pounds of candles, besides five bottles of porter. The disease has appeared in persons of all ages; and many of

well known in the times of the ancients, as in our own. He suffered insatiable hunger, which he attempted in vain to satisfy. His wealth soon disappeared: all his resources failed; he sank under his malady, and died of inanition: the priests of Ceres consequently triumphed; and a fable invented by them, records that the impious Eresicthon perished miserably, the devoted victim of the vengeance of the Goddess, whose gifts are bestowed for the nourishment of the human species.*

Such were the nature of those accidents which the priests knew how to turn to advantage, when circumstances threw them in their way: nor did they allow a single phenomenon of this kind to escape their investigation. The Roman Pontifs, however, did not introduce the practice of inserting in registers the miracles, which were every year brought to light; they borrowed the custom from the Etruscan priests, whose sacred books are frequently quoted by Lydus :† and it is more than

them seemed to be, in every other respect, in good health. They, however, have usually soon died, and not unfrequently of apparent inanition.[a] The unfortunate Thessalian mentioned in the text, is said to have been driven to devour his own limbs. Ovid extends the tradition, and completely destroys its probability, by relating that the daughter of Eresicthon could transform herself into any animal she pleased; a power which she employed for her father's benefit.—*Metamorp.* f. XVIII.—ED.

* Modern superstition equals in many respects the ancient. Fromann (*Tract. de Fascinatione*, p. 6, 13) quotes instances of Bulimia, which might be regarded as examples of persons possessed by a devil.

† *Lydus de Ostentis.*

[a] *Medical and Physical Journal*, vol. III.

probable that this usage has existed in all the ancient temples. With whatever intention they may have been at first established, such records must, in the end, have afforded very extensive information. It is difficult to collect a series of philosophical observations, without even involuntarily drawing comparisons.

For instance, it would be interesting to discover what is reasonable or scientific in the judgment given by a priest or an augur, on the results of a miracle, or the expiatory ceremonies proscribed for displaying them. Often, without doubt, it was only meant to disturb, or to reassure the alarmed imagination: often ignorance and fear blindly obeyed a superstitious custom, however stupid or ferocious. But as Democritus informs us, the condition of the entrails of the animals sacrificed would furnish to a new colony, disembarked on an unknown shore, a probable idea of the nature of the soil and the climate on which their future welfare depended.*

The inspection of the liver of the victims, an operation which afterwards served as a basis for many predictions, had originally no other object. If they found it in all victims presenting an unhealthy character, they concluded there was little salubrity, either in the waters, or the pastures. The Romans were also

* There can be no doubt that valuable information on the score of health might occasionally be obtained from such inspections; yet animals like men become naturalized to the localities in which they have long resided, and do not suffer from their insalubrity as animals or men newly transported to them. More accurate information can be obtained from observing the description of animals, reptiles, and insects peculiar to the country, and particularly the plants indigenous to the soil.—Ed.

regulated by similar indications, in determining the foundations of towns, and the position of fortified camps.* Such examples prove that some of the religious practices of the ancients, emanated from positive science, founded on long observation; and in these we may still discover instructive vestiges and real philosophy.

We have now reason for believing that magical performances were much more useful to the priests than prodigies, since far from happening suddenly, the precise moment, the extent, and the nature of the results were entirely dependant on the will of man. The apparent miracles related by the ancients explain themselves naturally; their accounts of them cannot, therefore, be regarded as falsehoods: and wherefore should their recitals be doubted, when they treat of magical performances, which also admit of explanations not less satisfactory? It can only be believed that the priests possessed and kept secret the knowledge necessary to operate these wonders. Let us not overlook the rule by which our belief may be regulated; namely, the measure of favourable or of contrary probabilities. Is it likely that in every country, men whose veracity we have established on points which have been powerfully attacked, should relate so many absurd wonders, and yet have only for their object to impose upon the ignorant? Is it not more probable that the recitals are founded on truth; and that these wonders have been affected by means acquired from the study of the Occult Sciences, which were shut

* *Vitruvius de Archit.* lib. I. cap. IV. *Cicer. de Dioni.* lib. I. cap. LVII.

up in their temples? And does not this likelihood approach to certainty; if we admit, that careful observation and a patient comparison of all prodigies and extraordinary facts, would endow the priests with a considerable fund of practical knowledge:—and, that from these researches magic may have originated?

## CHAPTER V.

Magic—Antiquity and universality of the belief in Magic—Its operations attributed equally to the principle of evil and of good—It was not considered by the ancients to imply the subversion of the order of nature—Its truth was not disputed even when emanating from the disciples of an inimical religion.

TIME, the only power which refuses to regard any thing as invariable, sports with creeds, as it does with facts: it passes on; and, in leaving traces on its steps of the vestiges of obsolete opinions, we are astonished to find expressions once nearly synonymous, now differing very widely with respect to the ideas which they are intended to convey.

During a long period of time the world was governed by Magic. An art, which, as the sublimity of its origin was credited, appeared little less than a participation in the powers of Divinity; and which, at the commencement of our era, was even admired by religious philosophers "as the science which unveils the operations of Nature,* and leads to the contemplation of celestial powers."†

* *Phil. Jud. lib. De specialibus Legibus.*

† *Idem. lib. Quod omnis probus liber.*

A hundred and fifty years later than the period just mentioned, the number of its professors, and still more the worthlessness of the charlatans, who made it their trade, held magic up to the contempt of all enlightened men. So much, indeed, was this the case, that Philostratus in his biography of Apollonius of Tyana,* asserts with eagerness, that his hero was no magician.† In resuming its importance, during the darkness of the middle ages, Magic became an object of horror and dread: but the progress of knowledge, and the dawn of truth, in the last and in the present age, has again reduced it to an object of ridicule.

The Greeks gave the title of Magic to the science, in which they had been instructed by the Magi ;‡ and they

* This Apollonius, for there were many of the name, was a Pythagorian, and an assumed magician, who gained much reputation by a few remarkable coincidences which seemed to establish his pretended power of looking into futurity, and knowing what events were transacting in distant countries, at the time he was relating them. Thus, at the very moment the Emperor Domitian was stabbed, Apollonius stopped short in the middle of a harangue he was delivering at Ephesus, and exclaimed: "Strike the tyrant—strike him;" and when the news of the assassination afterwards arrived, he asserted that he had seen the transaction passing in his mind's eye. Although one of the most impudent impostors of his period, yet he was courted by Princes, and commanded almost universal homage. The stories told of his supernatural power by Philostratus are utterly unworthy of belief.—Ed.

† *Philostrat. Vit. Apollon.* lib. I. cap I. et II.

‡ The *Mobeds*, priests of the Guebers, or Parsees, are still named Magoi in the *Pehivi* dialect.—*Zend-Avesta*, vol. II. p. 506; and chap. IX.

thus established to the founder of that religion the claim to its invention. But, according to Ammianus Marcellinus,* Zoroaster had no other merit than that of making considerable additions to the art of Magic, as it was practised by the Chaldeans.† In the wars carried on against Ninus by Zoroaster, who was King of Bactria, Arnobeus‡ affirms that on both sides magical arts were employed in common with more ordinary weapons. The prophet of the Arieni, according to the traditions, preserved by his disciples, was subject from the cradle to the persecutions of magicians; and just before his birth the world teemed with these pretenders to supernatural power.§ Saint Epiphanius‖ relates that Nimrod in founding Bactria,

* *Amian. Marcell.* lib. xxvi. cap. vi.—An historian of the time of Constantine who wrote a history of Rome; and who, although a pagan, and consequently favourable to polytheisms yet was moderate in his censure of Christianity.—Ed.

† The period in which Zoroaster, or Zerduster, is supposed to have lived is uncertain but his religious system became that of Western Asia from the time of Cyrus to the conquest of Persia by Alexander the Great. The doctrine of a good and an evil principle was the foundation of his religious system. He taught that both were created by the Almighty; but that man and all the materials of happiness were created by the good spirit, who was named Ormuzd; whilst the latter, Ahrinnan, introduced all the evils abounding in this world. The Magi were the sacerdotal class in ancient Persia: they worshipped fire, and the sun as the emblems of Ormuzd.—Ed.

‡ *Arnob.* lib. i.

§ Life of Zoroaster. *Zend-Avesta,* tome i. Second part: p. 10, 18, &c.

‖ *S. Epiphan. advers. haeres.* lib. i. tom. 1.—Saint Epiphanius, although a Christian Bishop, yet was born of Jewish parents at Besanducan, near Eleutheropolis in Palestine. In early

established there the sciences of Magic, and of astronomy, the invention of which was subsequently attributed to Zoroaster. Cassien speaks of a Treatise on Magic,* which existed in the fifth century, and which is attributed to Ham, the son of Noah! The Father of the Church, just quoted, places the commencement of Magic and of enchantments as far back as the time of Jared, the fourth from Seth, the son of Adam.

Magic holds a prominent place in the traditions of the Hebrews. The ancient inhabitants of the land of Canaan had incurred the divine wrath, by their use of enchantments.† The Amalekites fighting with the Hebrews,‡ in their flight from Egypt, and Balaam besieged in his city by the King of the Ethiopians, and subsequently by Moses,§ alike recurred to Magic, as a

life he was a disciple of the Gnostics in Egypt; was made Bishop of Salamis, the metropolis of Cyprus, in the year 368, and died at sea, A.D. 403. His writings are valuable as containing many quotations from works no longer extant. Jerome affirms that he was well acquainted with the Latin, Greek, Hebrew, Syriac and Egyptian languages, and calls him Pentaglottos, the five-tongued; but Scaliger doubts his learning, and asserts that he committed the greatest blunder, and told the greatest falsehoods.—ED.

* Cassien, *Conferen.* lib. I. cap. XXI.

† *Wisdom of Solomon.* "Whom thou hatest for doing most odious works of witchcraft, and wicked sacrifices; and also those merciless murderers of children, and devourers of man's flesh, and the feasts of blood; with their priests out of the midst of their idolatrous crew; and the parents that killed with their own hands souls destitute of help.—Chap. XII. ver. 4, 5, 6.

‡ *De vita et morte Mosis,* &c. p. 35.

§ *Ibid.* p. 18—21.

mode of defence.* The priests of Egypt were looked upon even in Hindostan, as the most subtle of all magicians. Not less versed than themselves in the secrets of their science,† the wife of Pharoah was able to communicate its mysteries to the remarkable child saved from the waters of the Nile by her daughter; and who, "learned in all the wisdom of the Egyptians, was mighty in words and in deeds."‡ Justin, agreeing with Trogilius Pompeius, relates that, Joseph having been carried into Egypt as a slave, acquired there the arts of Magic, which enabled him to foresee, and to avert the horrors of famine, which, without this interposition, must have depopulated that beautiful kingdom.§

From the earliest ages, Magic has obtained the highest consideration in Hindostan. M. Horst¶ establishes the truth, that the collection of the *Vedas* contains many magical writings. He remarks that the laws of Menou, in the Code published by Sir William

* *Les Mille et une Nuits,* 507e Nuit, (*traduction d'Edouard Gauthier*), tome VII. p. 38.

† *De Vita et Morte Mosis,* &c. note, p. 199.

‡ *Acts of the Apostles.* cap. VII. vers. 22.

§ *Justin,* lib. XXXVI. cap. II.[a]

¶ M. Greg. Conrad Horst, published in 1820 and 1821, *The Library of Magic,* 2 vols. I have not been able to consult the German original, what I quote from it here, and in the 4th chapter, is obtained from a notice which the erudite M. P. A. Stapfer has had the kindness to communicate to me.

[a] That Joseph might have acquired some of the learning of the Egyptians, and even a knowledge of Magic is not improbable; but Justin has no authority for referring his foresight of the famine which he predicted, and provided for, to that art.—ED.

Jones, mention various magical ceremonies, which are permitted to be employed by the Brahmans, (chap. IX. p. 11.) There exists also in Hindostan, a belief not less ancient, and which likewise prevails in China; that, by the practice of certain austerities, the penitent acquires an invincible, and truly magical power over the elements, over men, and even over the powers of Heaven. The Hindoo Mythology in many places, represents penitents dictating laws, and inflicting punishments on the Supreme Divinity.

If, from the East, we carry our inquiry Westward and towards the North, we find Magic bearing equal marks of ascendancy, and of high antiquity. Under its name, "*Occult Science*," it was known to the Druids of Great Britain* and those of Gaul.† Odin, so soon as he had founded his religion in Scandinavia, was regarded there as the inventor of Magic.‡ Yet how many had preceded him! Voëleurs or Volveurs,§ priestesses well

* Plin. *Hist. Nat.* lib. XXX, cap. I.

† *Ibid.* lib. XVI, cap. XIV; lib. XXIV, cap. XI; lib. XXV. cap. IX; lib. XXIX, cap. III.

‡ Odin flourished about seventy years B.C., as a conqueror, a priest, and a monarch. He took advantage of the ignorance and credulity of his countrymen, the Scandinavians, to impose upon them the most absurd ideas of his supernatural power. He fell by his own hands; and in dying, promised eternal felicity to such of his followers as should lead a virtuous life, fight with intrepidity, and die in the field of battle.—ED.

§ The Gothic women were supposed to possess, in a peculiar degree, the faculty of looking into futurity; on which account, those amongst them who made profession of magic and divination, were every where received with respect and honour. On this fact, the *Vegtam's Kivitha*, or Descent of Odin, so admirably translated

versed in Magic, were associated with the ancient religion, which Odin attempted either to destroy or to remodel.* The first tales of Saxo Grammaticus, are connected with times greatly anterior to the age of Odin; there are few of them which do not contain a display of magical power.

Erudition and physiological criticisms have arrived at a point of perfection which renders it superfluous to discuss the question, whether a knowledge of the Occult Sciences was obtained by the Northern tribes, from the Greeks and Romans. There is sufficient reason for saying that they were not;† and there can be little doubt that the Greeks and Romans were but the imperfect scholars of

by Grey, the Poet, is founded. Odin wends his way to Niflheliar, the hell of the Goths, to consult Hela, the Goddess of Death, who, in life, had been one of these prophetesses.

> Right against the eastern gate,
> By the moss grown pile he sate;
> Where long of yore to sleep was laid
> The dust of the prophetic maid.

His object was to know the fate of his son, Balder, who was sick, and for whose life he was alarmed.—Ed.

* Munter, *On the most ancient religion of the North, before the time of Odin. Dissertation extraite par M. Depping, Mémoires de la Société des Antiquaires de France,* tome II, p. 230, 231.

† M. Tiedman has put this truth beyond a doubt. *See* his Prize Dissertation in 1787, crowned by the Academy of Göttingen. *De Quæstione quæ fuerit artium magicarum artium origo; quomodo illæ, ab Asiæ populis ad Græcos atque Romanos, atque ab his ab cæteras gentes sint propagatæ quibusque rationibus adducti fuerint ii qui, ad nostra usque tempora, easdem vel defenderent, vel oppugnarent?* (*Marpurg.* 4to. p. 94 et 95.) I have taken advantage more than once of this excellent Dissertation by Tiedman.

the sages of Egypt, of Asia, and of Hindostan. At what period the communications of the priests of the Ganges, with the Druids of Gaul, or the Scalds of Scandinavia took place, it is difficult to determine. He who can develop the origin of superstition, and of the human sciences, may be supposed also capable of informing us of the source of Magic. But in reference to the period in which Magic was assiduously studied, we are taught to believe that the sages attempted to govern nature by means of science, in the name of the principle of all good; and at another, by the art of working miracles through invocations of the evil powers. This distinction of equal and unequal powers, operating against one another, being sometimes productive of similar results, may be traced in the history of Zoroaster, and in that of the Hindoo Mythology; and such must always be the case where men of opposing interests are endowed with the same resources. Who were the evil genii? The Gods and the priests of rival religions. This omen, or that miracle, still in fact the same, was attributed to, by one set, to the intervention of Heaven, by another, to the interposition of the infernal demon; according as particular opinions prevailed, or according to the locality where they occurred.

To this direct opposition respecting the origin of miracles, alternately the objects of adoration and of abhorrence to the superstitious, was allied the unanimous concurrence as to their reality. The general assent of mankind, is said to be an irrefragable proof of truth;* and we may ask when was this assent ever

* *Consensus omnium populorum*, &c.

given with greater decision, than in favour of the existence of Magic, or the science of working miracles, by whatever name it is designated, by whatever title we adorn it? For thousands of years, civilized nations as well as the most barbarous tribes, if we except a few savage hordes, cherished, denounced, and endeavoured to protect themselves against the power, which they believed was granted to some men to change the common course of nature, through the medium of certain mysterious operations. We say the common course of nature, because it is important to remark that the doctrines of the Ancients regarding apparent miracles, and their generally admitted opinions, differ materially from those which the Moderns of the West appear to have formed for themselves, and according to which the attempt to explain a miracle is, in effect, to deny it. The theory that a miracle bespeaks a subversion, or a suspension of the laws of nature, may have been first admitted by fear or astonishment, and afterwards continued by ignorance and want of reflection; but, against this admission, both reason and scepticism are speedily armed. In this sense there exists no miracle. Under our very eyes a conjurer has apparently revived a man, who has been beheaded; and Aelian relates that Esculapius reunited the heart of a woman to her corpse, and restored to her both life and health.*

The Kurdes or *Ali-Oulahies*, who worship Ali, the son-in-law of Mahomet, as an incarnation of the Deity, ascribe a similar miracle to him; and it has

* Aelian, *De Nat. Animal*, lib. IX, cap. XXXIII.

been still more recently asserted, that a noble magician possessed the secret of performing it.* Admitted among the spectators, a philosopher would at first be suspicious of imposture. He would recollect how much the address of the mere juggler may affect. A juggler, very recently, indeed, exhibited to the public, the spectacle of apparently beheading a man, as he lay upon the stage, in such a manner as to produce very painful feelings in the spectators.† He displayed the severed head to convince the sceptical, and even invited them to touch it; to open the mouth which shut again of its own accord, and to examine the bleeding section of the neck at the extremity of the trunk. He afterwards withdrew a curtain; and, almost immediately, the living man re-appeared. Now, let us suppose the juggler to be above the suspicion of chicanery, the sceptic might say: "I presumed the thing to be impossible, but it appears that I was wrong, if my senses are not spell-bound by some insurmountable illusion. I admit that the fact, if once established, becomes a valuable acquisition to science; but before I can recognize a miracle in it, I must have the demonstration, that the thing could not occur, except God himself should reverse the order of his own fixed laws. At present, your proof

* Fromann, *Tract de Fascin.* &c., p. 635, 636. Rabelais, a philosopher, who under the mark of folly, has so many times exalted reason, seems to have had in his view this imposture. He displays to us Panurge completely curing one of his companions in arms, who had had his head cut off in battle. (*Pantagruel*, liv. II, chap. XXX).

† At Nancy, in 1829.

reaches no further, than what is afforded by my probably deceived sight, and your skilfulness."

By presuming the existence of a thing, on the ground of its possibility, the Ancients, inspired with religious gratitude, did not require that the apparent miracle which astonished them should be of a description to subvert the order of nature; every unexpected succour in urgent necessity was received by them as a direct benefit from the Gods; all that implied worth, prudence, or learning superior to that of ordinary men, was ascribed by them to an intimate participation in the divine essence, or at least to a superhuman inspiration, of which the Superior Being, who displayed these gifts, was the first to boast. In ancient Greece, the wonderful exploits of great men were rewarded by gaining for them the title of heroes, a term synonymous with that of *Demi-Gods*; and, also by conferring upon the hero of divine honours.

If the remembrance of this ancient and universal belief were preserved among us, we should censure less severely Homer and other poets of antiquity, for the repeated intervention of the Gods; the narrative of the poet expresses, in the clearest manner, the sentiment of the hero, who having been saved from imminent peril, or crowned by a signal victory, imputes these advantages to the God, who deigns to act as his guardian and to be his guide. Actuated by such a belief, which assimilates perfectly with our hypothesis, regarding the origin of civilization,* the religious man does not perceive any necessity

* *De la Civilisation*, liv. I, chap. VII.

for ascribing imposture to the miracles cited in favour of the revelations of other sects; he neither exposes himself to dangerous recriminations, nor does he listen to any retaliation with regard to his own creed, or to arguments tending to weaken that human testimony, on which is founded our faith in all these extraordinary events, which we have not personally witnessed. The priests and the Magi, of religions the most widely different, unhesitatingly acknowledged the assumed miracles performed by their adversaries. On several occasions, Zoroaster entered the lists with necromancers inimical to his new doctrines:—he did not deny their power, but he surpassed them in performing wonders; and he asserted that whilst they were executed by the power of the *Dews*, emanations of the principle of evil; he established the truth of his assertions by maintaining that he surpassed them only through the aid of the principle of good.*

* Anquetil, *Vie de Zoroaster*, *Zend-Avesta*, tome I, partie II, passim.

## CHAPTER VI.

Trial of Skill between the Thaumaturgists—It was admitted that the victor derived his Science from the Deity; but it was founded on Natural Philosophy—The proofs of which are derived: 1st. From the conduct of the Thaumaturgists—2nd. From their own assertions regarding Magic, that the Genii invoked by the Magicians, sometimes signified the Physical or Chemical agents accessory to the Occult Science; sometimes the men who cultivated that Science—3rd. The Magic of the Chaldeans embraced all the Occult Sciences.

WHEREVER divisions arose in the sacerdotal colleges, on account of interests involving power or glory, then combats of skill, analogous to those that constituted the triumphs of Zoroaster were exhibited; the attendant consequences were, the infusion of greater energy and the addition of increased lustre to the Occult Sciences. The multitude, at once the dupes of credulity and the slaves of fear, willingly revered as prodigies, mysterious omens, and miracles, the unusual phenomena of nature; but the Thaumaturgist had a more difficult task, when enlightened men were to be at the same time his rivals and his judges. The marvellous was then investigated with critical severity. The fleeting apparition

was not admitted as sufficient proof of the miracle, but a permanent effect was required. The miracle was to be displayed not by such dexterity as the ordinary necromancer could boast;* but by the most consummate skill. The prodigy was required to stand out in bold relief, and to display unusual characters; and, above all, it was requisite that the omen should have been predicted by the Thaumaturgist, and that it should happen at the precise moment indicated by his prophecy.†

Victorious in the trial of skill, conducted in accordance with these laws, the Thaumaturgist had no difficulty in establishing his claim to be considered as the disciple and interpreter of the Divinity. In short, that piety, which referred to divine inspiration every token of virtue in the mind, or in the deeds of man, naturally led to the particular study, acquirement, and practice of the Occult Sciences. The fruits of virtue, such as prudence, temperance, and courage, assimilate in degree, and, even between their most distinct extremes, admit of a parallel sufficiently palpable to exclude in general the necessity of imputing to them an extraneous origin; it was not so with the results of science, always surrounded by the marvellous, its connection or reference to arts purely human, was studiously concealed.

These considerations, if we regard them without prejudice, would, I believe, absolve the Greek and Roman authors from the censure of having too readily

* In the present day, the *Dalai-Lama* punishes the priests of his religion, who deceive the people by swallowing knives or vomiting flames.—Timkowski, *Voyage à Pékin*, tome I, p. 460.

† *Rabbi Meiraldabic. Semit. fedei.* lib. I. Gaulm. II. *De Vita et morte Mosis.* nota, p. 208—9.

admitted into their narrations, pretended miracles only worthy of contempt. They not only believed, but they felt an obligation imposed on them to transmit to posterity those which their own religion required them to hold in reverence, as well as those consecrated by the worship of other nations. In performing this duty, and knowing, or at least suspecting the connection of miracles, with a mysterious knowledge emanating as they believed from the Gods, they, by their fidelity in detailing such miracles, preserved the history of their faith from oblivion.

Charlatanism or jugglery certainly intermingled with the operations of the Thaumaturgists as we shall have occasion to prove. But the tricks of legerdemain, sometimes truly astounding, that are exhibited by modern impostors in our theatres and public places, are not unfrequently founded on chemical and physical facts connected with magnetism, galvanism, electricity, and chemistry; although the vulgar charlatan depends for the secret of these deceptions merely on the possession of recipes, which only teach him how to practice; but this does not entitle us to deny that the principles, whence such recipes are derived, should be ranked among the Sciences.

And this is what we discover in the temples as soon as the first glimmerings of historical light enable us to penetrate their obscurity. It is impossible to devote oneself to researches connected with the origin of the sciences, without perceiving that in the depth of these sanctuaries alone, one vast branch of ancient lore flourished; and that this one constituted an all-important part of the mysteries of religion. All miracles, which

cannot be referred to adroitness or imposture, were the fruits of this secret science; they were, in short, real experiments in physics. The processes by which their success was to be secured formed an essential part of sacerdotal education. Who, it may be asked, originally conceived and arranged these scientific formularies? Was it not the philosophical guardians of a code of doctrines recognized by their disciples under the name of Magic, Theurgic Philosophy,* and the Transcendental Science?

Why did Mahomet refuse to work miracles, declaring that the Almighty had denied to him the power? We may reply, because the Occult Science of the Thaumaturgists was unknown to him.† Why, in our own times, did Swedenborg surrounded by truly enlightened spectators, have recourse to a similar subterfuge, and affirm that his revelations being a sufficient miracle, those who refused to credit them, would not yield to the prodigies which they demanded as proofs of their truth?‡ We may also reply, because he was aware the time for miracles was over. It is said mankind are too enlightened to believe in them. Is not this in other terms, to say, that that which constitutes a secret science, reserved exclusively for some privileged beings, has now stepped

* Theurgy is defined, "the power of performing supernatural acts by lawful means, as by prayer to the Deity."—Ed.

† This is too severe a censure on Mahomet, who, if we fully concur in his condemnation as an impostor, cannot be charged with making his ignorance the reason for not extending his impostures. It is a charge for which the author has no authority.—Ed.

‡ Swedenborg. *Vera. Christ. Relat.* p. 846, 850. *De cœlo et inferno præfatio. Abrégé des ouvrages de Swedenborg*, par Daillant Latouche, 8vo. 1788, p. 37, 38, 293, 294.

into the vast domain of general science, accessible to all inquiring minds. Let us examine this opinion in its consequences. There can be no hesitation in admitting that four descriptions of prodigies narrated by the ancients cannot be rejected, and, therefore, that they ought at once to be acknowledged as facts.

1st. Arts, which come into common use, may pass for Divination or Magic, as long as the secret of displaying them is confined to a few individuals.

On Mount Larysium, in Laconia, the feast of Bacchus was celebrated in the commencement of spring; and ripe grapes were produced at this season to bear testimony to the power and beneficence of the God.* The priests of Bacchus were probably acquainted with the use of hot-houses and stoves.

Industrious men had carried the arts of working in iron into the Islands of Cyprus and of Rhodes; an ingenious allegory personified them under the name of *Telchines*, Children of the Sun the Father of Fire, and of Minerva the Goddess of the Arts.† Ignorance and Fear added to the terror with which those who first appeared in arms were regarded; and they were looked upon as magicians, whose very glance was to be guarded against.

* Pausanias, *Laconia*, cap. XXII.

† The name Telchines, was in reality derived from Telchinia, the ancient name of the Island of Crete, whence the Telchines originally emigrated to Rhodes. They were skilful workmen and the inventors of many useful arts, and were also the first who raised statues to the Gods. Ovid[a] bestows upon them the power of assuming various shapes, of fascinating all animals with their eyes, and of causing hail and rain to fall when they pleased. Jupiter, envious of their power, destroyed them by a deluge.—ED.

[a] *Metam.* VII. 365.

Acquainted with the treatment of metals, the Fins also figure, in the early poetry of Scandinavia, as sorcerer-dwarfs, dwelling in the depths of the mountains. Two dwarfs inhabiting the mountains of Kallova, and skilful in forging and fabricating arms, consented, on hard conditions, to initiate the blacksmith Wailand, into the secrets of their art; on which account he acquired much fame in the legends of the North for the excellency of the arms which he furnished to the warrior.*

In the esteem of men who knew only how to combat, the perfection of defensive armour and offensive weapons was so important, as to lead them to refer the art, which produced them, to supernatural agency. Enchanted arms, bucklers, cuirasses, helmets, on which every dart was blunted, every lance broken; swords which pierced and could dissever any suit of armour, do not only belong to the romances of Europe and of Asia, but they originated under the hammer of Vulcan; and their value was recited in the songs of Virgil, in the immortal verses of Homer, and also in the Sagas. Such arms were said to be fabricated by necromancers, or men who succeeded in obtaining the secrets of those wonder-workers.

2nd. The works of magic were circumscribed within the limits of science: and beyond these, ignorance was forced to supplicate its aid. Indeed, the biographer of Apollonius of Tyana, ridicules the senselessness of those, who expected through magic to gain the crown in the combats of the Circus; or to

* Depping, *Mémoires de la Société des Antiquaires de France*, tome v. p. 223.

ensure success in their love; or in their commercial speculations.*

3rd. In the trials of strength, when opposing interests were to be settled between those who were the guardians and depositaries of the Occult Science; as it was feared, that the limits of magical resource might be accidentally exposed to the profane and uninitiated, a tacit, formal compact existed among the Thaumaturgists themselves, in the observance of which the interest of all, even the most exasperated rivals, was involved.

The Greek mythology did not admit one Deity to interfere with, or subvert the schemes or operations of another: and the same reciprocal safe-guard may be traced through most of the fairy tales, which have been borrowed from early tradition and handed down to us by our ancestors. At an epoch greatly antecedent to the first Odin, the heroic history of the north speaks of the cruel fate of a female magician,† sentenced to a barbarous death by her whole tribe, for having instructed a Prince, whom she loved, in the means of controverting the schemes of a magician who was bent on his destruction. In a collection of wonderful tales of undoubted Hindoo origin‡, we find a female magician,

* Philostrat. *Vit. Apollon.* lib. VII. cap. XVI.

† Saxo Grammaticus, *Hist. dan.* lib. I.

‡ The Hindoo origin of the *Thousand and One Nights*, maintained by Hammer and Langlès, is denied by M. Silvestre de Sacy, who ascribes the composition of this collection to a Syrian Mussulman, of no earlier era than four centuries ago. (*Memoir read at the Académie des Inscriptions et des Belles-Lettres*, 31st July, 1829). That four hundred years ago, a compiler may have disse-

and one of the genii, strongly opposed to each other in their inclinations, yet bound, by a solemn treaty, restraining each from any contravention of their schemes; or from injuring the person of the other party. But, notwithstanding this agreement, they attempted to conquer each other, by other means; but, neither consenting to yield, they ended by fighting outright, throwing

minated a collection of such of these tales as are known in Arabia and in Syria, is possible; that he was a Mussulman, is evident from the pains he has taken to introduce Mussulmen, throughout the whole, with a total disregard of time or of country; but it may still be asked, is this writer the original author? I reply in the negative, because, 1st. Several of the narratives here brought together, may be found in the collections of the Hindoos, and of the Persians, which are of an earlier period, than the supposed date of this writer. 2nd. Judaism and Christianity were well known in Syria and in Arabia; and the disciples of both, but especially those of Christianity, must have played some part in tales invented within four hundred years, that is to say, nearly two centuries after the last of those famous Holy Wars, in which the standard of the Cross had more than once driven back the ensigns of Islamism, and yet we find no notice of other adversaries to the disciples of Mahomet than magicians and evil genii. 3rd. We retrace here the traditional existence in Asia, of pigmies; men who have their heads beneath their shoulders; and others having the head of a dog; traditions which some very ancient Greek authors had gathered from the East; but which had been subsequently, voted to oblivion, as absurd fables. 4th. Their Hindoo origin is evident; from the history of the Brahman Pad-Manaba, a favourite of the God Vishnou (Fourteenth Night). A Mussulman could never have invented a fable so contrary to his own creed. If the Syrian compiler introduced it without mutilation, it undoubtedly was admitted because the grounds of it were too familiar and too popular to risk any alteration.

about jets of burning matter, which killed and wounded several spectators, and finally put an end to both combatants.*

If, instead of beings endowed with pretended supernatural powers, we substitute men like ourselves; the process and the result would have proved nearly the same. They only differed in one respect, namely, in the blindness of their fury, at the risk of betraying a secret which it was their interest to preserve, they employed weapons prohibited among magicians, and exhibited themselves to the vulgar, mortally wounded by the same magical implements which their prudence should have reserved to terrify or to punish the uninitiated.

4th. In such struggles, the triumph of a Thaumaturgist might possibly appear to his adversary less decisive than it would to his partizans; particularly when the pretended miracle had been one of his own choosing, and one which he defied his rival to imitate: his antagonist might indeed recover his superiority by displaying, in his turn, a proof of his power which should secure to him the victory.

Nothing is better adapted to confirm these ideas than a glance at the manner in which the ancient magicians worked. Their art does not appear to have been the result of natural genius, nor assuredly of supernatural power; but of the knowledge of secrets painfully acquired and with difficulty preserved. To work magically, therefore, to conjure genii, or, so to invoke the Gods as to constrain them to apparent obedience, required very

* *Mille et une Nuits*, 4e *Nuit*, tome I. p. 318, (5e *Nuit*), ibid. p. 320—322.

extensive preparations; but over the nature and operation of these, the veil of mystery was thrown. Plants and animals, collected in secret, were in various ways combined and subjected to the action of fire; and scarcely one step was taken without the assistance of some formulary, or the consultation of books, the loss of which was almost equivalent to the loss of all magic power. Such were the sources of the power of the greater number of the Thaumaturgists, who were truly scholars of natural philosophy, and who were forced continually to seek in their sacred volumes the prescriptions, without which they could neither properly work out their charms nor display their delusions.

Traces of the existence of these books are found among a people fallen, in the present age, into the most lamentable barbarism, but whose traditions are connected with a very ancient and probably an advanced state of civilization.* The Baschkirs believe that the *black books*, the text of which they allege originated in hell, give to their possessor, provided he is capable of interpreting them, an absolute empire over nature and demons. These books, together with the power which they conferred, generally descended by inheritance to the individual among the pupils of their possessor, whom he judged most worthy to succeed him.† Sound works on physics and on chemistry, as applied to the arts,

* The Baschkirs, like the Laplanders, the Bouraetes, the Ostiaks, and the Samoiëdes have, from time immemorial, made use of hereditary family names. (E. Salverte, *Essai sur les Noms d'Hommes, de Peuples, et de Lieux*, tome 1. p. 143).

† *Annalen der Erd-, Völker- und Staaten-Kunde.*

might replace, with advantage the magic books of the Baschkirs: but we are still not much in the advance of the time, in which certain persons, indifferent as to either the enlightenment or the ignorance of mankind, would have assumed that such works could only emanate from the principle of evil. Let us now, however, consult the Thaumaturgists themselves on the nature of their art.

Apollonius* denied that he was of the number of the magicians: they are, says he, only the artizans of miracles. They are often stranded in their attempts; but when they fail, they acknowledge that they have neglected to employ such a substance, or to burn such another. Inexpert charlatans, who permit the mechanism of their miracles to be seen! Apollonius himself boasted that his science was the gift of God, the reward of his piety, his self-denial, and his austerity: and in order to produce miraculous effects, he needed neither preparations nor sacrifice. His presumption, which equalled that of the Hindoo penitents, merely proves that he was a more accomplished Thaumaturgist, and one who could boast of a higher knowledge of his art than those whom he depreciated. What he says of the ordinary Thaumaturgist confirms our former assumption, that the sect were mere labourers in natural philosophy.

Chaerémon, a priest, and sacred writer (*scriba sacer*) taught the art of invoking the Gods, so as to force them to perform the miracles demanded of them. Porphyry,†

* Philostrat. *vit. Apollon.* lib. I. cap. II.

† Porphyry was born at Tyre in the year 233. He became a pupil of Origen, and afterwards of Longinus, who named him Porphyrius, implying "man in purple," or adorned with a kingly

in refuting Chaerémon, affirms that the Gods themselves taught men the ceremonies and the spells by which they might be conjured.* But this is merely the attack of one school upon another; a strife of words. The beings who obeyed the invocation were not those who dictated the rites by which the invocation was to be expressed. Iamblicus enables us to recognize a distinction between them.

In the attempt to explain the manner by which a man may acquire an influence over the genii, Iamblicus arranges these deities in two divisions; the one higher divinities, from whom nothing could be obtained, but through prayer and the practice of virtue: these were the Gods of Porphyry. The other subordinate, corresponding to the obedient deities of Chaerémon, and they are thus described by the Theurgist, "spirits devoid of reason or discernment, and of intelligence; and only brought forward for particular purposes, although gifted with power in some measure greater than that which man possesses; yet, they are forced to exercise their peculiar functions at his command, because he is endowed with reason and discernment, of which they are devoid; and which enable him to ascertain, and to amalgamate the properties of various existences."† Let

robe. His original name was *Melech*, which is the Syrian for King. He died at Rome, A.D. 304, towards the conclusion of the reign of Diocletian. He is chiefly celebrated for his writings against Christianity.—ED.

* Euseb. *Præp. Evang.* lib. v. cap. VIII. IX. X. XI.

† *Iamblicus. De Mysteriis*, cap. XXXI. *Invocationes et opera hominum adversus spiritus*. . . "Est etiam aliud genus spirituum. . . *indiscretum et inconsideratum*, quod *unam* numero *potentiam* est

us suppose that we are attending a lecture on chemistry and natural philosophy. "There exist," the professor may say, "substances capable of producing extraordinary results, incapable of being effected by man, when assisted only by his natural faculties; such as eliciting sparks from ice, or the production of ice in a heated atmosphere: effects which have been produced although the substances displaying them operate without design and without discernment. Blind agents in themselves, they become miraculous instruments of power in the hands of the man, who, by the deductions of science, possesses the secret of skilfully applying their properties, and making them subservient to his purposes."* The

sortitum... unde *unum uni* tantum operi addictum est... Jussa et imperia violenta diriguntur ad spiritus *nec utentes propriâ ratione, nec judicii* discretionisque principium *possidentes.* Cum enim cogitatio nostra habeat ratiocinandi, naturam atque discernendi quâ res ratione se habet... spiritibus imperare solet, *non utentibus ratione* et ad *unam tantum actionem* determinatis... imperat, quia natura nostra intellectualis præstantior est quam *intellectu carens,* et si illud in mundo latiorem habeat actionem."

* At the meeting of the British Association, at Cambridge, in June, 1845, Professor Butigny amused the ladies by producing ice in a vessel at a glowing red heat. This was performed by making a deep platinum capsule red-hot; and, at the same moment, liquid sulphurous acid, which had been preserved in the liquid state by a freezing mixture, and some water, were poured into the vessel. The rapid evaporation of the sulphurous acid during its volatilization when it entered into ebullition, a state which takes place at the freezing point, produced such an intense degree of cold, that a large lump of ice was immediately formed; and, being thrown out of the red-hot vessel, was handed round to the company in the section. How powerful would have been the influence of such an experiment, if asserted to be a miracle, in a Pagan sanctuary.—Ed.

professor may thus display with precision, latent influences rendered active in the service of chemistry and of philosophy; and all that he can say of them has been said by Iamblicus, touching the genii of the second order.

The professor may then continue: — "When an ignorant person tries an experiment, without closely following processes which are put down for him, he will assuredly fail, if the employment of one only of the substances prescribed by science is neglected." If for the words ignorant persons, experiment, process, and substances, we substitute profane, religious observances, rites, divinities, or genii, the professor will have spoken as if he had translated two passages from Iamblicus, on the course to be followed in working miracles.*

Among the genii obedient to magical power, we are informed that some were to be conjured in the Egyptian, some in the Persian language.† Is not this a demonstration that the ceremonies were preserved in the formulary of the philosophers, which each temple preserved in their sacred language, so as to make them practical. The Egyptian priests worked a miracle by a process of which the Persian priests were ignorant; while the latter either worked the same miracle by a different process, or set up another miracle equally brilliant in opposition to it.

To the mind that revolts at the idea of exalting physical agents into supernatural powers, let us exhibit

* *Quando* profani *tractant sacra contra* ritus, *frustratur eventus. Iamblich. De Mysteriis*, cap. xxx. "*Uno praetermisso* numine sine ritu, *communis ipsa* Religio *finem non habet*," ibid. cap. xxxiii.

† Origen, *contr. Cels.* lib. i.

the divination based on the most simple operations of industry. What among the Romans, the disciples of those Etruscans who derived their original civilization from religion, and ascribed to it their entire existence, were the Gods to whom the Flamen appealed, at the feast celebrated in honour of Terra, the Earth, and the Goddess of Agriculture? We recognize them by their names. The first was *Vervator*, implying the ploughing of the fallow land; the second, *Reparator*, labour; the third, *Imporcitor*, the sowing of the seed; the fourth, *Insitor*, the operation which covers the seed; the fifth, *Obarator*, harmony; the sixth, *Occator*, the weeding with the hoe; and the seventh, *Sarritor*, the second weeding, and so on.* The priest only enumerated the operations of agriculture, and superstition converted them into divinities. The same superstition, regarded as a supernatural being the man whose talents produced works above the ordinary capacity of his fellow mortals.

The art of treating metals was deified under the name of Vulcan. The Telchines, the earliest artificers in iron known among the Greeks, were at first regarded as magicians, but subsequently looked upon as demi gods, genii, and malevolent demons. The Fifes, (fairies, fayes, or genii)† were famed in Scotland as excelling in

* *Servius in Virgil. Georgic.* lib. 1. vers. 21. et seq. et *Varro de Re rust.* lib. 1. cap. 1. The names of the other divinities were *Subruncinator, Messor, Convector, Conditor, Promitor.* The improvement of the soil was also under a divinity named *Sterquilinius*, or, *Stercilinius.*

† There is no part of the world, and no portion of the history of the human race, that is devoid of superstitious observances;

art.* And to a similar belief we, probably, owe the proverbial expression 'to work like fayes.' "The

and the predilection for the wild, the wonderful, and the terrible may be regarded as universal. Even in the present day, when Science and a rational Theology have dissipated, in a great degree, these illusions, still the vestiges of them remain, and impress sentiments which although they are endeavoured to be concealed, yet, are strongly felt.

No subject would be more interesting than an inquiry into the origin of the superstitions of uncivilized tribes: but it is of too comprehensive a character to be entered upon in this place; we shall, therefore, content ourselves with tracing, to their birth place, a few of the most popular delusions in the olden times of our own country. The Fayes and Fairies are evidently of Scandinavian origin, although the name of Fairy, is supposed to be derived from, or rather a modification of the Persian *Peri*, an imaginary benevolent being, whose province it was to guard men from the maledictions of evil spirits; but with more probability it may be referred to the Gothic *Fagur*, as the term Elves is from *Alfa*, the general appellation for the whole tribe. If this derivation of the name of Fairy be admitted, we may date the commencement of the popular belief in British Fairies to the period of the Danish conquest. They were supposed to be diminutive aerial beings, beautiful, lively, and beneficent in their intercourse with mortals,[a] inhabiting a region called Fairy [Land

* *Suidas* verbo *Telchines*. See the article on Telchines in the *Dictionnaires de la Fable de Noël et de Chompré et Millin*.—Men who attached to the worship of nature, or the Goddess of the Earth, (Cybêle, Magna Mater, etc.), introduced into many places the art of working in metals; and were known in different countries under different names—Telchines, Curates, Idæan Dactyles, Corybantes, etc.; but all pertained to the same priesthood, and transmitted their knowledge from generation to generation. It is on this account, that ancient writers sometimes confound them, and at other times assert that some were the ancestors of others. *Diod. Sic. Strabo. Pausanius.*

[a] *Remains of Kirk White*, vol. i. p. 34.

gnomes," say the Cabalists, "are people of small stature, guardians of hidden treasures, of mines, and of

Land, *Alf-heinner;* commonly appearing on earth at intervals—when they left traces of their visits, in beautiful green-rings, where the dewy sward had been trodden in their moonlight dances. The investigations of science have traced these rings to a species of fungus, Agaricus *oreades;* but imagination still leads us, willingly, back to the traditional appearances of these diminutive beings in the train of their Queen; and, whilst in the mind's eye, we see her asleep, cradled on a bed of violets, ever canopied

"With sweet musk roses and with eglantine,"

we also behold her tiny followers dancing away the midnight hours to the sound of the most enchanting music. In Scotland the existence of Fairies was believed in the seventeenth century; and in some places in the Highlands, the belief is not yet extinct.[a] No idea is attempted to be given of the situation of the "countree of Fairie;" but the favourite haunts of its people on earth are green hills romantic glens, and inaccessible water-falls. At a linn, or water-fall on the river Crichup in Dumfriesshire, is a cell or cave, called the Elf's Kirk, where the fairy people, "the imaginary inhabitants of the linn were supposed to hold their meetings."[b] So late as 1586, a woman named Alison Pearson, was tried, convicted and burnt, for holding intercourse with and visiting her Majesty of Fairë land. The indictment runs thus: "for hanting and repairing with the gude neighbours, and Queene of Elfland, thir divers years by-past, as she had confest; and that she had friends in that court, which were of her own blude, who had gude acquaintance of the Queene of Elfland; and that she was seven years ill handled in the court of Elfland." Can a stronger proof be adduced of the awful abuse of power into which mortals may be betrayed, when the mind is enfeebled by credulity and superstition?

[One

[a] Sinclair's Statistical account of Scotland, vol. XIII. p. 243.

[b] Scott's Minstrelsy of the Scottish Border, vol. II. p. 206.

precious stones: they are an ingenious race, friendly to mankind, and providing the children of the wise with

One of the tricks of the Scottish elves, for they were not always beneficent, was stealing new-born infants and replacing them with monsters. These thefts were committed in order to enable them to pay tithe to the Devil with the stolen child instead of one of their own brood, a tribute which they were obliged to pay every seventh year. A beautiful child, of Caerlaveroc, in Nithsdale, was thus changed, on the second day of its birth, and its place supplied by a hideous elf. The servant to whom the changeling was entrusted in the absence of her mistress, however, discovered the trick. She could not perform her other work owing to the fretfulness of the changeling; but the elf, hearing her complain, started up and performed all her work, and on her mistresses approach returned to to the cradle. She told her mistress her discovery, and at the same time said: 'I'll wirk a pirn for the wee diel.' With this intention she barred every outlet in the room; and, when the embers were glowing, undressed the elf, and threw it upon the fire. It uttered the wildest and most piercing yells, and in a moment the fairies were heard moaning, and rattling at the window boards and the door. 'In the name o'God bring back the bairn,' cried the servant:—the window flew up; the earthly child was laid unharmed on the mother's lap, while its grisly substitute flew up the chimney with a loud laugh."[a]

Another description of Scottish elves was the *Brownies*; a race of beings both diminutive and gigantic, benevolent and knavish. The former was the most common, and are described by Mr. Cromek[b] as, "small of stature, covered with short curly hair, with brown matted locks, and clad in a brown mantle which reached to the knee, with a hood of the same colour." They were fond of sweet cream, honey, and other dainties, portions of all of which were generally left for them, as if by accident, in some part of the dwelling; the brownies being forbidden by the higher powers to accept of wages [or

[a] Cromek's Remains of Nithsdale and Galloway Song, p 308.

[b] Cromek's Remains, p. 330, et seq.

all the money they require."* Credulity peopled the mines in several countries of Europe with genii; they

or bribes. They, nevertheless, revenged themselves when intentionally neglected, and they could

"Bootless make the breathless housewife churn;
And sometimes make the drink to bear no barm."

This brownie was the same kind of sprite as the goblin-groom of the English, "who," says Dr. Hibbert, "was an inmate of many houses so late as the seventeenth century;"[a] and also the same as a sprite named *Putscet*, whom the Samogitæ, a people on the shores of the Baltic—who remained idolaters in the fifteenth century—invoked to live with them; and for whom, according to Mr. Douce,[b] a table, covered with bread, butter, cheese, and ale, was placed every night in the barn; and which, we may venture to add, was regularly cleared before morning. The northern nations regarded these sprites as the souls of men of libertine habits, doomed to wander on the earth, and to labour for mankind, for a certain time, as a punishment of their crimes.[c] In Orkney and Shetland, the belief in such sprites continued even in the eighteenth century. "A domestic spirit of this kind," says Dr. Hibbert, "was the inmate of the house of Ollaberry about a century ago."

In Shetland we find numerous traditions of the *Duergar*, or Scandinavian dwarfs, under the name of Trows. They are stated to be malevolent beings, partaking of the nature of men in having material bodies, and of the nature of spirits in the power of making themselves invisible. Besides the name *Trows*, they are also called familiarly *guide folk;* and are still believed to exist. They live on beef and mutton, and drink milk like mortals; are much addicted to music and dancing; and are great quacks, [compounding

[a] Hibbert's *Description of the Shetland Islands*, p. 467.
[b] *Illustrations of Shakespeare.*
[c] Olaus Magnus.

* *Revue Encyclopédique*, tome xxxi. p. 714. *Le Comte de Cabalis, ou Entretiens sur les Sciences secrètes.* Second entretien, pages 48 et 49.

were known under the appearance of small, but robust brown men, always prepared to punish the indiscretion of the profane person that intruded on their labours. All that has been said of these genii, or gnomes, might hold good of the miners themselves, at a time when their art, pursued in obscurity, was exclusively destined to increase the riches, and maintain the power of the enlightened classes. But the veil of allegory, which graced the tales* of the East, is now rent, and the labourers in the iron mines are no longer the genii of these subterranean workshops. Sensitive as they are described to have been to the kindness of Princes, who

compounding many salves, and performing many special miraculous cures. Like the English fairies, they are also addicted to the stealing of children, and leaving their own unholy progeny in their places.

" While around the thoughtless matrons sleep,
Soft o'er the floor the treacherous fairies creep,
And bear the smiling infant far away :
How starts the nurse, when, for the lovely child,
She sees at dawn a gaping idiot stare. [a]

It is melancholy to reflect that these superstitions still exist in any portion of the British Empire. That they were not expelled when Christianity was introduced into Shetland, is attributed by Dr. Hibbert, to their being " conveniently subservient to the office of exorcism, which constituted a lucrative part of the emoluments of the inferior Catholic clergy, with which Orkney and Shetland were at one time overrun."[b] The whole history of these imaginary beings is, indeed, a melancholy picture of human reason degraded to a state of the most abject slavery beneath the tyranny of Credulity and Superstition.—Ed.

[a] Erskine's additions to Collins' *Ode on the Superstitions of the Highlands.*

[b] Hibbert's *Scotland,* p. 451.

* *Thousand and one Nights.*

instituted festivals in their honour, they no longer hasten to their aid when their necessities are great, nor can they now be saved by their grateful intervention.

We may sometimes trace the means by which such metamorphoses were accomplished.* Agamede, in Homer, implies a woman devoted to the good of others, and intimately acquainted with the properties of all medicinal herbs. Orpheus, a wise emissary of the Gods,† who, by the charms of metrical verse, and the harmony of language, drew around him the rude people whom he came to civilize, as well as the wild beasts of the forest.‡ The historians, quoted by Diodorus, represent the mysterious arts of Circe and Medea as purely natural,§ especially where their knowledge rested on the efficacy of poisons and their antidotes: but mythology has, nevertheless, preserved the reputation of Æetes' daughter as an invincible magician. The poets, who succeeded Homer, represent Orpheus as being versed in Magic: ‖ and Theocritus describes Agamede as the rival of Circe and Medea¶ in the magical arts.

The Egyptian priests, who ranked next in order to

* Homer. *Odyss.* lib. IV. v. 226. Iliad. lib. XI. v. 737—739.

† Horat. *De Art. Poet.* vers. 390—393.

‡ Pausanius asserts that he was deeply versed in magic. Many, among whom Aristotle is placed by Cicero, doubted altogether the existence of Orpheus: but there are many reasons for believing that such a person existed, without crediting the absurd legends interwoven with the traditions concerning him.—Ed.

§ Diod. Sic. lib. II. cap. I. et VI.

‖ Euripid. *Iphigen. in Aulid.* vers. 11, 12. *Cyclop.* vers. 642.

¶ Theocrit. *Idyll.* II. vers. 15—16.

the sovereign Pontiff, are called magicians in the ordinary translations of Exodus, while their arts are styled enchantments. Mr. Drummond,* an archæologist, who has made deep researches into the language and history of the Hebrews, considers these interpretations as incorrect: according to him the text implies secret, not magical working; and the title of the priests *chartomi*, derived from a word which signifies to engrave hieroglyphics, expresses nothing further than the knowledge they possessed of hieroglyphics in general.

Who, we may inquire, were the prophets consulted by Pythagoras at Sidon; and from whom he received sacred instructions? They were the descendants of Mochus,† the physiologist, a sage, deeply versed in the phenomena of nature; and the inheritors of the knowledge of his science. If Justin does not scruple to admit the reality of the greater proportion of the miracles ascribed to Apollonius of Tyana, he could have observed in them only dazzling proofs of the noble science of the Thaumaturgists. ‡

In conclusion, the learned Moses Maimonides § has demonstrated that the ground-work of Chaldean Magic lay substantially in an extensive acquaintance with the resources of the animal, vegetable, and mineral kingdoms. One object of such knowledge was to acquire the power of indicating the propitious time when the magical results

* Mr. Drummond. *Memoir on the Antiquity of the Zodiacs of Esneh and Dendera*, 8vo. London, 1823, pages 19, 21.

† He was a native of Sidon, and is regarded as the founder of the philosophy of anatomy.—Ed.

‡ S. Justin. *Quest. et Repond. ad Orthodox*, Quest. 24.

§ Moses Maimonides. *More Nevochim*. lib. III. cap. XXXVII.

might be expected; that is to say, the moment in which the season, the temperature, and the state of the atmosphere, gave a reasonable hope of success, in working by means of physical and chemical agents; or which aided the learned observer in predicting natural phenomena, that could not be foreseen by the multitude. Introduced into the sanctuary of the Occult Science, the mystery of Magic vanishes: we see in it only the school where the various branches of natural science were taught; and we admit in their literal sense all the assertions of mythology and of history, regarding men and women invested by the talented founders with the possession of their secret, and who not unfrequently became superior to their masters. To this end, it was sufficient, after having submitted to trials imposed with a view of insuring discretion, that the pupil should give himself up to the zealous study of the Secret Science; and his perseverance and capacity only could enable him to extend its limits; the advantages of which he afterwards reserved to himself, or partially communicated to the objects of his particular regard.

## CHAPTER VII.

Errors mingled with the positive truths of Science—These have their origin sometimes in deliberate imposture, sometimes in the mystery in which the Occult Science is involved—Impostures exaggerated—Pretension of the Thaumaturgists; Charlatanism; Jugglery; Tricks of Legerdemain more or less palpable—Chance and the facility with which its results may be controlled—Oracles conjoined with equivocation and imposture, to insure their fulfilment by natural means, such as Ventriloquism, &c.; and by finally exact, but very simple observations.

HAD the Thaumaturgists cultivated science with the noble ambition of becoming themselves enlightened, and of enlightening their fellow-creatures, we should have only to look into their works for the vestiges of doctrines, no doubt incomplete, but pure, and free from any base alloy. It is not so. Their whole aim was to gain power, veneration, and an obedience that knew no bounds; hence, every thing that favoured this end was deemed legitimate: mere sleight of hand, fraud, and imposture were resorted to, as well as the practice of the most elevated science.

After having conquered, it was necessary to insure the possession of the sceptre: and it was deemed essential, for this purpose, to exhibit every where the semblance of supernatural power, and to conceal the instrumentality of man, even when the display of this empire of genius over nature

would have redounded to his glory. An inviolable secrecy enveloped the principles of the science; a particular language; figurative expressions; emblems, and allegories; threw a veil over even its minor details. The desire to solve these sacred enigmas gave rise among the profane to a thousand extravagant conjectures; the dissemination of which, instead of being checked, was favoured by the Thaumaturgists. They regarded them as so many guarantees of the impenetrability of their secrets; and we shall convince our readers that the absurd opinions originating from this source, were not the only evils which this conduct entailed upon the human mind.

We shall consider in succession these two sources of error: and demonstrate that their consequences form a part of the history of civilization as well as that of magic.

The present operates less forcibly on the human mind than the future. The former, positive and limited in its nature, confines our belief to that which is real; the latter, vague and uncertain, leaves it open to the unrestrained dreams of fear, of hope, and of imagination. The Thaumaturgist, therefore, could easily promise, and inspire a belief of the fulfilment of wonders, which he had no hope of realizing.

Nothing can be more absurd than the details connected with the renewal of the youth of Eson,* by the enchantments of Medea; yet, at an early period the Greeks, the Arabs, and even the Hebrews, believed in the possibility of this phenomenon.

* Eson, was the father of Jason, the husband of Medea. Owing to his age and infirmities, he was unable to assist at the rejoicing for the victory of the Argonauts; but Medea, says the tradition,

Credulity, in assigning no limits to the power of the Thaumaturgists, forced them occasionally to refuse, without compromising themselves, to perform impossible miracles. A Cilician invoked Æsculapius in his temple, in the expectation that by rich presents, pompous sacrifices, and magnificent promises, he might move the God to restore an eye which he had lost. He was unsuccessful, because, says Appollonius of Tyana, who was well acquainted with the subterfuges which were commonly resorted to in the temples, he was unworthy of the favour he besought; and the loss of his eye was the just punishment of an incestuous adulterer.*

Even when the required miracle did not surpass the boundaries of science; it was still necessary in performing it, so to occupy the attention of the spectator, that his observation might be withdrawn from the mechanism of the operation, or from the embarrassment which the Thaumaturgist experienced, when the result was retarded. This species of artifice, so familiar to modern jugglers, was no less so to the magicians of old. What the former obtains by address, or ingenious raillery, the latter insured by the aid of cabalistic rites, well adapted to inspire reverence and awe. The third part of the magic of the Chaldeans belonged entirely to that description of charlatanism, which consists in the use of gestures, postures, and mysterious speeches, as by-play; and which formed an accompaniment to the proceedings of the Thaumaturgist well calculated to mis-

at the request of his son, restored him to the vigour and sprightliness of youth, by drawing all the blood from his veins, and filling them again with the juices of certain herbs.—Ed.

* Philostrat. *vita Apollon*, lib. i. cap. vii.

lead.* The priests of Baal, in their unequal emulation, with the Prophet Elijah, made incisions in their bodies which were perhaps more visible than deep.† The Theurgists of Greece and of Italy, threatened those genii who were too slow in obeying them, that they would invoke them by a name which they dreaded.‡ Whatever were the means, the aim was to gain time, and to distract attention: for, either penetrated with compassion or filled with awe, the spectators were thus induced to regard with less distrust the practices necessary for the consummation of the pretended miracle.

But we have already observed, that similar difficulties were confined to the public trials of skill among the Thaumaturgists: on every other occasion the credulity was in advance of the miracle. How many tales have we for example of the marks of blood, preserved for centuries, to bear testimony to a crime, or a remarkable judgment! It is related, by some travellers, who, in 1815, visited the room in which David Rizzio was stabbed, that the guide, in pointing to the stains of his blood, took particular care to inform them the boards were stained anew every year.§ At Blois likewise,

* Moses Maimonides, *More Nevochim*, lib. III. cap. XXXVII.

† 1 *Kings*, chap. XVIII. v. 28. "And they cried aloud, and cut themselves after their manner with knives and lances. Till the blood gushed out upon them."

‡ Lucan. *Pharsal.* lib. VI. vers. 745. Stat. *Thebaid*, lib. IV. vers. 156.

§ *Voyage inédit en Angleterre en* 1815 et 1816. *Bibliothéque Universelle, Littérature.* tome VII. p. 363.—The murder of Rizzio, who was secretary to Mary, Queen of Scots, was committed by Lord Ruthven and his accomplices, at the door of the private apartment or cabinet of the Queen, in Holyrood House, on the

during the annual fair, the warder of the castle causes blood to be sprinkled on the floor of the room, where the Duke of Guise was murdered; and this is exhibited to the curious, as the blood of this martyr of the League. It is scarcely necessary to say that the histories of all such relics are alike.

The head of a statue, struck by lightning, fell into the bed of the Tiber; the augurs indicated the spot where it might be found, and the event confirmed their prediction.* Without doubt, they had previously taken infallible measures to ascertain the fact; and had pursued the same measures, which at various periods, in other countries have discovered to us so many holy, and curious images, in grottoes, in forests, and in the channels of rivers.† In short, we might refer to what happened a very short time since, when a rabbit, a dog, and two oxen, revealed to the adoration of the Portuguese, a Madonna, to whom soon afterwards solemn thanks were offered up for the destruction of men, who would have rescued the people from the bondage of ignorance and of fanaticism. In

9th of March, 1566. The blood stains, renewed as described in the text, are displayed to every visitor of that palace.—Ed.

* Cicer. *De Divinat.* lib. 1. § 10.

† Swinburn (*Travels in the Two Sicilies,* vol. 1. p. 199), supposes, that during the invasions of the Saracens into Italy, the Christian fugitives frequently concealed the objects of their devotion in almost inaccessible places, where after a certain lapse of time, they were accidentally discovered. But in every part of Christian Europe, in countries never subject to the invasions of the Mussulman, in dark ages, crucifixes, statues and images have been found, which have never failed, subsequently, to work miracles. Let us not impute to chance, too often repeated, that

1822, an attempt to unveil imposture, could not be made but at the risk of life.*

At Temersa, a virgin was annually sacrificed to the manes of Lybas. Euthymus, the wrestler, desirous of putting an end to this barbarity, had the courage to challenge the spectral Lybas; who presented himself, black, horrible, and clothed with the skin of a wolf. The intrepid wrestler, however, overcame the spectre, who in his rage, at being defeated threw himself into the sea.† There is little doubt, that a priest, disguised as a satyr, was the actor in this scene, and that he was unable to survive his defeat. We are told that the conqueror also soon afterwards disappeared, and the manner of his death remained a profound secret. The colleagues of the spectre were probably better informed on this point than the public.

Sinan Raschid-Eddin,‡ chief of the Bathenians or Ishmaelites of Syria, concealed one of his pupils in a

which results from the machinations of a subtle and persevering policy; and let us remember that other religions have enjoined on their disciples the worship of newly discovered relics. Thus we are told, that at Patras, adoration was offered to a statue of Venus, which had been recovered from the sea by some fishermen in the act of dragging their nets. (Pausanias, *Achaic.* c. 21). The fishermen of Methymna also drew to land, a head sculptured from the wood of the olive tree; the oracle commanded the Methymneans to worship this head under the name of Bacchus Cephallenianus, (Pausanias, *Phocic.* cap. 19).

* Mrs. Marianna Baillie, *A Sketch of the Manners and Customs of Portugal,* &c., London, 1824. *Nouvelles Annales des Voyages,* tome xxx. p. 405.

† Pausanias, *Eliac.* lib. II. cap. VI.

‡ *Mines de l'Orient,* tome IV. p. 377. A fragment translated from original authors, by M. Hammer, who died in 1192.

cavity, permitting the head only to appear, which being surrounded by a disk of bronze, having the appearance of a basin filled with blood, seemed to be the head of a man recently decapitated.

Uncovering it before his disciples, he commanded the deceased to relate what he had experienced, since he ceased to live. The well-trained interlocutor delivered, according to previous instruction, a brilliant account of the joys of Heaven, declaring at the same time, that he would rather continue to experience them, than be again recalled to life; and dictated, as the only security for their future enjoyment, an implicit obedience to the will and decrees of Sinan Raschid-Eddin. This scene redoubled the enthusiasm, the devotion, and the fanaticism of the audience. After their departure, Sinan put his accomplice to death, in order to secure the secret of his miracle.

But for what purpose, it may be asked, do we thus multiply instances of fraud, so palpable, that the most adroit or subtle, scarcely deserves the name of jugglery? I reply, that if the art of imposing on the senses, in spite of incredulity and a scrutinizing observation, has been made subservient to the interest, the cupidity, or the policy of men who trade in the credulity of their fellow creatures, the art of the juggler is not alien to our subject. That it has been thus instrumental, is proved, by its existence in all ages, with every refinement that could possibly aid or second it, by inspiring awe, or commanding astonishment. Thus, it has always flourished in Hindostan; and to all the other characteristics, which attest the Hindoo origin of the Bohemian

gypsies (Zingari) may be added their perfection in tricks of every kind.*

That it has been so subservient in all countries, we may infer from the fact, that the apparent miracles with which it astounds the unenlightened, have held, universally, a prominent place in the works of pretenders to supernatural influence. The examples which we shall hereafter bring under consideration will afford sufficient proof of this being the case among civilized people; but at present we shall confine our attention to those magicians, who in the centre of a half savage horde, united the functions of priests, magistrates and physicians. These magicians among the Osages, owed their influence principally to the extraordinary nature of their deceptions. Some of them plunged large knives into their throats, and the blood flowing profusely left no doubt of the apparent reality of the wounds.† Can we, therefore, wonder that among the aborigines of America, the utmost respect is inspired for the man, whose power can prevent the smallest trace of so frightful a wound. European conjurors will go through the

* The term Zingari was one of the many appellations by which these extraordinary wanderers are known. In Holland they were called *Heydens;* in Hungary *Pharachites;* in Spain and Portugal, *Gitanos;* in Germany, *Tzianys;* and in Turkey, *Tschingenes.* The original country of these wanderers is still undetermined, although the similarity of their language with Sanscrit gives a colouring of probability to the opinion that they came originally from Hindostan. My friend, Major Moor, says that he showed two gipsy women, at different times, a knife, and asked what they called it? The reply was "*Churу;*" exactly as half the inhabitants of the great Indian range would have answered—from *Indus* to the *Brahmaputra.*" *Oriental Fragments,* p. 351.—Ed.

† *Nouvelles Annales des Voyages,* tome xxxv. p. 263.

same process for our amusement; and persons who do not desire to pass for jugglers have carried on similar deceptions, though with a different intention. It is attested by a priest, who witnessed the fact, that in Italy penitents have appeared to inflict upon themselves, with scourges of iron, the most cruel flagellations, without in reality, suffering any injury.*

In the fifteenth century, at the solemnization of the excommunication of the Hussites, in the churches of Bohemia, the lighted tapers were spontaneously extinguished at the precise moment in which the priest concluded the ceremony of excommunication; and this deception was regarded by the awe-struck congregation, as a clear manifestation of divine power.†

To expose the manner in which sacerdotal policy can ren-

* Le P. Labat, *Voyages d'Espagne et d'Italie*, tome VII. p. 31—32.

† Joachimi Camerarii... *De Ecclesiis fratrum in Bohemia et Moravia*, p. 71.—To the above instance of credulity we may add the following: "On the summit of the Ochsenkopf, in the Fichtel Gebirge, immediately opposite to the church tower of Bischofsgrun, is supposed to be seated a Geister-Kirche, (a church for supernatural beings), adorned with incalculable wealth. The entrance to it is through the fissure of a rock, which, it is said, begins to open when the church-bell at Bischhofsgrun rings; it is wide open when the priest begins to read the Gospel of the day, and it closes with a crash as soon as he has finished. Although this statement might be easily refuted, yet, none dare attempt the refutation; and the report is current that several persons now living at Bischhofsgrun have entered the temple, and have taken away some of the treasures; but they would scarcely be safe if they were to talk of it."[a] Such is the ignorance, superstition, and credulity of the population of Fichtel Gebirge.—Ed.

[a] *Edinburgh Review*, vol. LXXXII. p. 351.

der an art, in appearance futile, serviceable to its own purpose, we have only to select a few examples. In the judicial trial by cold water, everything depended on the manner of binding the accused: the ligatures might be arranged, so as to cause him either to sink or to swim, according to their specific gravity, in comparison with that of the water. The iron collar of Saint Sané, in Bretagne, was used as an ordeal: in cases of supposed perjury it infallibly strangled the guilty.* The priest who applied the collar was master of the secret, and consequently the result lay in his hands. The Iodhan-Moran, a collar, worn at the commencement of our era, by the Governor of Iceland, was, if we may believe the traditions of the island, no less formidable. Placed on the neck of a deceitful or refractory person, it was drawn so close, that the power of respiration was almost extinct, and any attempt to reopen it, before a true confession was obtained, invariably failed.† In public market places, it is not uncommon to see the scales of a balance, at the command of a juggler, alternately ascending and descending. This trick may be sport in Europe, but in Hindostan, it places the life of an accused person in the power of the priests, who employ it as an ordeal. They declare, that if guilty, the crime will manifest itself, by adding perceptibly to the previously ascertained weight of his body. After some ceremonies, he is weighed

* Cambry, *Voyage dans le département du Finistère,* tome I. p. 173.

† G. Higgins, *Celtic Druids, Introduction,* p. LXIX. The *Iodhan-Moran* was also intended to strangle the judge who gave an unjust judgment, but it is doubtful whether this miracle was ever displayed.

with care; the act of accusation being then attached to his head, he is weighed again. If he be lighter than at first, his innocence is admitted; if heavier, or if the balance breaks, the crime is proved. Should the equilibrium remain, the trial must recommence, and then, the sacred books declare, there will certainly be a difference in weight.* When the result of an apparent miracle is thus confidently predicted, one may easily conjecture the method by which it has been worked.

An example of another description may be taken from a people, we should scarcely suspect of such refinement of subtlety. An English traveller, the first white man who visited the tribe of the Soulimas, near the sources of the Dialliba, describes the following curious scene. A body of picked soldiers fired upon their chief, who defended himself with nothing but his talismans; and although their muskets were charged, yet they all missed fire; immediately afterwards, without any particular preparations, the soldiers veered round, and pointing their muskets in another direction, they all went off. These men must, therefore, have had the address to open and cover at will the priming of the muskets,† but in some manner which is carefully concealed; and the design was evidently to persuade the people, that they have nothing to fear from the arms of the enemy, as long as they are furnished with amulets, consecrated by the priesthood.

From an earlier time than might at first be believed, men have existed in Europe, who required only audacity

* *Recherches Asiatiques*, tome 1. p. 472.

† Laing's *Travels among Timanni, the Kourankos, the Soulimas*, &c.

or a dominant interest, to induce them to set up their claims to supernatural power.* Now, if we suppose this desideratum supplied, and instead of this being employed for the amusement of a few idle spectators, it is directed to ends less futile, it would command at once the veneration of those whose ridicule alone it now excites.

This deduction is not forced. In our own days a juggler called Comus (and the secret was solely his) could announce privately to any one, the card of which another was thinking; and this when there was no possibility of connivance. Witnesses of this fact are still in existence. In England, also, he repeatedly performed the same trick, before numerous spectators, who, having large bets depending on the result, could not be suspected of collusion. The clear sighted Bacon bears witness to the performance, of the same trick, at a period when the performer by giving such a proof of his skill, incurred the risk of being led to the stake, prepared for wizards and the punishment of witchcraft. The juggler, said he, " whispered in the ear of one of the spectators, that such a person will think of such a card."† The philosopher adds that the trick might be ascribed to connivance,

* Fromann acknowledges that many jugglers (*cauculatores aut saccularii*) have been taken for magicians. (*Tract. de Fascin.* p. 771 et seq.) He notices also, as partaking of the nature of sorcery, the well known tricks, of breaking a glass, cutting a gold chain or a plate into many pieces, and afterwards exhibiting them as perfect and entire as they were before. *Ibid*, p. 583.

† " He did first whisper the man in the eare, that such a man should think of such a card." Bacon, *Sylva Sylvarum*, Century x. 946.

which, however, from his own observation, he had no reason for suspecting.

If men so talented were anxious to signalize themselves by working apparent miracles, in the midst of an ill-informed population, would they find their object impossible? If they are asked, for example, to tell a fortune, fate will undoubtedly become the interpreter of the inquirer's wishes; and by this rule may be measured the extent of their power. Time out of mind, an important part has been played by fate, in the greatest as well as in the most trivial events of life, even where fraud was not suspected. How often, distrustful of their own prudence, or unable to reduce different opinions to harmony, have men referred to the arbitration of fate! The early Christian church had recourse to this appeal, in order to decide whether Joseph or Matthias, should succeed the traitor Judas Iscariot, in the apostleship; and Origen* commends the apostles for this act of

* This remarkable man was born in Egypt, A.D. 184; and, when he was seventeen years of age, his father Leonidas having suffered martyrdom, he was with difficulty prevented from offering himself as a martyr. At forty years of age he had acquired so much celebrity by his eloquence and preaching that it excited the jealousy of his cotemporaries who persecuted him and obtained his expulsion from the office of a presbyter; but his opinion and advice were, nevertheless, eagerly sought after. He successfully answered the objections urged against Christianity by Celsus, a philosopher who lived in the reigns of Hadrian and the Antonines; but some years afterwards, during the Dorian persecution, he was imprisoned; and suffered so severely from the torture, that soon after his release from confinement, he died A.D. 253, in his seventieth year. The talents, learning, and eloquence of Origen, were admitted both by Christians and Pagans; and his piety was

humility, by which they submitted their own judgment, to the decision of Heaven, in a choice which they might have made for themselves.*

This idea has appeared sufficiently plausible, to induce men otherwise enlightened to push it to an extravagant length. Origen did not scruple to advance the opinion that the angels in Heaven,† decide by lot, regarding the particular nation or province, over which each shall watch; or to what individuals they shall act as guardians. A Protestant minister, nearly a century ago, maintained, that an appeal to Fate was of a sacred nature; and consequently that the smallest games, those in which there is but little to be won or lost, are on that account most profane.‡ The question has been viewed in a different light, by a writer who employed his brilliant eloquence to introduce the spirit and doctrines of the temples into philosophy and politics. Plato,§ in his "Republic," suggests that the marriages of citizens should be contracted by lot; but, at the same time, that some secret artifice, known only to the rulers of the State, should enable them to overrule the decision and to render it conformable to their views;

equal to his learning. The writings of Origen, however, led to violent controversies in the church, during the fourth century; and although he settled many disputed points in Scripture, yet he also introduced some dangerous interpretations of them.—Ed.

* *Act Apost.* c 1. v. 24, et seq. "And they gave forth their lots, and the lot fell upon Mathias, and he was numbered with the eleven apostles." Origen, *Homil.* xxiii. *in libr. Jes. Nave.*

† Origen, *Homil.* xxiii. *in lib. Jes. Nave.*

‡ Dejoncourt, *Lettres (quatre) sur les Jeux du Hasard,* La Haye, 1713, p. 19.

§ Plato in *Timæo... et Republic,* lib. v.

and that the artifice should be so well concealed, that such as considered themselves ill-assorted would impute it solely to chance or Fate.

To one or the other opinion, we may refer those events, by which Fate has been forced to represent the will of the Deity, and to be the instrument of the revelation of his decrees. The same means of decision having been employed by policy, and adopted by credulity as true. Nebuchadnezzar mingled his arrows, to decide whether he should go against Ammon or against Jerusalem: the arrow went out against Jerusalem, and the dreaded conqueror did not long delay the accomplishment of the decree of Fate.* This species of divination was in use among the Arabs, in the time of Mahomet: but that prophet proscribed it as a hateful sin.† The Tartar hordes led on by Gengis Khan to the conquest of Asia, endeavoured by this means also to ascertain the issue of a battle. A trick rendered the effect more striking. The magicians wrote the respective names of the rival armies on two arrows, which, without any apparent cause, became agitated, approached each other, and fought; lastly, one placed itself upon the other, which was supposed to indicate the army destined to succumb.‡ Jugglers, who know the use of a hair, or an almost imperceptible thread of silk, in moving cards from a distance, would find no difficulty in working this miracle of the Tartars.

The Christians themselves, have not abstained from

* *Ezekiel*, chap. xxi. 19—22.

† Le Coran, *Sourate v. verset* 99.

‡ Petis de la Croix, *Histoire de Gengis Khan*, p. 65—67.

this superstitious practice. Alexis Comnenus, in order to ascertain whether he should attack the Comanes, and whether he should offer battle, or march to the assistance of a besieged city, placed two tablets on the altar, in the belief that the one which should first strike his eye, after a night passed in prayer, would convey an expression of the will of Heaven.* The Senators of Venice, under the reign of the Doge Dominique Michieli,† not being able to agree respecting the town which they should first attack, referred the decision to the lot, and abode by its result.

Although at Venice, even more than elsewhere, Fate had been frequently consulted in this manner, with a view to modify the elections and divide the suffrages; yet it may be doubted, whether it was seriously allowed to exercise the same influence over the schemes for a campaign, particularly in a Senate renowned for its policy, and at that time composed of accomplished warriors. It was more likely to have been a studied stratagem, intended to engage a brave but undisciplined and insubordinate people, in an expedition the dangers and fatigues of which, robbed it of its glory, and made its necessity less apparent?

In the decline and miserably weak condition of the Greek Empire, neither honour, national interest, nor religion, nothing in fact but superstition, was capable of inspiring a degraded population with energy; it was this decision of Fate that roused Alexis, a Prince who was in advance both of his age and his nation, to action. And

* Anna Comnène, *Histoire d'Alexis Comnène*, liv. x. chap. v.

† D. Michieli, 35e Doge... Hadrian, Barland, *De ducib. venet.*

although, in former times, we find the interpretation of Fate proclaimed in a thousand shapes by the oracles, and its decision sought after with avidity, as well as received with blind veneration; yet, we believe at the same time, that the King of Babylon, having previously arranged his plans, resorted to this superstitious ceremony, merely as a means of insuring its success, by demonstrating its infallibility, as guaranteed by the Gods, to the enthusiasm of his soldiers.

To lead men on by their credulity, in pretending to partake of it, is an artifice of policy, which, in every quarter of the globe, and in all times has been politically employed, without any other care than varying its form, so as to make it coincide with the habits, and the intelligence of the race of men on whom it was destined to act.

The chief of a Brazilian tribe, having taken up arms at the instigation of the Dutch, who had promised him efficient assistance, had some reason to suspect, that his allies intended to leave him to give battle unsupported, and afterwards to reap the fruits of his exertions against their common enemy. On several occasions, therefore, he consulted his Gods in presence of the Dutch Ambassadors. From the sacrificial hut, voices seemed to issue predicting defeat and flight, should the combat commence before the arrival of the promised succour; they also announced, that the time was not yet arrived for receiving their aid; and commanded the chief, meanwhile, to retire before the enemy. With the assent of his soldiers, he protested that he should obey, and retire even into the territories of the Dutch; this was a sure

mode of putting an end to the delay. The Dutch envoy, Baro, firmly believed the oracle to proceed from the devil.* We may ascribe it with greater probability to priests concealed in the sacrificial hut. The artifice was rude, but the policy was complete.

The augur Naevius, after having in the name of religion, boldly opposed the alterations which the elder Tarquin was desirous of effecting in the Roman constitution, was summoned to give a proof of his science, by demonstrating the possibility of a design secretly thought of by that monarch. He replied that he would give a proof. The design was to cut through a flint with a razor; and we are told that the miracle was performed in the sight of all the people.† The oracle of Delphi indicated with precision the occupation of Crœsus in the interior of his palace at Sardis, at the very moment of the inquiry.

We are inclined to suspect that Tarquin, unable honourably to withdraw from a project, the danger of which he perceived too late, connived at the opposition of the augur, and with him, preconcerted the miracle best adapted to give him an apparent triumph; thus preserving his honour by seeming to yield to the Gods alone. We know that the ostensible pretext, for the

* *Voyage de Roulox Baro au Pays des Tapayes en* 1647.

† *Dionys. Halic.* lib. III. cap. XXIV.—Tarquin as a reward of the skill of Naevius, erected him a statue in the *Canitium*, a large open place of Assembly in Rome, and buried the razor and flint near it. Cicero, who had himself been an augur, treats this absurd story as it deserves.—ED.

religious embassies of the King of Lydia, was to consult the Fates on his projects, while their real end was to gain the cooperation of his people, and to encourage them by the brilliant promises made to him by the most celebrated of oracles.*

These promises proved deceitful; and the equivocation by which the Delphic God maintained the reputation of his infallibility, recurs so naturally to our memory, and awakens the recollection of so many similar events, that we might give a sufficient explanation of almost all these oracles, by recalling the ambiguity of terms; the connivance that favoured them; the mechanical inventions that suggested the omens;† and the accidental advantages offered by the simplicity of those who came to consult them. We may, indeed, remark that many of these oracles do not seem so much to have been verified, as credulity desired and believed them to be.

* The same power of stating what is passing in places at a great distance from that in which the person is at the moment he is making the statement, has been assumed by the mesmerists of the present day; and such is the influence of credulity over even educated persons, that many have believed it to be possible.—Ed.

† Lavater had made a promise to the metaphysician Bonnet, that a sorceress, residing at Morat, should four times in a day, declare what Bonnet himself was doing at Geneva. At first, two predictions exactly corresponded; but the succeeding ones were all absurd. (Dumont, *Traité des Preuves Judiciaires de J. Bentham*, tome II. p. 233—234). In an earlier age, credit would have been given to the two first trials, and their fortuitous success would have been deemed confirmatory of a supernatural power.

Every one who has read the excellent History of Oracles by Fontenelle, chiefly* taken from the work of Vandale,† must be aware that it leaves us but little to add respecting a widely spread error of a belief in oracles, which was so universal indeed, that it appears scarcely to have ceased under one form, before it was reproduced under another; so unable are reason and experience to combat with the passionate desire to penetrate into futurity.

I may now merely remind my readers that Apollo bestowed on his favourites the gift of divination, on the condition, that they should not inquire of him concerning that which was not permitted to be revealed,‡ a wise precaution, to avoid perplexing queries. The sybil wrote her oracles on leaves,§ which dispersed on the winds, were by this artifice rendered obscure and incomplete, and opened a door for equivocation until time brought about the event. I need likewise merely

* See Clavier's *Mémoire sur les Oracles Anciens*, 8vo. 1818. Lucien (*Alexandre ou le Faux Prophète*, *Œuvres de Lucien*, t. III. p. 18—23, and 42—46), gives an idea of the artifices employed by the priests of the oracles in his time; amongst others was the secret of unsealing letters so familiar to modern governments.

† Anthony Vandale, a learned Dutchman, who practised both physic and theology. He wrote two dissertations *De Oraculis*, which were published in 1700. The *Histoire des Oracles* of Fontenelle is taken entirely from Vandale's work. Its object is to prove that the oracles were not the responses of supernatural agents or demons; and that they did not cease after the appearance of our Saviour, or the commencement of the Christian era.—Ed.

‡ Servius in *Virgil*, *Eclog.* VIII. v. 30.

§ Virgil, *Æneid.* lib. VI. v. 442—450.

recal to recollection the colossal statue of Siva,* in the rear of which are paths leading to a commodious seat, just under the head gear of the God; a place meant undoubtedly for the priest, whose office it was to utter the oracles, in the name of the God.

Weak impassioned men, the slaves of interest and ambition, of pride and of policy, were those who pronounced these oracles. It is known and a thousand instances demonstrate the fact that they even appeared respectable in the eyes of those who profited by their deluding intervention. This consideration gives the character of history to many mythological tales. A chief or a king is led to believe that intimation had been received from Heaven, that his life and his throne are in jeopardy; and the murderer whom he has to fear, it is said, is his son, or his son-in-law, or the son of his only daughter. By an inconsistency so frequently repeated, that it passes unnoticed, the alarmed Prince, acting on an implicit credence in the prediction and its infallibility, nevertheless adopts such measures as show that he believes it possible to avert his destiny. Condemning himself or his daughter to celibacy, he may die without posterity; or jealously combating an imaginary danger, he may become an unjust aggressor, or a suspicious father, and expose

* Maria Graham, *Séjour aux Indes*, p. 96.—Siva Kala is one of the Hindoo triad, the Indian God of Fire, and is called the Destroyer. His ministers are evil spirits, *Saktis*, who are supposed to live in the stars, clouds, and lower part of the Heavens: and bloody sacrifices are offered up both to the principal God, and to his satellites.—Ed.

himself to assassination, from one whose days he had himself proscribed. His riches and his power thus pass into the hands of the men who dictated the prediction, and who had long been prepared to reap its fruits. In this story there is nothing marvellous, nothing difficult for human credulity to believe; an apparent miracle confined to no age, and to no particular locality.

Only such of the Greeks as were bound by a solemn oath to follow Menelaus, were led by him to the walls of Troy; and among these might have been found many who went with reluctance, and many more who were desirous to abandon a cruel enterprise, the issue of which seemed every day more doubtful and more distant. Of this number Calchas appears to have been a prophet on whom the confidence of the whole army depended.* Sure of his ascendancy, he multiplied discouraging predictions. From the opening of the war he declared that a ten years' siege would be necessary to capture Troy. He reduced the commander-in-chief to the alternative of sacrificing his only daughter Iphigenia to Diana, or renouncing the expedition. At a later period, he required him to part with a favourite slave. The omens which protected the city of Priam, were multi-

* Calchas had received the powers of divination from Apollo; and, at the same time, he was informed that, should he find one more skilled in the art than himself, he must perish. This prediction was fulfilled at Colophon, after the Trojan war. Mopus, another augur, mentioned the exact number of figs on the branches of a certain fig tree after Calchas had failed; and the chagrin which this defeat occasioned was the death of the unfortunate soothsayer.—Ed.

plied by him at will. It was not enough to have dragged Achilles to certain death; the son of that hero should also come there after the death of the father. It was necessary that Philoctetes, removed by an offence which was unpardonable, and only aggravated by time, should be brought there: lastly it was necessary to penetrate into the heart of the besieged city, and to abduct the mysterious image of its protecting deity. Considered in this light, do not oracles, apparently fabulous, form an important part of the history of a people, over whom they exercised so irresistible an empire?*

* The oracles of antiquity were very numerous, but in all of them the pretended revelations were made through some medium, which was different in the different places where the oracles existed. They were consulted on all important occasions of public and private life; and they were expected to point out both what ought to be done, and what ought not to be done by the inquirer.

The most celebrated of the Greek oracles were those of Apollo, of which there were twenty-two; but the chief was that of *Delphi*, which was more resorted to and consulted than even that of Zeus, or Jupiter, at Olympia. At Delphi, the Pythia, when intoxicated by the vapours which issued from under the tripod on which she sat, uttered unintelligible sounds, which were written down, and explained by the priestess before they were delivered to those who consulted the oracle. The Pythias were, in early times, young girls; but, owing to an indiscretion committed by one of them, they were afterwards not elected until they had attained the age of fifty years, although, even then, they were attired as young maidens. They were frequently obliged to be changed on account of the deleterious influence of the gas on their constitutions; and sometimes, indeed, they fell victims to its power, although they prepared themselves before ascending the tripod by fasting three days, and bathing in the Castalian fountain. Plutarch informs us (*de*

If the future may be predicted with certainty, then must it be irrevocably fixed; and thus the prophet resembles the sun-dial, as it passively reveals the sun's diurnal progress. But credulity is as unreasoning as it

*Orat. Def.* c. 51), that the Pythia in her delirium has leaped from the tripod, been thrown into convulsions, and after a few days has died. In the zenith of the prosperity of Greece, there were three Pythias, who alternately officiated.

It is curious to find that, amidst the superstition which gave to oracles such great authority, responses were refused to any one who came with any evil design, or who had committed a crime, until he had atoned for it; the natural effect of which was to insure a sincere faith in the oracle. The opinions respecting the source of the wisdom displayed in many of the answers have been various; some ascribing them truly to divine influence; others, with more probability, to the priests being men of education and elevated sentiments, who, for the sake of power, lent themselves to a sacred imposture.

The next in celebrity of the oracles of Apollo, was that at Didyma, in the territory of Miletus. It was called the Oracle of the *Branchidæ,* from Branchos, a son of Apollo, who came from Delphi, and built the altar at Didyma. The same ceremonies were observed here as at Delphi.

Another oracle of Apollo, much consulted, was situated at *Claros,* in the territory of Colophon. The responses were delivered in verse by a priest, who descended into a cavern, drank of the water from a secret well, and then pronounced the oracle.[a]

Besides the oracles of Zeus, Apollo, and other Gods, there were also oracles of heroes. That of *Amphiares,* near Thebes, was consulted chiefly by invalids, who, after sacrificing a ram, slept a night in the temple, where they expected the means of their recovery to be revealed to them in their dreams; a specimen of credulity only equalled by that displayed in the present time, in the confidence reposed in the healing power of every nostrum which knavery and impudence offers to the public.

[The

[a] Tacitus. *Annal.* II. 54.

is passionate: and according as the predictions please or afflict, the prophet is exalted as a God, or hated as a malevolent Spirit; is adored, or cursed; rewarded, or punished. By fear he is taxed with imposture, with malevolence, or with corruption; he is insulted, menaced, given up to torture; he is supplicated to retract his words, as though the pretended gift of penetrating the future was accompanied by the power of changing its decrees; yet these revelations always obtained credit. If we compare the bearing of these contradictory sentiments with the influence possessed by these oracles, there will be just reason for suspecting that the prophets themselves did not always know the extent of their resources; that they kept within the limits of the power attainable by them: and we may trace the natural progression of the human passions, in what, until the

The oracle of *Trophonius* shall be noticed in a future note.

The oracles of Æsculapius were numerous, but the most celebrated was that of *Epidaurus,* in which recovery was sought in the same manner as at Amphiarus, by sleeping in the temple. A German author of the name of Wolf,[a] has endeavoured to show, that what is now termed Mesmerism, was known to the priests of this temple; but the point is not satisfactorily made out.

The most singular of all the oracles were those of the dead, in which sacrifices were offered to the Powers of the lower regions, and the spirits of the dead were supposed to be called up. It is probable that the agent in this case was ventriloquism; and the shades made to appear by means similar to those employed in the phantasmagoria, of which an explanation will be found in a subsequent note.—Ed.

[a] *Beitrag zur Gesch. des Somnambulismus, &c.* (*Vermischte Schriften, p.* 382).

present time, has appeared to be a mere tissue of falsehoods, or the delirium of the imagination.

I have already said, that many things which, in the present day belong only to the sphere of amusement were formerly employed to extend the dominion of the Thaumaturgists. The ventriloquist, whose only aim now is to excite our laughter, formerly played a more serious part.*

This internal voice, which is apparently extraneous to the utterer, whose lips remain motionless, whether it appeared to come from the earth, or from a distant object, was anciently regarded as a supernatural and superhuman

* Ventriloquism is the power of imitating voices, sounds, or noises, as if they were perfectly extraneous and not originating in the utterer, but in some other person, and in places at various distances, and even in several directions. A skilful ventriloquist produces these effects without any apparent movement of his jaws, lips or features. Various opinions have been advanced by physiologists with regard to the manner of producing such an effect. The most commonly received opinion refers it to the power of articulation during inspiration. M. Majendie regards it as a mere modification of the ordinary voice, so as to imitate the sounds which the voice suffers from distance: and latterly Müller contends that, it "consists in inspiring deeply, so as to protrude forward the abdominal viscera by the descent of the diaphragm, and then speaking while the expiration is performed very slowly through a very narrow glottis by means of the sides of the chest alone, the diaphragm maintaining its depressed position. Sounds may be thus uttered which resemble the voice of a person calling from a distance." [a] This is a very probable explanation, especially as the imagination influences the judgment when we direct the ear to the place whence the ventriloquist pretends that the sounds proceed; a part of the trick which is always taken advantage of by the ventriloquists.—Ed.

[a] Müller's *Elements of Physiology, translated by Baly*, vol. II. p. 1307.

sound.* The expressions of the historian Josephus,† leave no room to doubt that the witch of Endor was a ventriloquist, and thus had no difficulty in conveying to Saul responses from the assumed shade of Samuel. Other beings similarly endowed with the spirit of a Python, and the power of sorcery, expressed their oracles through the medium of a low dull voice, apparently issuing from

* *Flav. Joseph. aut. Jud.* lib. iv. cap. xv.

† The art of ventriloquism was known at a very early period, and was generally regarded by the ignorant as a supernatural gift, associated with sorcery. It was one of the evidences against a person accused of sorcery, and of course had a share in producing their condemnation. In the seventeenth century a woman named Cecile, astonished the inhabitants of Lisbon with her powers as a ventriloquist; she was convicted of being a sorceress, and possessed of a demon; and, although she was not burnt, yet, she was transported to the island of St. Thomas, where she died.[a]

"One of the most successful ventriloquists of modern times was M. St. Gille, a grocer, of St. Germain en Laye. He exhibited his art merely as a matter of amusement, but with a degree of skill which appears almost incredible. He had occasion to take shelter from a storm in a convent, while the monks were lamenting, over the tomb of a lately deceased brother, the few honours that had been paid to his memory. A voice was suddenly heard to proceed from the roof of the choir, bewailing the condition of the deceased in purgatory, and reproving the brotherhood for their want of zeal. The tidings of this supernatural event brought the whole brotherhood into the church. The voice again repeated its lamentations and reproaches, and the whole convent fell upon their faces, and vowed to make a reparation of their error. They accordingly chanted in full choir a *De Profundis*, during the intervals of which the spirit of the departed monk expressed his satisfaction at their pious exercises. The Prior afterwards expressed himself strongly against modern scepticism on the subject of ap-

[a] Hist. *Curieuse des Sorciers*, &c. par Mathias de Giraldo.

the earth: from which custom a striking comparison is borrowed by the prophet Isaiah.*

The name of Engastrimythes, given by the Greeks to the Pythiæ, women practising the art of divination,† indicates, that they made use of the same artifice. Pythagoras addresses a speech to the river Nessus, which answered in a distinct voice, *I greet thee, Pythagoras.*‡

paritions; and M. St. Gille had great difficulty in convincing the fraternity that the whole was a deception.[a]

The influence of ventriloquism over the human race is not, therefore, wonderful, when we perceive that it is not merely confined to the imitation of sounds and voices on earth, but that he has, in a certain degree, the supernatural at his command. The power which it must have given to the Pagan priesthood, in addition to their other deceptions, may be easily imagined.—Ed.

* "And thy voice shall die as one that hath a familiar spirit, out of the ground, and thy speech shall whisper out of the dust." *Isaiah*, cap. xxix. v. 4.

† D. M. K. Putonissæ Martis. An inscription found in the village of Colombiers, in the diocese d'Usez, (*Voyage littéraire de D. Martenne et de D. Durant, Première Partie*, Paris 1712. p. 313.) shews us that Mars had in Gaul, Pythiæ, or priestesses, having the gift of ventriloquism.

‡ *Iamblich vita Pythagor.* cap. 28.—Pythagoras was born at Suma, about the year 608 B.C. His father Menarchus, was a person of distinction, and therefore capable of affording his son every advantage which education can bestow; and Pythagoras lost no opportunity of profiting by them, both in respect to bodily and mental vigour, and energy. He travelled expressly to acquire knowledge, and submitted to much severe discipline for that purpose. In the temple of Thebes, and by a residence of twenty-two years in Egypt, he became deeply versed in all the learning of the Egyptians, which he at first unsuccessfully endeavoured to transfer to Samos; but after-

[a] Quoted from a record of Abbé de la Chapelle, in *Brewster's Nat. Magic*, p. 172.

At the command of the chief of the Gymnosophists, of Upper Egypt, a tree uttered words, in the presence of Apollonius, with a clear voice, resembling that of a woman ;* in both these cases, the voice was that of a ventriloquist, placed in a convenient situation; and to the same origin we may with probability, ascribe the oracles said to proceed from the oaks of Dodona.† It is by astonishing his auditors by ventriloquism, that the Chinese prophet, or magician, persuades them that

wards succeeded by affecting mystery, living in a cave, and descending to practise on the credulity of his countrymen, who, having discovered his frauds, forced him to leave the island. At Crotona, where he settled, he taught the virtues of temperance, and made numerous proselytes among the most voluptuous and abandoned. He was, nevertheless, still an impostor, practising for the sake of ambition. He lived upon vegetables, clothed himself in a long white robe, allowed his beard to grow, and impressed upon the multitude, that he had received his doctrines directly from heaven. These he publicly delivered under the veil of symbols ; but those initiated in private, were bound by a vow of silence, not to divulge what they had acquired. He maintained the doctrine of the metempsychosis, or the transmigration of the soul: and pretended that he remembered being the person in whom his soul had resided before he became Pythagoras. His doctrine of the universe was that lately revived in the "Vestiges of Creation," namely :— that the universe was at first a shapeless mass; and all subsequent forms progressed through certain gradations, until they arrived at perfection. He invented the fanciful doctrine of the music of the spheres; and he was supposed to have heard it through the favour of the Gods. He died 497 B.C., it is supposed at Metapontum, where his disciples paid superstitious honours to his memory.—ED.

* Philostrat. *vit. Appollon.* lib. VI. cap. V.

† It is more probable, that the priests were concealed in among the oaks, and delivered the responses which were attributed to the trees.—ED.

they listen to the voice of their divinity. This art was not unknown to the black slaves at Saint Thomas. About the commencement of the last century, one of these unfortunate people having caused a voice to emanate from an earthern figure, and even from a cane, carried by one of the inhabitants, was burned alive as a sorcerer.* In our own days, the credulous planter has been known to consult a noted sorcerer, in other words, a ventriloquist slave, who in order to retain his confidence, was not backward to devote even the innocent to death or torture, for a real or an imaginary crime, the authors of which, he is required, by his divinations, to discover and to name.†

A blind, and even eager credulity, favoured the subtle and audacious deceptions that maintained the credit of the oracles. But a day at length arrived, in which the lessons of philosophy were spread among the enlightened classes; and from that moment credulity was prostrated before the spirit of inquiry. Almost at the same time arose the Christian religion, which in its progress exposed the miracles of Polytheism, with such a scrutinizing observation that it succeeded in rendering the manœuvres of which, till then, the diviners had availed themselves, not only difficult but almost impracticable. Such were the real causes of the gradual cessation of the most celebrated oracles. To replace those fallen into disrepute, the Polytheists endeavoured to bring new ones into notice; but these being

* In 1701.—Labat. *Nouveau Voyage aux îles françaises de l'Amérique*, tome II. p. 64—65.

† I learned this fact from a credible witness.

narrowly watched from their birth, never obtained an extended or permanent confidence. Oracles necessarily disappeared sooner than miracles, the execution of which, as they depended on scientific acquirements, continued to command the admiration, not only of the credulous but also the sceptical who were unable to discover their origin, as long as that knowledge remained enveloped in mystery.

It is not correct, however, to assume that, in the delivering of oracles, all was intentional imposture and deceit. Those who uttered them were often under the influence of real delirium. M. de Tiedmann very plausibly believes, that the German priestesses, prophesying amidst the din of the tumult of waters, and fixedly regarding the eddies formed on the rapid course of the river,* would, in such a position, soon become vertiginous. Something similar may be seen in the cataleptic state into which the magnetizers throw their subjects who are weak in organization, and still more feeble in mind, by disturbing the imagination and fixing attention for a considerable time on a succession of monotonous and absurd gestures.

Music, exercising its well known influence, is calculated to dispose an enthusiast to believe that the Gods adopt it as a medium of revelation. Even among the Hebrews, as among other people of antiquity, the prophet had recourse to music to maintain the prophetic elevation of his spirit.† The prophets, or

* Plutarch, in *Cæsar*. cap. XXI.—S. Clem. *Alex. Stromat*. lib. I.

† Elisha after declaring that except for the presence of Jehosaphat, he would not prophecy for Jehoram, says, "But now bring me a minstrel. And it came to pass, when the minstrel played, that the hand of the Lord came upon him."—1 *Kings*, II. c. IV. v. 15.

Barvas, of the Billhs, in Hindostan, excite their minds by sacred songs and instrumental music, during which they are seized with a kind of frenzy, attended with extravagant gestures, and end by giving utterance to what are regarded as oracles. The Barvas receive disciples, and after some preparatory ceremonies, subject them to a kind of musical ordeal. Such as are not moved by it to the borders of ecstatic frenzy, are immediately rejected, as incapable of being the recipients of divine inspiration.*

Unless the mind is excited, there can be no belief in oracles; and to produce this in the auditor, the excitement must be experienced by the utterer. In the temples of Greece and those of Asia, besides the use of flutes, of cymbals, or of trumpets, more powerful agents were summoned, when heavenly interpretations were to be delivered.

When a dream was the chosen mode of revelation, the youngest and most simple persons were selected as best adapted to succeed in this divination; and they were assisted in it by magical invocations, and by the incense of particular perfumes.† Porphyry acknowledges that such processes are calculated to inflame the imagination, and Iamblichus expresses the same opinion in different words, asserting that such preparations render a man worthy of approaching the Divinity.

At Didyma,‡ previous to prophesying, the priestess of

* *Nouvelles Annales des Voyages*, tome xxvii. pages 333—334.

† Iamblichus, *de Mysteriis*, cap. xxix.

‡ A place near Miletus, where the Branchidæ, a family who were the hereditary priests of the Temple of Apollo Didymæus, held their oracle.—Ed.

the oracle of Branchides inhaled for some time the vapour of a sacred fountain.* The oracle of the Colophonians, at Claros, was delivered by a priest, who prepared himself by drinking the water of a basin inclosed in the grotto of Apollo. This beverage is said to have shortened his days.† It is well known in how strange a manner the Pythia was exposed to the vapour exhaled from the cavern of Delphi.‡ Pindar and Plutarch assure us, that the escape of the sacred vapour was accompanied by a sweet odour, which penetrated even to the cell, where those who came to consult awaited the responses of the oracle.§ Whether natural perfumes were combined with the physical agents, or that the priests sought with the assistance of artificial perfumes to conceal the fœtid odour of the gas which issued from the cavern, cannot now be determined. But, after a time, the Pythia ceased to answer; the exhalations, also, at length ceased; and owing to that cessation, the contemporaries of Cicero accounted for the silence of the oracle. Cicero rejects this explanation with contempt; and, theologically speaking, it was absurd, but quite admissible as a physical reason for the silence of the oracle.‖ Centuries later, Por-

* Iamblichus, *de Mysteriis*. cap. xxv.

† *Bibentium breviore vitâ*.—Plin. *Hist. Nat*. lib. II. cap. cv. Iamblich. *de Myst*. cap. xxv.

‡ S. Johan. Chrysost. *Homelia*, xxix. super cap. xii. Epist. i. *ad Corinth*.

§ Pindar. *Olym*. vii. ver. 59.—Plutarch. *de Oracul. defect*.

‖ Cicer. *de Divinat*. lib. II. The original temple, if it could be called such, at Delphi, was a hut made of boughs of laurel; but it afterwards became a splendid edifice. It was three times destroyed by the accidents of war and of fire, and three times rebuilt. The

phyry* unhesitatingly affirms that the exhalations of the earth, and the water of certain fountains, tended to excite divine ecstacies, in the midst of which the oracles were delivered. Inebriated with the gas that exuded beneath the sacred tripod, the Delphic priestess fell into a nervous, convulsive, and ecstatic state, against which she might struggle without being able to regain her self-possession. Whilst out of her senses, and under the sway of an over-excited imagination, she uttered some words, or mysterious phrases, from which it was the priest's care to extract the revelations of the future.† All this is as natural as the sinking languor which succeeded this excessive disorder of body and mind, and which sooner or later proved mortal.

We may thus see, that it is in vain to follow the history of miracles and of prodigies, or to think of examining separately what appertains to the history of

responses were at first delivered in verse, but on some one remarking that Apollo was the worst versifier in Greece, they were afterwards delivered in prose. The tripod on which the Pythia sat, is still in existence at Constantinople, where it was carried by Constantine; but the hollow column on which it stood, remains in the cavern.—Ed.

* *Euseb.* Præp. evangel.

† The tripod was placed over the mouth of the cavern, whence issued the vapour, which was supposed to be carbonic acid gas; but that is not sufficiently intoxicating; and I suspect the gas was sulphurous acid, as it caused almost frantic delirium, as already mentioned (note, p. 154). The secondary effects of this gas are also similar to those experienced by the Delphic priestess, namely, vertigo, nausea, and great weakness of the lower extremities. The Piachi, or Mexican priests, uttered their responses, or oracles when drunk with the fumes of tobacco, which, on these occasions, was thrown upon the fire of the altar, and the fumes inhaled by the priests.—Ed.

ancient science. When the priest of Claros was affected by a beverage destructive to his health, when the priestess of the Branchides, and the Delphic Pythia, exposed themselves to gaseous exhalations, the power of which was augmented by other physical agents; when the prophetesses of Germany, rapt in contemplation, sat immoveable on the borders of torrents; when the Barvas abandoned themselves to the power of music, whose influence over them was fostered by their religious education, no results, in all these cases, could be more natural than the dreams, the delirium, the intoxication, the vertigo, and the frantic excitement, that were consequent on their proceedings. The subsequent inspiration, or rather the oracles attributed to it, were but the impostures of priestcraft; but science presided over their craft, and regulated the causes of the vertigo, and of the frenzy, and pointed to the advantages to be derived from them by the Thaumaturgists.

Simple observations, which require nothing beyond common reflection, and which we scarcely venture to range under the head of science, have also been the foundation of oracles. Instructed by general laws, the priest was able to risk a prediction respecting the soil and the climate of a country, by consulting the entrails of particular victims. The science of the Auspices, and of the Augurs, was also founded on observations appertaining to physics, to meteorology, or to natural history.

In Livonia and in Esthonia, a religious opinion, anterior to the establishment of Christianity,* forbad the

* Debray, *Sur les préjugés et idées superstitieuses des Livoniens, Lettoniens et Esthoniens.— Nouvelles Annales des Voyages,* tome XVIII. page 114.

agriculturist to destroy by fire the crickets (Gryllus *domesticus*) that he should find in his habitation; as those insects which the crickets kill would tear his clothes and his linen to pieces. When about to build a house, he was directed to observe what species of ant showed itself first at the appointed place. The appearance of the great *fawn-coloured* ant, or the *black* ant, was regarded as pointing out the spot as a favourable site; but should the small *red* ant appear, another spot was to be selected. This precaution was proper, as this little insect makes the greatest havoc in the provisions and stores of man, while the two former species, by preying upon the latter, necessarily put an end to its ravages. In the same manner, the cricket devours other insects; and it is especially destructive of ants; a fact which has entitled it to consideration, and in many countries rendered it a sacred insect. There is no difficulty in predicting to the man who destroys them, that he will suffer from the ravages of those insects of which it is the natural enemy.

From infancy, Nævius announced his future talent for the profession of an augur. In order to obtain a fine bunch of grapes, as an offering to the Gods, he consulted the birds with as much success as sagacity:* he knew that by frequenting the spot where the grapes were ripe and abundant, their preference should lead him to the object of his search. A similar proof of juvenile sagacity was exhibited in our times. Gassendi, directing the attention of his school-fellows to the sky, as they stood under a tree, proved to them that the clouds, driven rapidly by the wind, moved over their heads, and not the moon,

* *Dionys. Halic.* lib. III. cap. XXI—LVI.

although she appeared the moving object. In the days of oracles we should have beheld in him an embryo prophet.

The Thaumaturgist has always proposed to himself one great end; and, in order to attain it, he has not scrupled to make use of all means indifferently, whether charlatanism, tricks, allegories, natural phenomena, observations, reasoning, or true science. But of all the means employed, perhaps the most powerful, at least that which increased the efficacy of all the rest, was the inviolable secresy which, by general consent, concealed his operations. To envelop events in the veil of mystery,* said the sages themselves, serves to raise veneration for those divinities, whose nature eludes the senses of man.

* *Mystica sacrorum occultatio majestatem numini conciliat, imitans ejus naturam effugientem sensus nostros.*—Strabo. lib. x.

## CHAPTER VIII.

Safeguards of the mystery that surrounded the Occult Sciences—Hieroglyphics, idioms and sacred writing—Not understood by the uninitiated — Enigmatical language of the invocations—Gradual and partial revelations known in their plenitude only to a small number of priests—Oaths, and falsehoods respecting the nature of the processes, and the extent of Magical operations — Consequences of this mystery : — I. The Science of Magic was reduced, in the hands of the Thaumaturgists, to a practice, the nature of which, devoid of theory, became in time unintelligible—II. Great errors universally prevailed, owing to ignorance of the limits that circumscribed this power; the desire to penetrate into secrets of Magic, and the habit of attributing its efficacy to the visible and ostensible processes of Science.

OUGHT we to be astonished, that the writings of the ancients discover only scattered traces and imperfect notions of the Occult Science; or even that some portion of the science is entirely lost? The student of history well knows, that in former times, not only the more refined pursuits, but also all the treasures of real knowledge, were under the careful guardianship of the genius of mystery, and therefore more or less inaccessible.

How many causes concurred to maintain that power! The subsistent influence of the settled form of civilization; the rites of initiation, subsequently adopted by the schools of philosophy; the value of exclusive possession; the well-grounded fear of drawing on itself the hatred of men, who cherished this property with a jealous pride; and lastly, above all, the necessity of keeping mankind in darkness, in order to retain the control over him, with the desire to preserve what formed, as it were, the patrimony of the enlightened classes, the guarantee of their honours and their powers.

This last consideration did not escape the observation of a man, who knew how to enhance by sound and deep philosophy the value of his extensive erudition. Michaelis* remarks, that a universal language, invented by the learned, and exclusively for their use, would secure to them the sole possession of science. "The multitude would resign themselves to the governance of those learned impostures, as was the case in Egypt, when all discoveries were concealed under the veil of hieroglyphics." For instance, were the discoveries relative to electricity only expounded in such a language, what could be more easy than to metamorphose the phenomena of that science into apparent miracles, and establish a sacred tyranny by

* Michaelis, *On the influence of opinions on language, and of language on opinions,* 1759.—John David Michaelis, a native of Halle, Professor of Theology, and Oriental Literature in the University of Göttingen. He is celebrated for his biblical and oriental researches. It is said that his religious opinions were never very firmly fixed; but his writings are strikingly demonstrative of his reverence for the Sacred Scriptures.—Ed.

means of false wonders? "Thus the opportunity would tempt, and the facility of deception augment the number of impostors."

One step farther, and Michaelis might have observed that his hypothesis was the actual history of antiquity; that almost all nations have possessed some species of sacred writings, not more intelligible to the vulgar than the hieroglyphics of Egypt. The Roman pontiffs, in their rites, made use of names and words known to themselves alone; the few we are acquainted with, relate only to ceremonials; those having reference to real science have been too carefully concealed to reach us.

This is precisely what we learn from Lydas,* relative to the people from whom the Romans borrowed their religious system. The Etruscans, he informs us, were instructed in divination by the Lydians, before the arrival of Evander,† the Arcadian, in Italy. At that time there existed a form of writing different to that afterwards made use of, and which was not generally known; and without its aid no secret would have long

* Lydas, *de Ostentis*. cap. III.

† The son of the prophetess Carmente, and a King of Arcadia. He was driven from Arcadia on account of an accidental murder. He retired to Italy, drove out the aborigines, and acquired the sovereignty of that country. He raised altars to Hercules in his new possessions: introduced the Greek alphabet, and many of the customs of Arcadia. He was a contemporary of Æneas, and assisted him in his wars with the Rutuli. He was deified after his death, and an altar erected to him on Mount Aventine.—Ed.

remained hid from the profane. Tarchon, the ancient* (anterior to the contemporary of Æneas of that name), had written a book upon the mysteries and the religious rites of divination; in which he represented himself as interrogating Tages (the miraculous child, born from a furrow of the earth), precisely as Arjuna questions the God *Krishna*, in the *Bhaghuat Ghita*.† The questions of Tarchon were expressed in ordinary language; but in his book the answers of Tages were conveyed in ancient and sacred characters; so that Lydas, or the writer whom he copies, was not able to do more than conjecture the sense by reflecting on the questions themselves, and from some passages relating to them in Pliny and Apuleius,‡ Lydas insists on the necessity of not clearly exposing the secret science, and of concealing it from the profane by fables and parables: it is only in this spirit that he writes on

* Photius says, that Tarchon instructed the Etruscans in the Mystical Sciences.—*Biblioth. Cod.*

† It is a curious fact, that the name Krishna in Irish, as well as in Sanscrit, is applied to the sun.—Ed.

‡ Lucius Apuleius, a Platonic philosopher of the second century. He was born at Madauras, in Africa; and, after studying at Carthage, Athens, and Rome, he travelled with the intention of obtaining initiation in the mysteries which then enveloped many religions, and almost all science. He became a priest of Osiris, and having married a rich widow, he was accused by her relations before Claudius Maximus, Proconsul of Africa, of having employed sorcery to obtain her hand. He wrote numerous works in prose, and in verse; the best known of which is the Golden Ass, a satire on the absurdities of Magic, and the crimes of the Priesthood. It is a romance, but written with so much resemblance of truth, that many persons have believed all related in it as true history.—Ed.

miracles. The same opinions are contained in the works of a writer of the sixth century, and they must indeed have been anciently very widely spread.

We must not, however, imagine that the Egyptian priests trusted entirely to the impenetrability of their hieroglyphics. When Apuleius obtained the first degree of initiation, the books destined for his instruction were brought by the priest from the most secret part of the sanctuary. It was not enough that the images of diverse species of animals were used in place of stenographic writing; one part of these books was written in unknown characters; and the language in all of them was further preserved from the curiosity of the profane,* by the addition of numerous accents, absurd and varied in their forms, and undoubtedly changing the value of the letters above which they were placed.

In Egypt, and probably also in the temples of other countries, these mysteries were concealed under a second envelop, namely the language in which the invocations were couched. Chaerémon† gave instructions how to command the genii, in the name *of him who sitteth on the Lotus—borne in a vessel,* or who *appears different in each of the signs of the Zodiac.* These marks unequivocally distinguish Osiris, the Sun-God.

* "*De opertis adyti profert quosdam libros* litteris ignorabilibus, *prænotatos,* partim figuris cujusce modi animalium *concepti sermonis compendiosa verba suggerentes;* partim nodosis, et in modum rotæ tortuosis capreolatimque condensis apicibus, a—curiosâ profanorum lectione munitos."—Apuleius, *Metamorph.* lib. XI.

† Porphyre, *quoted by Eusebius.*—Præp. evang, lib. v. cap. VIII. et IX.

Emanating from an astronomical religion, the sacred formularies transferred the language of Astronomy to magical operations.

We shall prove that the sorcery and magic of the moderns, were in a great measure composed of the relicts of the Occult Science, formerly preserved in the temples. We can trace in it that confusion of language, so much the more striking, that nothing could give rise to it at an epoch distant from the reign of astronomical religion; so that we are authorized to affirm that it is referable to a period, when its expressions were comprehended, its origin known and revered. A sorcerer of Cordova* invoking a star, conjured it in the name of the *angel-wolf:* now, we know well that the wolf in Egypt was emblematical of the sun and of the year, yet this example, were it a solitary one, would prove little. But on examining the fragment published by J. Wierius under the title of *Pseudo-Monarchia Dæmonum,*† we cannot fail to see in it the disfigured vestiges of a celestial calendar. In the pretended list of the genii obedient to the invoca-

* Llorente, *Histoire de l'Inquisition,* cap. XXXVIII. tome III, page 465.

† J. Wierius, *De Præstigiis dæmonum et incantationibus ac veneficiis.*—Basileæ 1583. The magicians give pompous titles to this fragment. They call it sometimes *Liber empto-Solomonis;* but in all probability it is but an extract of a more extensive work that bore this name, and the authority of which is even cited in Wierius' work. Joannis Wierius was a native of Graves in Brabant. He flourished in the middle of the sixteenth century. He studied both Theology and Medicine, and was a man of very extensive erudition.—ED.

tion of the Theurgist, we find one whose double face recals that of Janus the emblem of the close and the opening of the year.

Four kings are stated to preside over the four cardinal points; the *Man*, the *Bull*, the *Lion*, all three-winged; and the *Crocodile* which, in the Egyptian planisphere stands instead of the *Scorpion;* and these are the ancient solstitial and equinoctial signs. Some genii, we are told, inhabit the celestial signs; one in particular resides in *Sagittarius*. Among them may be found the *dragon (draco)*, the *marine monster*, the *hare (lepus)*, the *crow (corvus)*, the *dog (canis major)* the *virgin (virgo)*, the *little horse*, whose name figures among the constellations. Some other genii, described with more detail, have distinguishing characters, similar to those ascribed to the genii of the stars, months, decades, and days, in the Indian and Persian spheres, and the Egyptian calendar.* It is not, therefore, rash to presume that these terms and astronomical allegories were introduced by religion into the ceremonial of the Occult Science; and it must be acknowledged they not only tended to make this study complex, but also to render it obscure; because the mind involuntarily established an erroneous connection between the objects allegorically presented and the results, totally foreign to the religions whence they were derived.

Borrowed, as it may sometimes have been, from a

* *Sphærarum Persicæ, indicæ et barbaricæ ortus,* ex libro Aben Ezrae Judæorum doctissimi.—*Monomæriarum ascendentes cum significationibus et decanis suis Ægyptiacis.* — J. Scaligeri, *Notæ in Manilium*, pages 371—384 et 487-504.

language, distinct from that of astrology, the mystery would have been not less difficult to penetrate, nor less fitted to mislead the uninitiated, who might endeavour to pierce its obscurity. A modern example, and one apparently futile, will explain this remark.

Populeam virgam mater regina tenebat.

If I assert that it is necessary to remember this latin verse, in order to ensure success in a complicated trick at cards, persons familiar with this kind of amusement, will readily conjecture that, by their conventional numerical value, the vowels mark the number of cards, or points, which it is necessary consecutively to add, or to cut off. They will easily conceive, that the same means may serve to design the proportions of substances necessary to combine in a chemical experiment; and they will recognise the fact that five or six verses, composed of barbarous words, and constituting no sense, were in a similar manner employed, during several ages, to indicate the different forms that may be taken by syllogism in argument.

But let us transport ourselves into times when the intelligence of man was in this manner awakened by any experiment; and we should find in the verse borrowed from a foreign language, a magic formulary, similar to those repeated, but not understood, by the Greeks and the Romans. The curious will not suspect that its efficacy rests on the respective position of the vowels; they will seek it in the sense of the words, if they can attain a knowledge of them; but ignorance will establish a mysterious relation between the art of divining the

thoughts, and the Latin line, which may thus be translated, "*a branch of poplar held by a queen and a mother.*"

Even these obstacles were not sufficient to free from alarm the jealous uneasiness of the possessors of the sacred sciences.

From the expressions of several writers, we may conclude, with probability, that in the process of initiation, all the secrets of Nature were revealed to the adept. That these revelations were bestowed upon him by slow degrees, we may be satisfied by the example of Apuleius. It was only after a length of time, and after several successive initiations, that he arrived at the highest degree; nevertheless he congratulated himself on having obtained in youth an honour and a perfection of knowledge usually reserved for old age.*

Whatever may have been the extent of the revelations made to the initiated, we may ask, did the efficient causes of the prodigies form a part of them? We are inclined to think that soon after the institution of the initiations, the knowledge of these causes was reserved for a class of priests who, in several religions, were known as a separate body, under a distinct name. Mr. Drummond† is of opinion that the *Chartomi*, Egyptian priests, possessed alone, to the exclusion of the inferior priests, the knowledge of all the hieroglyphics. We may also inquire what was the reason that the books of Numa, discovered nearly five centuries after the death of that Prince, were

* Apul. *Metamorph.* lib. XI.—*Ad finem.*

† S. W. Drummond. *Memoir on the Antiquity of the Zodiacs of Esneh and Dendera*, pages 19—21.

burnt at Rome, as capable of doing injury to religion?* What, but chance, which, instead of throwing them into the hands of the priests, had first given them to the inspection of the profane; and the volumes exposed, in too intelligible a manner, some practices of the Occult Science cultivated by Numa with success. Two of these books, if we may credit tradition, treated of philosophy:† a name which, it is well known, was often applied in ancient times to the art of working miracles; and it was in perusing the Memoirs left by Numa, that his successor, Tullus Hostilius, discovered one of the secrets of that art: an imprudent experiment‡ which proved fatal to its possessor.§

To these various precautions, was added the solemnity of a terrible oath, the breach of which was infallibly punished with death. The initiated were not permitted to forget the long and awful torments of Prometheus, guilty of having given to mortals the possession of the sacred fire. Tradition also relates, that as a punishment for having taught men mysteries, hitherto hidden, the Gods cast thunderbolts on Orpheus, a fable probably

* *Valer. Max.* lib. I. cap. I. § 12.

† *Tit. Liv.* lib. XL. cap. XXIX.: Plin. *Hist. Nat.* lib. XIII. cap. XIII.

‡ See Chapter XXIV.

§ Tullus Hostilius was the third King of Rome after Numa. The cause of his death is not precisely known; for although some suppose that he was killed by lightning, the result of a magical process, conducted in his palace; yet, others assert that he was murdered by Ancus Martius, who at the same time set fire to the palace, in order to originate the belief that the impiety of Hostilius had been thus punished by heaven.—ED.

derived from the nature of the death of one of the priests of the Orphic mysteries that bore the name of the founder of the sect.* Until the downfal of Paganism, the accusation of having revealed the secrets of initiation was the most frightful that could be laid to the charge of any individual, especially in the minds of the multitude, who, chained down to ignorance and submission by the spirit of Mysticism, firmly believed that, were the perjured revealers permitted to live, the whole nation would be sacrificed to the indignation of the Gods.

Falsehood was another resource and security of mystery; but this is one familiar in all ages; and, unhappily, still practised by the votaries of Commerce, always fearful of losing the benefits of exclusive possession.† The magic art had stronger reason to disseminate lies regarding the

* Pausanias *Bœotic.* cap. xxx.—Two epigrams of the Anthology suppose that Orpheus died by lightning. It is said there is some reason for doubting the existence of Orpheus: "*Orpheum poetam docet Aristoteles nunquam fuisse,*" says Cicero, although that orator himself believed in the existence of the musician: but it is a matter of little moment. The mysteries termed Orphic were introduced into Greece from Egypt, prior to the worship of Dionysius, which was also of foreign origin. It is supposed that the fable of the destruction of Orpheus by the Thracian women in a Bacchic festival, was merely typical of the victory of the new over the old religion.—Ed.

† The Indians, who alone traded in cinnamon, affirmed, that it was not known whence this aromatic substance came; and that it was procured by obtaining the nests, constructed of branches of cinnamon, by particular birds.—Aelian. *De Nat. Anim.* lib. II. cap. XXXIV.—Lib. XVII. cap. XXI. The censure of our author, however, cannot be justly applied to modern merchants, who, desirous as they may be to obtain all the advantages which monopoly can secure to them, do not condescend to employ falsehood to advance their plans and render their speculations successful.—Ed.

nature and extent of its power. Had it been openly exposed and rendered familiar, the admixture of valuable knowledge, puerilities, and charlatanism of which it consisted could not have commanded either admiration or obedience.

Aglaonice* having been able to predict an eclipse at the moment of its occurrence, persuaded the Thessalians that, by her magical incantations, the moon was obscured and forced to descend upon earth.† Such marvellous virtues were ascribed to the plant named *baaras*, or *cynospastos*,‡ that it was important for the Thaumaturgists to retain it entirely for their particular use. Thence sprung the asser-

* Aglaonice was the daughter of Hegeman, a Thracian poet, and versed in astronomy, and the doctrine of eclipses.—Ed.

† Plutarch. *De Oracul. Defectu.*

‡ It was also called Aglaophotis. It is the Atropa *Mandragora* of modern botanists, the Mandrakes of the Old Testament, for which Rachel bargained with Leah. The grossest superstitions are employed in taking up the root of the mandrake; and its virtues were supposed to depend altogether on the mode in which this was accomplished. The earth was loosened, and a cord fastened around the root, with the opposite end tied to the tail of a dog: the poor animal was then whipped so as to make it run forwards, and thus to drag the root out of the ground. "In the meantime," says Bulleine, speaking of those engaged in taking it up, they "stopp'd their own eares for feare of the terrible shriek and cry of the mandrack. In whych cry it doth not only dye itselfe, but the fear thereof killeth the dogge, or beast which pulleth it out of the earth."[a] Shakspeare refers to this when he makes Juliet exclaim:

> "And shrieks like mandrakes torn of the earth,
> That living mortals, hearing them, run mad."

This belief, and the supposed virtue of the root against barrenness afforded ample opportunity for impudent impostors to impose, in an extraordinary manner, on the credulity of the vulgar.—Ed.

[a] *Bulwarks of defence against sickness*, 1573. fol. p. 41.

tion that it could not be pulled out of the earth without the risk of life, unless by the employment of some singular precautions, the details of which are given by Josephus with all the gravity of conviction.*

Such in general was the policy which the Thaumaturgists employed to mislead men as to the manner of attaining their ends by the use of certain ostensible proceedings which, in reality, were altogether indifferent and useless. To throw an appearance of enchantment and supernatural agency around operations often so simple that, apart from the deceptive covering of fraud and jugglery and left open for inspection, they would have been quickly understood and easily imitated by any one. In short, to load the expression of real facts with false or futile accessories, or according to them, "*to hide the discoveries of the wise, from a multitude unworthy to possess them*"† These are the words of Roger Bacon: they demonstrate that the same policy existed in the middle ages; but its origin may be traced to the earliest times, in which men of research were ambitious of securing for their acquirements a supernatural reputation,‡ and an incommunicable nature, in order to exalt themselves above ordinary

* Fl. Joseph. *De Bell. Judaic.* lib. VII. cap XXIII.—Aelian. *De Nat. Animal.* lib. XIV. cap. XXVII.

† *Quæ philosophi adinvenerant, in operibus artis et naturæ, ut secreta occultarent ab indignis.*—Rog. Bacon, *de secret. oper. art.* cap. I.

‡ Thus it was asserted, that instructed by a revelation, Elizabeth, the wife of Charles I. King of Hungary, in the beginning of the fourteenth century, discovered the spirit produced by the distillation of alcohol on rosemary, and known by the name of Hungary water.—Boquillon, *Dictionnaire biographique*, tome I, p. 208.

humanity, and to wield an influence over the rest of mankind.

What were the effects, generally, on the human mind in the infancy of science, when it was cherished by men of jealous habits, so contrary to the liberal philosophy of the present day,* which finds its noblest gratification in the duty of imparting its treasures and its discoveries?

"The ancients," says Buffon, "reduced all the sciences to practise. All that did not immediately concern society, or the arts, was neglected; and, as they regarded man only in the light of a moral being, they would not allow that things of no palpable utility were worthy of occupying his attention."† This universal precept was applied with force to the study of the Occult Science; but nothing was expected from the knowledge it imparted except the power of working miracles; and all that did not lead to this result was regarded as unworthy of attention. From such a course, the consequence could only have been the acquirement of a partial knowledge, accompanied with great ignorance in other respects; and, instead of a science, whose connected parts so depend upon, and suggest one another that the unity of the whole effectually preserves the details from oblivion, every fact held an isolated position, and ran the risk of

* About two hundred years ago a book was published, shewing that learned works should be written in Latin, and not in French; because, says the author, great evils have resulted from the communication of the secrets of science to the people.—Belot. *Apologie de la langue latine, etc.* 1637.

† *Discours sur la manière de traiter l'Histoire naturelle.* Œuvres de Buffon, tome 1. pages 52, 53.

being altogether lost, a danger rendered more probable every day by the increase of mystery.

If any one can remain sceptical regarding these facts, he may convince himself by reference to the analogy displayed in the progress of Alchemy prior to the rise of true Chemistry. We have there a type of the empirical manner in which the sciences were studied, cultivated, and fostered in the ancient temples. The priests searched after, and sometimes produced, astonishing phenomena; but, neglecting the theory of the processes, and preserving no record of the means employed, they rarely succeeded twice in obtaining the same results. Their great object was to conceal the processes, and to retain exclusive possession of their secrets. But what is now less valued than their labours, or less known than their discoveries? It is difficult to cite an example more ancient than eighty years back. A Prince, San Severo, occupied himself with some success in chemical experiments, at Naples: for example, he had obtained the secret of penetrating marble with colours in such a manner, that in cutting plates from it, each newly exposed surface presented a repetition of the coloured figures designed on the exterior.* In 1761, he exposed human skulls to the influence of various reactives, and subsequently to the heat of a glass-blower's furnace, but kept so careless an account of the processes, that, from his own acknowledgment, he could not hope to arrive at the same result a second time. The product of the last-mentioned experiment was a vapour, or gas, which became illuminated at the approach of flame, and burnt several months in succession, without any apparent

* Grosley. *Observations sur l'Italie*. tome III. page 251.

diminution of the materials, (the parts lost by evaporation were more than replaced by the combination of oxygen during the combustion.) San Severo imagined that he had found the secret of inextinguishable lamps; but he would not divulge the process, lest the vault, in which the Princes of his family were inhumed, should be deprived of the distinguishing mark with which he hoped to honour it, namely, that of being lighted by an everlasting lamp.* Had he laboured like a philosopher of the present day, the name of San Severo would have been linked to the important discovery of the existence of phosphorus in bones; for it was undoubtedly the slow escape of phosphorus, in a gaseous form, that caused the phenomena he obtained. But he operated like a Thaumaturgist, and his name is forgotten with his works; while science gives honour to Gahn and Scheele, who eight years later, in 1769, established the fact, and published the process by which phosphorus might be eliminated from bones.†

The comparison drawn between the early labours of

* See the four letters written by him on the subject, translated into English, by Charles Hervey.—*Letters from Italy, Germany*, etc. vol. III. page 408—436.

† Bones are composed of phosphoric acid, lime, and some animal matter. In order to procure the phosphorus, the bones are calcined, then ground to powder, and acted upon by sulphuric acid, which takes away a large portion of the lime, and leaves the remainder combined with a large portion of phosphoric acid. This super-phosphate is then dissolved in water, and, after the evaporation of the solution, the residue is distilled with charcoal, which abstracting oxygen, the acidifying principle, from the phosphoric acid, phosphorus is formed, and distils over into the receiver, which contains water kept cold; and in which it congeals.—Ed.

modern chemists and those of the Thaumaturgists, fails, perhaps, in one important point. While the former were free to choose the objects of their researches, it is doubtful whether, in the temples, the same liberty was allowed to the latter. We are led to this conclusion by an obscure and very curious passage in Damascius.* At Hierapolis in Phrygia, the temple of Apollo was placed near a cavern abounding with hot springs; whence arose dangerous exhalations, which extended to a great distance, and into which the initiated alone could enter with impunity. One of them, Asclepiodotus, by the combination of various substances, succeeded in producing a gas resembling that of the sacred cavern.† "Thus despising, and rashly violating the laws of the priests, and the precepts of the philosophers." Such are the expressions of Damascius, and in quoting them, may we not exclaim, how powerful and how awful must have been the vow of secrecy required of the priests and the philosophers; since in the sixth century of the Christian era, we find Damascius still employing a term of reproach in recording the scientific imitation of a natural phenomena, exalted into a miracle by the spirit of Polytheism!

Thus knowledge, straitened in action, was concentrated in a small number of individuals; deposited in books,

* Damascius, *apud Phot. biblioth.* cod. 242.

† It is probable, that this vapour was sulphuretted hydrogen gas, which can be artificially produced by acting on iron pyrites, with water, aided by sulphuric acid; and which although extremely dangerous to persons introduced for the first time into a concentrated atmosphere of it, yet becomes innocuous to those who are gradually accustomed to breathe it.—Ed.

written in hieroglyphics, or in characters legible only to the adept; and the obscurity of which was further increased by the figurative style of the sacred language. Sometimes, even the facts were only committed to the memory of the priests, and transmitted by oral tradition from generation to generation. They were thus rendered inaccessible to the community, because philosophy and chemistry, being destined to serve a particular object, were scarcely heard of beyond the precincts of the temples; whilst the development of their secrets involved the unveiling of the religious mysteries. The doctrines of the Thaumaturgists were reduced, by degrees, to a collection of processes, which were liable to be lost as soon as they ceased to be habitually practised. There existed no scientific bond by the means of which one science preserves and advances another; and thus the ill-combined doctrines were destined to become obscure, and finally to be extinguished, leaving behind them only the incoherent vestiges of ill-understood and ill-executed processes.

A condition of things, such as then existed, we do not scruple to say, is the gravest injury that can happen to the mind of man, from the veil of mystery cast by religion over physical knowledge. The labours of centuries and the scientific traditions derived from the remotest antiquity, are lost in consequence of the inviolable secresy observed respecting them; the guardians of science are reduced to formularies, the principles of which they no longer understand; so that, at length, in error and superstition, they rise little above the multitude, which they too long and too successfully have conspired to keep in ignorance.

Let us now quit the enlightened caste, which, from its own act, gradually ceased to merit so high a title, and place ourselves for a while among the credulous multitude, whose information was confined to the fact, that the sublime art of working miracles was preserved, and incessantly practised in the depths of the sanctuaries. Ignorance, superstition, and the love of the marvellous, were found to exert an unlimited influence over the greater number; there was nothing that might not be hoped for, or feared from these sources. But in some more energetic minds, curiosity, cupidity, and pride, awakened the wish and the hope of being able to penetrate the mysteries. This desire rather favoured than injured the interests of those in authority; they, therefore, neglected no means of encouraging it by amusing credulity, and by holding out exaggerated promises. To the existence of the hope they were no strangers; and they so managed, that deceitful information, erroneous indications, and false explanations, should reach the ear of the uninitiated, and mislead the profane, who might, perhaps, by persevering researches, or by some favourable chance, possibly stumble on the discovery of some of the sacred mysteries.

Let us again analyse the correctness of these ideas by experience. To say that chemistry, and astronomy owe their birth to alchemy and astrology, and are thus, the wise daughters of foolish mothers, is to judge falsely of the progression of the human mind. One child, Astronomy, gazes on the stars as they shine in the heavens, without imagining that they possess any influence over the course of events passing on earth: the other, Che-

mistry, admires the colour and the brilliancy of a piece of gold or silver; and, if he is not misled, will no more imagine that it is within the range of art to fabricate a metal than to create a piece of wood or a flint. But when a people, acquainted only with the native gold deposited in their rivers, saw this metal extracted from a body displaying no outward indication of its presence, the belief was natural that various substances were capable of being transmuted into gold by means of a peculiar process, of which a few superior beings alone possessed the secret. The knowledge of such a wonderful art being passionately desired by the avaricious, caused attempts and inquiries to be multiplied and brought to bear on all the metals, on all the minerals, and on all the various bodies in nature; and thus Alchemy arose out of the ignorance of true science. From the observations of the stars, the return of the seasons, and several meteorological phenomena were predicted by the priest.* He regulated agricultural labours in a rational manner, and foretold its probable success with tolerable exactness. The ignorant men, therefore, under his direction, set no bounds in their own minds to the power of science; and doubted not that the futurity of the moral world, as well as that of the physical, was to be read on the face of the starry heavens. In this mistaken idea, they were not undeceived by the priest; and, from the remotest times, astrology has held

* The two calendars of Ptolemy were regulated, one according to the Egyptian, the other according to the Roman months; and the Roman calendar, taken from Ovid, Columella, and Pliny, indicated diurnally the state of the heavens, and predicted that of the atmosphere.

a place among the sacred sciences; and over a portion of Asia it still preserves the empire which it long exercised over the whole earth.

One cause, already referred to, concurred in the progress, or in the birth of error; this was the fallacious interpretation of emblems and of allegories. From the earliest times, both have been taken into the service of astronomy. Do not the Egyptian dynasties, cited by Manethon, apparently belong to the domain of history? Do not the epithets, also, which follow their names refer to men? For instance, "*Friend of his friends.*" "*A man remarkable for the strength of his limbs.*" "*He who increases the power of his father.*" Yet, in these pretended Kings, Dupuis distinguishes the thirty-six decades which divide the Zodiac into periods of ten degrees each; and, in the titles given to them, he sees the indication of astronomical phenomena, corresponding to each decade.* Under the titles of Barbaric, Persian, or Indian spheres, Aben Ezra† has collected and published three ancient calendars.‡ The first, believed to be that of Egypt, simply indicates the rising and the setting of the constellations in each decade. The second combines with this indication various allegorical figures. The third presents similar figures, and occasionally attributes

* Dupuis, *Origine de tous les cultes*, tom. XII. (in 8vo.) pp. 116—126.

† Aben Ezra, or Abraham ben Moir ben Ezra, was a learned Jew of the 12th century, who spent a considerable portion of his life in travelling, and was in England in 1159. He wrote a Commentary on the Old Testament, besides Treatises on Mathematics, Physics, Astronomy, and Medicine.—ED.

‡ J. Scaligeri, *Notæ in M. Manilium*, pp. 371—384.

to them sentiments which cannot be rendered by the pencil, such as the intention to assassinate a father, or of returning home. The basis of the three calendars is the same; but the last, viewed alone, awakens ideas utterly irrelevant to Astronomy. That similar allegories, distributed over certain portions of time, may have appeared to contain predictions referring to each of these divisions, is highly probable. If we examine an Egyptian calendar, this probability will be changed into certainty;* for, in one column we find, corresponding to each degree of the Zodiac, an emblem intended, as the title announces, to indicate the corresponding rising of the stars; and, in the second column, we observe the indication of the future character or destiny of any child born under the influences of such or such a degree; an indication always conforming to the nature of the emblem. Thus, if it represent a man bruising in a mortar, the child would prove laborious; but if an eagle was the sign, he would rise high, and be of an ambitious character.

This calendar is evidently the joint production of two labourers: the one has arranged a series of astronomical emblems from previous observations; the other, deceived or the deceiver, has striven to divine the meaning of a book, which he did not understand, or to lead into the paths of error those who attempted to explain its meaning.

We are too ignorant of the interior philosophy of the school of Pythagoras, to decide whether this sage professed in its literal, or in its figurative sense, the strange

* *Monomœriarum ascendentes*, etc., J. Scalig. *Not. in M. Manil.* pp. 487—504.

doctrine regarding the properties of numbers ascribed to him.* But we conceive the doctrine itself to have been at first the allegorical veil, and at a later period the superstitious envelop of a real science; a science, the vestiges of which may still be traced, in Hindostan, where Pythagoras had promulgated his dogmas; and which, along with the bases of great astronomical calculations, in all probability, comprehended the principles and theories of a sublime arithmetic.

The somewhat recent discovery of a fragment of this science tends to support our conjecture.

Towards the end of the 17th century, the French astronomers learned with surprize, that there existed in Siam a mode of calculating eclipses by successive additions, worked upon numbers in arbitrary appearances. The key to this method has been long lost by those who make use of it, perhaps, indeed it was never possessed by them,† the inventor having applied his genius to the construction of an instrument infallible in its results,

* When we reflect upon the just and sublime notions of Pythagoras, respecting the motion of the earth, and the nature of comets, we cannot avoid regretting that he should have entertained and taught the extravagant and fanciful speculations on numbers and harmony which are ascribed to him.—Ed.

† The great Tables of Logarithms published, at Paris, by the "*Bureau du Cadastre,*" had been calculated by a method similar to this. It was also a succession of additions and of subtractions, worked on numbers, in arbitrary appearances, by men who were not under the necessity of knowing the elements and the march of the calculation necessary to determine these numbers; and who, nevertheless, arrived at such precise results, that after the determination of a hundred logarithms, the possible error affected only the eighth decimal fraction.

while he refused to reveal the principle of its action. However that may be, let us suppose a similar feeling to actuate the philosophers who operated, before the eyes of the people, in ancient Asia, in Egypt, and even in civilized Greece. With the aid of numbers, combined according to the principles of a hidden science, it may be seen that they arrived at prognostications, and uttered predictions, which nature could not fail to verify on the day and at the moment indicated. Forced to attribute to these numbers the property, which in fact they possess, of producing correct predictions, how could the ignorant man refrain from ascribing to them other properties, and apparently not more marvellous qualities? He demanded from them, as from the courses of the stars which they served to measure, revelations of the future, and consulted the Babylonish numbers* with respect to his fate in life, as well as the nature and the moment of its termination. It is not without interest to observe how the theory of the mysterious properties of number pervades, in the same manner as in astronomical allegories, the instructions of magic. We are told that, among the spirits of darkness, the magicians enumerated seventy-two princes (six multiplied by twelve), and 7,405,926 demons of an inferior rank.† This last, apparently absurd number, is the product of six multiplied by 1,234,321. Is it necessary to draw observation to the fact, that 1,234,321, taking it right and left, gives the

* . . . . . neu Babylonios
Tentaris numeros . . . . . ."
Horat. *Od.* lib. I, od. XI. vers. 2, 3.

† J. Wierius. *De Præstigiis,* etc.

four numbers constituting the mysterious Tetractys of Pythagoras and of Plato?

The divining rod naturally shares the miraculous fame of Numbers; and the *Rhabdomantic* art, or divination with the divining rod, was held in honour, wherever variously marked pieces of wood served as arithmetical machines. Very complicated calculations were made with pieces of wood by the Khivans, who were much inclined to believe in the Rhabdomantic art.*

The Rhabdomantic art was practised among the Alani and the Scythians,† the ancestors of almost all the present inhabitants of Tartary; and also by the Chaldeans, from whom the Hebrews appear to have borrowed it.‡ Such being the case, it is unreasonable to suppose that this method of divining with this rod, which cannot be explained even by those who now employ it, may not be traced back in Asia to an antiquity as remote as the superstition to which it has given rise.§

* N. Mouraviev, *Voyage en Turcomanie et à Khiva.*

† *Herodot.* lib. IV. cap. LXVII.; *Amm. Marcell.* lib. XXXI. cap. II. The ancient Germans also made use of it. Tacit. *German.* cap. X.

‡ *Hosea,* chap. IV. verse 12. "My people ask counsel of their stocks, and their staff declareth unto them."

§ The divining rod was also employed as a curative agent; and passing a child through a cleft ash tree is still, in Suffolk, believed to be a remedy for rickets, ruptures, and many other diseases. The stem of a young tree is split for the purpose, and the child thrice passed through the cleft, which is then bound up; and "the impression is that, as the tree heals of its wound, so will the child's ailment be removed.[a] This ceremony was once performed in the garden of my excellent friend, Major Moor, the

[a] Moor's *Oriental Fragments*, p. 508.

It has been truly remarked, that ignorance almost universally places error at the side of that which appears miraculous. By local applications, medicine has often allayed, and even prevented, the return of pain in a limb. But the physicians belonging to the sacred caste led the multitude to believe that the efficacy of the remedy depended entirely on the hand that administered it, and which alone could imbue it with its healing virtue. In consequence of the belief in this doctrine, the charlatan was supposed by the credulous to impart to these beneficial substances, not only the power of curing existing diseases, but the influence of preserving them from those which were likely to occur in future. From this successful application of local remedies, sprung the belief of the supernatural properties assigned to amulets or talismans.* Here controversy again played a

author of the "Hindu Pantheon," at Woodbridge, in Suffolk. On the bank of the Lake of Killarney is a natural cleft tree, through which people are once or more passed. Croker, in his Legends of the Lake, does not overlook this superstition :—"It is called the eye of the needle."—"Sure your honour will thread the eye of the needle —every one that comes to *Innisfallen* threads the needle," said Plunket, the Cicerone of Killarney.—"Pshaw!" said I, "I shall never be able to squeeze through that hole—I am too fat—besides, what's the use of it?"—"The use, Sir? Why it will ensure your honour a long life, they say. And if your honour was a lady in a certain way, there would be no fear of you after threading the needle."[a]—Ed.

* The term Amulet is Arabic, and implies anything suspended. Thus, a stone, a morsel of amber, a bezoar, a plant, an animal, a piece of written parchment or paper, hung upon any part of the body, in the belief that it is capable of preventing disease, or

[a] *Legends*, p. 70.

part:—figures borrowed from it are traced on many of these amulets; the most celebrated, the *Abraxas* which is said to derive its virtue from the chief of the good geni, simply expressed the number of the days of the year.

counteracting poisons, warding off witchcraft, or any evil which is likely to attack the wearer, is an amulet. The faith reposed on amulets was universal in the ancient world, and the belief in them has outlived most of the olden superstitions. In our time, the anodyne necklace, which consists of beads turned out of the root of the white Bryony, and which is hung round the necks of infants, in order to assist their teething, and to ward off the convulsions sometimes incident to that process, is an amulet. In Turkey various kinds of amulets are still generally worn; and in Greece, at the present time, the priests sell to the sick, amulets which are pieces of triangular paper, containing in writing the name of the disease under which the sick man is labouring; and which are attached to the door of the sick chamber.

In ancient times amulets were of two kinds, namely, *natural* and *artificial*. Among the former, Pliny says that any plant gathered on the bank of a river before sunrise, provided the person who gathers it is unperceived, and tied on the left arm without the patient knowing what it is, cures ague, and is an amulet.[a] Beads of selenite were worn as necklaces by women, and even tied to trees, to make them fruitful.[b] In India, many stones and gems are used as amulets. The Turquoise is supposed to avert the evil eye; but the most remarkable is the *Salagrama*, which is about the size of a billiard ball, of a black colour and usually perforated as if by worms. It is supposed to be found only in the Gandaki, a river in Nepaul, which according to the followers of *Vishnu*, flows from the foot of that Deity; but, according to the Saivas, from the head of *Siva*. The fortunate possessor of this stone, preserves it in a clean cloth, from which it is frequently taken and bathed, and perfumed. The water with which the ablution is

[a] Pliny. *Hist. Nat.* xxiv. 19.

[b] *Dioscorides*, lib. v.

Faith in talismans survived the ancient forms of worship. Even under the dominion of Christianity, an unenlightened piety tended to foster it. It is related by M. Tiedmann,* that three Agnus Dei, with verses † expressing their magical virtues, were sent to the Emperor of Constantinople by Pope Urban V. After such an instance, can one blame the ignorant who put their faith in the talismans of the magician? Wherein lies the difference, except in the mode of consecration!

Why did the Scandinavians attach to verse the idea of a magical power? ‡ Why did the Greeks and Romans believe in the power of songs and verses to cause the

performed, acquires a sin-expelling potency, and it is, therefore, drank and greatly prized. The *Salagrama* possesses many other mysterious powers; and in death it is an essential ingredient in the *viaticum*. The departing Hindoo holds it in his hand, and, through his confidence in its influence, hope brightens the future, and he dies in peace.

Many amulets are believed to possess the power of warding off the blow of the king of terrors: but Lucillius, in one of his epigrams, describes a sick man who, having seen a certain physician in a dream,

. . . . Awoke no more,
Although an amulet he wore.

The galvanic rings now worn as protections from rheumatism; and the camphor bags, as guardians of female virtue, are amulets. Thus we are told that in 1568 the Prince of Orange condemned a Spanish prisoner to be shot at Juliers. The soldiers tied him to a tree, and fired, but he was invulnerable. The soldiers therefore stripped him, to see what armour he wore, but they found only an amulet bearing the figure of a lamb. This was taken from him, and death followed the first shot aimed at him.—Ed.

* Tiedmann. *De Quæstione*, etc., p. 103.

† These verses have been quoted by Fromann, p.p. 947, 948.

‡ C. V. de Bonstetten. *La Scandinavie et les Alpes*, pp. 42—53.

destruction of dangerous reptiles, and to draw the moon from the vault of heaven? * We reply that magical formularies were originally couched in verse, in a similar manner as the principles of policy, and of morality, and religious and historical narratives; and these verses were always chanted. The Theurgists, deriving their ceremonial rites from the Egyptian priests or from the disciples of Zoroaster, did not hold this opinion. They were ignorant whether some had or had not expressed themselves in verse; they were certain that others had not done so; and poetry was prohibited by the religion of Egypt, as being the language of fiction.† Modern sorcerers have not ascribed magical powers to verse; but they find virtue in absurd figures, strange characters, and words of uncouth pronunciation.

In the hands of men who either had never been in possession of, or who had no knowledge of hieroglyphics, or of sacred language and characters, the greater proportion of the magical formularies became useless; yet nevertheless, though they had ceased to be comprehended, the remembrance of their powers was not forgotten. Even when meaning was no longer attached to the terms mysteriously recited, or those graven on stones, or written on parchment, perhaps a greater reverence was conceded to them because their origin and the measure of their real virtue were not suspected.

It is thus that errors arise, and become extended. The Hindoos affirm that "each letter is governed by an angel, an emanation of the virtue of God's omnipotence; and these angels are represented by the letters which

* Virgil. *Eclog.* VIII. v. 69—71.

† Dio. Chrysost. *Orat. de Ilio non capta.*

compose the oration, or form of incantation, by which miracles are to be wrought.* With what facility, aided by such a doctrine, has the impostor been able to defraud the credulous in the sale of amulets; some composed of the letters expressing a prayer, or a vow; some inscribed with strange or absurdly grouped characters; their efficacy, indeed, becoming greater in proportion to the complicated and extraordinary aspect of the writing." †

A missionary,‡ having written a vocabulary of the native language in Louisiana, frequently referred to it, in order to answer the questions of those who addressed him. The natives believed this paper to be a spirit, which communicated to the missionary all his know-

* *Les Mille et une Nuits*, tome 1, pp. 128, 129 (14e *Nuit.*) *Hist. du Brame.* Pad. Manaba.

† The word *Abracadabra,* written as below, is still employed to cure agues, by what the ignorant call a charm, and in which they have the utmost confidence:

A b r a c a d a b r a
b r a c a d a b r a
r a c a d a b r a
a c a d a b r a
c a d a b r a
a d a b r a
d a b r a
a b r a
b r a
r a
a

Indeed, such is the influence of the imagination over the body, that the sincere belief of the credulous in the efficacy of this charm, is adequate to effect a cure.—Ed.

‡ P. Hennepin. *Description de la Louisiane,* pp. 249, 250.

ledge. The Nadoëssis are, though able to count, ignorant of ciphers. Carver,* opening a book before them, told them exactly how many pages there were between the beginning and the page which he showed them; they immediately concluded that the book was a spirit, which dictated answers to the traveller. At Kano, in Africa, Clapperton met with a person who believed that the traveller had the power of transforming men into beasts, and the earth into gold, simply by the act of reading a book.† The Runic letters‡ were numbered with other magical agents, so soon as this species of writing was lost to the vulgar. An algebraic formulary would be similarly regarded by the superstitious, if they beheld an undeniable solution, to questions apparently widely different, furnished by its aid; and in which they could not discern the point, common to all, which the science had seized upon.§

The extravagance of credulity causes steps still

* Carver. *Travels in South America.*

† *Travels in Africa,* etc. vol. III. p. 37.

‡ Runic letters constituted the ancient alphabet of the Teutonic and Scandinavian tribes. It consisted of sixteen letters, which are supposed to have been of Phœnician origin. They were cut on stones; and those specimens of them which remain, have much similarity to the portions of wood, or sticks, which were anciently employed in casting events by the Germans; and in this similarity, most probably, originated the magical properties ascribed to the Runic letters.—Ed.

§ The notation of music would undoubtedly appear supernatural to a people having no idea of it, were a man to repeat exactly one of their songs which he had never heard before, but which he possessed the power of noting down.

more surprising than those already mentioned to take place. In the provinces situated to the east of the Baltic, which by force of arms and political stratagem have been united to the empire of Russia, it is firmly believed, that if a woman with child introduces a piece of wood into the stove, in a direction opposite to the growth of the branches, the infant will be presented in an unnatural direction at the moment of birth.* Sometimes the credulous man, ignorant of hieroglyphics, has believed that, by imitating, as far as he could do so, the postures represented in the hieroglyphics, he could work the apparent miracle which, at an unknown period, was obtained by the process described by them. Of this we find several examples in the collection of Gaffarel.†

We believe it is allowable to refer to error, or to reveries of this nature, the origin of universally held or popular opinions, sometimes so strange and so absurd, that we can neither divine their meaning, nor assign to them a plausible pretext or motive. Causes, with respect to the nature of which men have been always profoundly ignorant, have exerted, and continue to exert an influence over their existence.

* Debray. *Sur les préjugés et les idées superstitieuses des Livoniens, etc.* Nouvelles Annales des Voyages, tome XVIII. p. 127.

† Gaffarel, *Curiosités inouïes,* etc. chap. VII. § 1 et 2.

## CHAPTER IX.

Notwithstanding the rivalry of religious sects, the spirit of a fixed form of civilization existed—Mystery in the schools of philosophy was ultimately banished by the influence of more perfect civilization—In the first epoch there was an habitual communication of the Greeks with the successors of the Magi, who were dispersed through Asia after the death of Smerdis—First the revelation of Magic—Second, the impoverishing of Egypt, after the conquest of the Romans caused priests of inferior grades, who trafficked in the secrets of the temples, to abound in Rome—Third, the polytheists who were converted to Christianity, carried into its bosom the knowledge of the magic which they possessed—In the second epoch, the remains only of the sacred science existed; first, in the schools of the Theurgian philosophy; secondly, in the possession of wandering priests, and, above all, of Egyptian priests. As successors to the former may be assigned, with much probability, the secret societies of Europe; to the latter, the modern jugglers.

THE mystery which had enveloped the sacred science, like the type of civilization, of which it was one of the principle foundations, has submitted to the power of time: the veil is torn from it; the statue of Silence, seated for so many centuries before the door of the sanctuaries and of the philosophic schools, has been overthrown.

We may inquire, when was this revolution effected? Was it when rival religions were at war with each other; before the inflexible Zoroaster and his successors, and the worship of fire, and Sabaism,* and the adoration of Siva, Vishnú, and Bramah, had received a check? I reply, no. Persecuted as magicians, the Hindoo and the Chaldean priests carried their sacred arts and their inviolable silence into exile.

The invasion of the Hebrews had dispersed the pagan priests of Canaan,—Moses having declared sentence of death against whoever should declare oracles, or work miracles, in the name of a strange God. But the entire conquest of Palestine was but slowly achieved. The Hebrews, unfaithful to the law, and living among indigenous tribes, often consulted the priests and the diviners of their neighbours. The diviners, in particular, were renowned, and even revered; and, when they died, bequeathed their secrets to adepts only, who often found in them a source of wealth and of profit, if not the means of obtaining power. Their last successors may be recognized in those whom Saul persecuted with so much zeal, that, when he fell himself into the error from which he had wished to preserve his people, he with difficulty

* The word, correctly written, should be Tsabaism. It was a religious system prevalent to a great extent in Arabia, in which, although one supreme Deity was acknowledged, yet adoration was paid to all the stars, or the lower divinities supposed to reside in them, and to aid in governing the world. Their religious books were written in Syriac. Their fasts and prayers were numerous; they believed in future punishments for the wicked, but, at the same time, that after 4000 years they should be pardoned.—Ed.

found a woman who professed the art of invoking the shades of the dead.

In Judea, these pretended prophets were divided amongst themselves, and were at variance with each other; some espousing the rival claims of Jerusalem; others those of Samaria; but neither anathema nor persecution could unveil the sources from which their inspirations flowed in the time of need.

The fierce Cambyses, in killing Apis, insulted the supreme God of Egypt, typified by that sacred bull. He condemned the priests and the worshippers of Apis to the torture, and despoiled the temples. He died, leaving behind him an execrable name, without having, notwithstanding so much violence, struck one blow at the religious mysteries of the sanctuaries.*

The spirit of the fixed type hovered over the theatres

* This conqueror was well aware of the height of superstition which enslaved the people whom he sought to subdue. It is even said that, knowing the veneration in which the dog and the cat were held by the Egyptians, when he attacked Pelusium, he placed a number of these animals in the front of his army, and by this means easily became master of the place. In his attempt to send an army of 50,000 men into Upper Egypt, in order to destroy the temple of Jupiter Ammon, his object was defeated by the overwhelming of the troops in a whirlwind of sand, a circumstance which was attributed to the vengeance of the God whose sanctuary was threatened. An oracle predicted that he should die at Ecbatana: and, by a remarkable coincidence, his death occurred at a small town of that name, from a wound which he received from his own sword, when mounting on horseback. It happened in the year 521, A.C. He left no issue; and his throne was usurped by the Magi, whom, during his life-time, he had severely persecuted. —ED.

of these diverse events, and permitted only one new light to shine in the eyes of the people, who themselves never desired anything further. For several centuries, however, a revolution of which neither the cause, the activity, nor even the existence had been suspected, was gradually taking place among the inhabitants of the earth; and which five-and-thirty or forty centuries have not been able to overturn. In the colonies, which the Phœnician navigators had founded on distant shores, they had introduced, unknown to themselves, the germ of progressive civilization. Too wealthy, and too much occupied by mercantile interests to desire to subjugate by force of arms, and too little instructed to found civilization upon religion and sacred science, they were contented to blend their own customs with those of the tribes amongst whom they settled for commercial purposes.

It may be said, that man, for the first time, then learned that the mode of life which he had received from his ancestors might be ameliorated by the result of his free will, and not by a course of blind obedience to assumed supernatural beings. Curiosity is the first effect of the desire for mental perfection; and when this is even moderately satisfied, it teaches us to appreciate the value of knowledge, and does not relax in the pursuit, from the conviction that it must be sought for and obtained from distant sources. A long voyage does not alarm the philosopher impatient to instruct himself; nevertheless, he is not always able to break the seal of mystery. The instructions obtained in India, Chaldea, and in Egypt, bound the ancient sages, as far as we can judge, to particular opinions inde-

pendent of theory. Thales, indeed, was enabled to predict an eclipse, but only one ;* and Pythagoras found, by

* There is much reason for believing that Chaldea was the cradle of Astronomy, the origin of which has been fixed at a period so remote as 2,232 years before the birth of our Saviour. The astronomical learning was obtained from Chaldea; and, in every problem of difficulty the Egyptians were forced to have recourse to the assistance of the Chaldean astronomers. But what La Place has designated as the most ancient monument of astronomical knowledge, namely,[a] the invention of the period of seven days of the week, is said to be due to the Egyptians. It is, nevertheless, remarkable, that the names of the days among the Brahmans, are the same as those in Egypt, and correspond to the same physical portions of time. Thales, who was a native of Miletus in Ionia, acquired, according to the custom of his day, the greater part of his knowledge by travelling, and was taught geometry and astronomy by the priests of Memphis. He soon, however, outstripped his instructors in the race of knowledge; and, by the mere force of his genius, invented several fundamental propositions which were afterwards incorporated into the Elements of Euclid. There is little doubt that the true doctrine of the motion of the earth was promulgated in the schools of Thales and Pythagoras; and it is equally certain that Thales introduced into Greece the prediction of solar eclipses, and the explanation of their real cause;[b] although it has, with much probability, been supposed that the method of working the problem was borrowed from the Chaldeans, who were enabled to arrive at it by an extensive series of observations, conducted with great care and regularity, which they possessed. Thales also corrected the Greek calendar, and determined the length of the year to be 365 days. He died in the 96th year of his age, about 548 years before Christ; one proof, among a thousand, that the exercise of the mental energies is favourable to longevity.—Ed.

[a] *Syst. du Monde*, l. v. c. 1.

[b] Plutarch, *de Placit. Philosoph.* l. ii. p. 24.

force of genius alone, the demonstration of the theorem that had been revealed to him, of the equality of the square of the hypothenuse to the sum of the squares of the two other sides of the rectangular triangle. Philosophers, besides, looked upon themselves as the initiated; the pride of exclusive possession exalted them like their institutors: and the disciples of Pythagoras received his revelations, not in proportion to their capacity, but according to the elevation in rank to which they had attained in a doctrine, which, like the initiations, had its prefixed duration, its language, and its proofs. It was only by gradual steps, and by the exterior influence of progressive civilization, that the same discretion which regulated the temples ceased to govern the schools of philosophy.

Thus, even in those countries where protecting civilization showered down its blessings abundantly, where the cultivation of the art of writing and the sciences opened the way for brilliant fame, the doctrines of the sanctuaries and the Occult Science, that had emigrated from Thrace or Egypt, remained impenetrable. The priests maintained around them the most profound obscurity, the density of which was proportioned to the power and the veneration which they could obtain.

Demosthenes is the first author who noticed the existence of sorcerers in Greece.* At that time Occult Science had ceased to be centered in the temples; and some shreds of it had fallen into the hands, of pro-

* Demosthen. *in Aristogit.* 1; M. Tiedmann. *de Quæstione*, etc., p. 46.

fane and obscure men, who were complete strangers to the sacred mysteries, and who had dared to profess the art of working miracles. We must retrace more than thirty-five lustres, and recal to recollection one of the most remarkable events of ancient history, the massacre of the magi, after the fall of Smerdis,* in order to assign the cause of this fact. This sacerdotal tribe, very numerous and very powerful, could not be entirely annihilated. It was dispersed, without doubt, to all parts; and when the political views of Darius made him anxious to re-assemble it, we may believe that all the Magi were not equally desirous of becoming the supporters of the assassin. To these fugitives, successors were often found amongst men born in a period of higher civiliza-

* Smerdis was the name of the brother of Cambyses, who was privately put to death by the order of that monarch, and who was represented after his death by an impostor of the same name, who greatly resembled him in person. This Smerdis, the impostor, was one of the Magi, and the person referred to in the text. He had been deprived of his ears by Cyrus, on account of some atrocity which he had committed. On the death of Cambyses, he usurped the throne, under the cover of his resemblance to the real Smerdis, whose death was only known to him. The fraud, however, was suspected, and discovered by Phædyma, one of the wives of the late monarch, who, at her father's request, took an opportunity of examining the head of the usurper when he was asleep, and ascertained that he had no ears. A conspiracy was immediately formed, which accomplished not only his destruction, but terminated in the massacre of the Magi, and the elevation of Darius to the throne of Persia. The term Magi is of Greek derivation, and implies men devoted to study, and meditation; but my friend, Major Moor, suspects it is derived from the Sanscrit Mahaji, and means great, or wise men.—Ed.

tion, especially amongst the Greeks, scattered over the vast empire of Persia, as commanders and soldiers in the auxiliary troops of Darius, Governors of his provinces, and active agents of commerce in his ports, who, in the centre of Asiatic Greece, and under the yoke of the great King, maintained both the culture and the idiom of European Greece, with the spirit of perfectible civilization.* To these they transmitted their hatred and their secrets.

The subsequent events, and the war of Cyrus the younger against Artaxerxes, above all, the ascendancy which the King of Persia had obtained over Greece, both during and after the Peloponesian war, had increased the intimate communication between the Greeks and the interior of the empire. They admired the wonders performed by the Magi, and from the name of these priests they gave the title of *magic* to the art of working miracles; and this title soon became sufficiently celebrated for Euripides to impose it on the celestial inspiration with which Orpheus had been animated. The Greeks in Persia, both curious and rapacious, drew near to the proscribed Magi and their descendants, and profited, without doubt, by the frequent

* A powerful evidence supports our assertion. If the poem attributed to Phocylides, was really written by that author, and in which he says, "Abstain from the books of the Magi," (verse 138.) He was born at Miletium, in Asiatic Greece, 637 years before our era. According to Suidas, Phocylides must have written his moral precepts at a mature age, and consequently when the fugitive Magi were twenty or thirty years in communication with the Greeks of Asia.

occasions that they had of instructing themselves;* so that, on returning to Greece, they were enabled to carry on a lucrative trade, by employing the secrets they had acquired for the purposes of vengeance and wickedness.†

The conquests of Alexander established the power of the Greeks over those parts of Asia, where every temple had its peculiar mysteries; whilst the numerous priests of Phrygia and of Syria threw open their sanctuaries to the conquerors, and were eager to initiate them into their creeds.

The second Idyl of Theocritus presents a picture of a conjuration, or enchantment, worked by an ordinary female, thus showing that the use of magic had, long before that period, been practised by the Greeks. The Idyl concludes with the threat of poisoning which it is the object of the magical incantation to effect.‡ The simple idea is thus succeeded by one of superstition; and the language peculiar to the temples in the expression of

* The communications of the Magi with the philosophers of Greece soon became frequent. Plato, in one of his dialogues, (*in Axiocho*), introduces the Magus Gobry as revealing religious secrets to Socrates.

† One learned man whom I have already mentioned, M. G. C. Horst, states, in his *Bibliothèque Magique*, and has proved, that Italy and Greece received from Asia, and from the followers of the *two principles* (that is to say, the worshippers of Ormusd and his opponent Arhiman), the magic doctrines which were gradually blended with the ancient mythology, founded in both countries upon the worship of divine nature. It will be seen that this opinion relates to the time when the doctrines of magic had penetrated into the temples, an epoch much anterior to the period when the magic arts ceased to be concentrated there.

‡ Theocrit. *Eidyll.* II. v. 160.

the fact which alone had been employed by the Greeks before their intercourse with a people, governed by the depositaries of the Occult Science. An atrocious crime was, therefore, no longer to be regarded as the work of man, but as the result of the intervention of supernatural beings. In the same manner, Theocritus transforms Agamede, a woman, celebrated for her knowledge of medicine, into a sorceress.

The religion of Egypt, which Cambyses had attacked in vain, and which had never been disturbed by Alexander,* was preserved, and honoured by the Ptolemies;

* The peaceable possession of their religion, and the sacred mysteries, which Alexander conferred upon the Egyptians after his conquest of Egypt, arose, in a great measure, from the adulation paid by the priests to the conqueror. On visiting the temple of Jupiter Ammon, he bribed the priests to salute him as the son of their God; and, through their influence, his army was induced to pay him divine honours. It is also well known that, after he overcame Darius, he ordered himself to be worshipped as a God; and when Callisthenes, a philosopher of Olynthus, who accompanied him as a preceptor in his Oriental expedition, and to whom he had been recommended by Aristotle, refused to degrade himself by obeying this command, the unfortunate philosopher was accused of a conspiracy, mutilated, exposed to wild beasts, and dragged about in chains, until Lysimachus relieved him of his persecutions by giving him poison. We can readily conceive that an individual spoiled by a successful career of glory, such as fell to the lot of Alexander, and elated with such a degree of pride as led him to assume divine honours, would not only protect but warmly patronize a fraudulent priesthood, who might aid in securing the object of his ambition. The most curious fact in the history of this great and bad man, is the part which the priests most probably played in causing his death, which occurred exactly as the Magi had predicted, on his entering the city of Babylon, after his

and, as masters of Egypt, the Romans allowed it to reign in peace over their new subjects. But external wars and internal feuds had ruined the people, and impoverished the temples. The ancient religion of the country, like the country itself, languished under the influence of a foreign yoke. The priesthood was no longer the first body in the state: it had lost too much of its dignity, its power, and its riches, to preserve its numerous hierarchy unsullied. On this account, oppressed by want, priests of inferior orders repaired in crowds to the capital of the world; and, to the superstition and credulity already almost predominant there, they added jugglery and oracles. The enlightened classes of the people had the same contempt for these sacred mendicants as for those who flocked from Syria and from Phrygia. Occupied with other interests of too much importance, and nourished with too independent a philosophy, the contemporaries of Cicero* and of Cæsar held the Thaumaturgian subalterns in little or no estimation.

The multitude, doubtless, still followed them, when,

Indian expedition, loaded with the spoils of the East. His death happened in the month of April, 323 B.C., in the 32nd year of his age, and was very likely the effect of poison.—Ed.

* To Cicero has been attributed the remark, "that two auruspices, or augurs, cannot pass each other in the street without thrusting their tongues into their cheeks:" but

> Faith—fanatic faith—once wedded fast
> To some dear falsehood, hugs it to the last.—Ed.

for a few pieces of money, they displayed their juggling in the public places, and engaged the attention of the people by oracles, cures, and wonderful apparitions:* but the general improvement of intellect could not fail to increase the degradation of the sacred science. The prodigies that it had formerly offered to the public veneration, now encountered many sceptics; and when a miracle is either denied or discussed, the little reality that it possesses enables the fraud to be easily unveiled. The priests, whose tact had been successful in upholding their deceptions under a fixed form of civilization, soon experienced how much their influence was lessened under a civilization which was progressive. They strove with difficulty against the latter, chiefly because its influence was founded upon an extension of knowledge. The oracles were silenced; prodigies became more rare, and the obscurity of the sanctuaries and the mysticism of superstition alike diminished, when the triumph of Christianity imparted a new impulse to the mind, and propagated a higher creed. Behold on one side, the temples destroyed; the priests dispersed; some doomed to ignominy and to indigence, and others reduced at last to traffic for their livelihood with the sacred science: and on the other side, persuasion, enthusiasm, interest, ambition, and persecution at last, causing numberless desertions from the old faith, whilst they augmented the ranks of the proselytes under the banners

* Origen. *Contr. Celsum*, lib. 1; Plutarch, *Cur nunc Pythia non edit oracula carmine.*

of the new religion; among these proselytes there were many who were ready and desirous of carrying with them those secrets of magic, which belonged to the different creeds that they had abandoned. The miracle which dispersed the workmen, sent by Julian to raze the Temple of Jerusalem, proved that the Christians also were tainted with the knowledge of the processes, which the ancient Thaumaturgists had used with such brilliant success.* Then, the old religion received a mortal blow: its adversaries could combat it

* The great efforts which the Emperor Julian made at this time to restore Paganism in all its brilliancy and power, proved unavailing; not on account of any deficiency of talent, or feebleness of energy in that extraordinary man, but because the faith which he was anxious to press was destitute of theological principles and moral precepts. It was the object of that Emperor to remedy these defects; and laws were enacted to reform morals, and to promote the practice of benevolence and charity, which he was wise enough to admire in the Christians. But this was impossible; the union of fraud and truth could never be effected; and whilst the priests of restored Paganism were selected from amongst the philosophers and Magi, who were deeply skilled in magic and divination, and who dealt openly in impostures, it was impossible to oppose the progress of the new faith, based upon truth and purity of morals. It is, nevertheless, melancholy to reflect upon the apostacy of many Christians, who, from mere prudential motives, embraced the religion of their sovereign. The crafty monarch even went so far as to dream of rebuilding the Temple of Jerusalem, which was not only "destroyed by the arms of Titus and Hadrian, but a ploughshare had been drawn over the ground, as a sign of perpetual interdiction."[a] He hoped to establish in it

[a] Gibbon's *Decline and Fall of the Roman Empire,* 2nd edit. vol. IV. p. 100.

with its own weapons, or unveil to the day the weakness of its impostures.

As long as Polytheism existed, detested but not yet proscribed by supreme authority—as long as its temples stood, or their recent ruins recalled a worship to which so many recollections were attached—the most earnest endeavour of its adversaries was to demonstrate the falsehood of its miracles, as well as the absurdity of its dogmas. But gradually the ivy and moss covered the rubbish, in the midst of which persevering zeal no longer

all the ceremonials of an imposing faith, which should eclipse those of the Church of the Resurrection on the adjacent hill of Calvary. The Jews assembled to aid this object, intent alone on exasperating the Christians, without reflecting on the ultimate aim of the Emperor. It was on this occasion, when the workmen of Julian, and the infatuated Jews, were equally engaged in clearing away the ruins of the former edifice, and founding the new temple, that an earthquake, a whirlwind, and a fiery eruption, destroyed the enthusiastic labourers, scattered the foundations of the projected edifice, and overthrew for ever the triumphs and hopes of Polytheism. Our author has raised some doubts respecting the supernatural character of this event; but it was not at the time disputed by the infidels;[a] and notwithstanding the scepticism of Gibbon, and the doubts of the pious Dr. Lardner,[b] there is not the smallest evidence to prove that it was the result of artifice or of Occult Science. "The horrible balls of fire," says Ammianus Marcellus, "bursting forth near the foundations, with frequent reiterations, rendered the place from time to time inaccessible to the scorched and blasted workmen . . . " and "the undertaking was abandoned."[c]—Ed.

[a] Gregory Nazianzen. *Orat.* iv. p. 110.

[b] *Ammianus Marcellinus*, xxiii. xxiv.

[c] *Jewish and Heathen Testimonies*, vol. iv. pp. 47—71.

re-assembled its worshippers. Habit, the course of things, and necessity, drove whole populations into the new faith: they ceased to combat that which they had ceased to disbelieve; they ceased to arm themselves against that reason which one day might extend itself beyond the end prescribed to its efforts. The remains of the sacred science then rested in the hands of two classes of men, very different from one another.

To priests of a superior order, to the enlightened disciples of the sages of Babylon, of Etruria, of Persia, of Egypt, and of Hindostan, were united the successors of the Theurgian philosophers, who, since the second century, had attempted to raise up Polytheism by transforming its legends into moral allegories, and its impostures into divine acts, effected at the commands of virtuous men, through the celestial powers. All of them together professing the ancient Polytheism less than the worship of one Divinity, which they adored under a thousand different names in different religions, opened the schools of philosophy to the Christians; who, being the friends of knowledge, believed themselves permitted to search for it. A Platonic theosophy, with austere and exalted morals, formed the foundation of the doctrines. But they revered also the memory of men who had been, in consequence of their piety, in communication, as they believed, with supernatural beings, and had obtained the gift of miraculous works. The just dread of hearing their miracles discussed, denied, or vilified, by their too powerful adversaries, re-animated the ancient spirit of mystery; and they made it a religious duty, more than ever, to be

silent on all that they still possessed of their knowledge. Synesius* bitterly reproaches one of his friends for having revealed to uninitiated auditors, a part of the secret doctrine of the philosophers.† The entire work of Lydus upon prodigies, and the passage that we have quoted from Damascius,‡ prove how far the two latter believed themselves still strictly bound by their promises of silence.§ The initiated of Memphis,‖ the disciples of

* Synesius was born at Cyrene in Africa, in the year 378. He attached himself to the school of the New Platonists, but was converted to Christianity when little more than twenty years of age, by Theophilus, Bishop of Alexandria. He was a most remarkable man, both for learning and piety; and although, after his conversion, he still retained a fondness for the New Platonism, yet, Theophilus urged him to permit him to consecrate him for a Bishopric. The entreaties of the Bishop were long resisted, on account of the affection he bore for his wife; but he at length yielded, was separated from her, and became Bishop of Ptolemais in 410. He was the author of many curious and learned disquisitions.—Ed.

† *Synes*, p. 143.

‡ Damascius, the Stoic. He was a native of Damascus, and wrote several works, some of which are now lost. Those writings by which he is best known, are four books on extraordinary events which occurred in the age of Justinian.—Ed.

§ The trace of this custom of mystery is found at a much later period. It was only in the 12th century that Tzetzes and Zonaras revealed the secret of the mirror of Archimedes, although this mirror had been employed by Proclus, at the beginning of the sixth century, to burn the fleet of Vitellius, who besieged Constantinople.

‖ Memphis situated on the banks of the Nile, near the Pyramids, was the capital of Egypt before Alexandria was built, and contained the Temple or Apis, the Ox-God, the type of Osiris, whose soul the Egyptians believed passed into the body of

the Etruscan priests could not have held a more reserved language.

In noticing the philosophic dogmas, we shall be able to follow into Greece, and then into Italy, after the capture

an ox. The great festival of this God was performed with the most magnificent ceremonies at Memphis, at the commencement of the annual inundation by the Nile, and lasted seven days. The ox, selected to represent the God, was distinguished by particular marks, which were most probably, the ingenious productions of the priests; the whole animal was black, except a white crescent, or a mark resembling the figure of a man, on the right side; and on the back, the figure of an eagle; on the forehead was a white square spot; under the tongue a knot resembling a beetle; and the hairs of the tail were double. This ox was led in solemn procession, and having made the round of the city in order that those who smelt his breath, might gain a knowledge of futurity; and, after a variety of other absurd ceremonies, he was led to the river, and if he had attained to twenty-five years of age, he was drowned, and a new Apis elected. On this occasion, although the God was purposely drowned, the priests shaved their heads as an indication of mourning; cries, and lamentations resounded through the city; and these continued until a new Apis, with all the characteristic marks, was found. This new representative of Osiris had to perform a probation of forty days, before being initiated in all his dignities; during which time, women only administered to him.

Bull and kine worship passed into Egypt, from Hindostan; and it is still retained in the East; for Siva rides upon a white bull, called Handi; and Brahmany, or *sacred Bulls*, are seen wandering unmolested in all the cities of Hindostan. But the most curious circumstance relating to Bovine worship, is the fact that it was practised in England, in the fifteenth century. Another proof among many, of the difficulty of shaking off old habits, and a verification of the remark, that the early Christians had ingrafted some of the abominations of Paganism on their ritual. Major Moor, in his Oriental Fragments p. 516, has given the following translation of a register of the monastery of St. Edmondsbury,

of Constantinople, the traces of the existing influence of the schools. This will be, however, less easy in all that concerns Occult Science: the founders of the school certainly possessed it, but its transmission is only probable.

contained in a volume entitled *Corolla varia*, by the Rev. William Hawkins, of Hadleigh, Suffolk, printed at Cambridge, 1634.

"This indenture certifies, that Master JOHN SWARSHAM, sacrist, with the consent of the prior, and convent demise and let to . . . . . the manor called *Habyrden* in *Bury*, and the said . . . . . his executors, &c. shall find, or cause to be found, *one White Bull*, every year of his term, so often as it shall happen that any gentlewoman (*mulierem generosum*,) or any other woman from devotion, or vows by them made, shall visit the tomb of the glorious martyr St. Edmund, to make the oblation of the said white Bull, etc. Dated the 4th of June, in the second year of Henry VII. (A.D. 1487)." Two other indentures nearly similar, are of the 11th and 25th of Henry VIII. Now the worthy Mr. Hawkins informs us, that when a married woman wished to make this oblation; "the white Bull, who was never yoked to the plough, nor baited, was led in procession through the principal streets of the town, to the principal gate of the monastery, attended by all the monks singing, and a shouting crowd: the woman walking by him, and stroking his milk white sides, and pendent dewlaps. The bull being then dismissed, the woman entered the church, and paid her vows at the altar of St. Edmund, kissing the stone, and entreating with tears the blessing of a child." It is not easy to say how many other equally ridiculous Pagan superstitions deformed the purity of Christianity before this period. I will mention one only at present. When Clovis, the first Christian King of France was baptised, the vial containing the sacred unction was stated to have been dropped from Heaven, into the hands of St. Remigius, then Bishop of Rheims, about the end of the fifth century; where it has ever since been preserved for the purpose of anointing all succeeding Kings. To confirm its divine descent, as soon as the coronation is over, the oil in the vial begins to waste and vanish, but is again renewed of

How many accidents might have buried it in the mystery from which it must have escaped, but for the great precautions that were observed to secure it! Some facts remain, however, to shed a little light upon this interesting problem.

The doctrines of the Theurgists, which transformed into supernatural beings and genii both those substances which serve and are made use of in experimental science, as well as the men who employed them, was entirely revived in the cabalistic doctrines of modern times.* To produce miraculous works, science also caused the genii to act, and to submit to the power of the philosopher whom she enlightened with her rays. Genii of the earth, of the air, of the water, and of fire were dispersed in the four elements which physics, at that period, considered the bases of all bodies; and have we not discovered in the gnomes, the labourers who worked mines?* The brilliant and romantic details with which a lively imagination has embellished the principles of the cabalists, do not prevent the identity of the two doctrines from being easily recognised.

It is known what sublime power is attached to OM (OUM), which designates the Hindoo Trinity, composed

itself, for the service of every succeeding coronation. By such falsehoods has the Church of Rome defiled a faith which requires nothing but the simple light of truth to display and uphold its divine origin.[a]—ED.

* The four elements were personified by *Sylphs*, *Nymphs*, *Gnomes* and *Salamanders*. The Gnomes were the evil demons of the earth.—ED.

[a] Nic. *de Brain de St. Remigio.*

of *Siva*, *Vishnu*, and *Bramah*, in pronouncing which the pious Magi are raised to the intellectual knowledge of the three united Gods. This divine name, and its mysterious energy, were again brought forth in two books of magic, published in Germany at the beginning of the sixteenth century.* We may regard these as the last link of the chains still remaining, in spite of the remoteness of countries and of ages, and in spite of the difference of idioms and of religions, a remaining link of that chain which binds to the transcendental doctrines of Hindostan the wrecks which modern adepts have preserved of them.

Of those inventions which anciently produced so many miracles, some are to be found in the writings of men whom, as being versed in the Occult Science, the middle age either admired or persecuted.† It is certain that in that age of ignorance learned men have often conveyed the charge of their knowledge to secret societies, which have existed almost in our day, under the name of Rosicrucians,‡ or under other names equally enigmatical.

* They are quoted in the "*Bibliothèque Magique*," of M. Horst.

† *Albertus Magnus, l'Abbé Trithème*, the *Franciscan Barthélemi, Robert Fludd, Roger Bacon*, &c.

‡ Rosicrucians, or brothers of the Rosy Cross, were a sect of hermitical philosophers, who first appeared in Germany, at the beginning of the 14th century.

Their chief was a German gentleman, called Christian Rosencruz, educated in a monastery, where he learned the languages.

About the close of the 14th century, he went to the Holy Land, where, falling sick, he consulted the Arabs at Damascus, and other eastern philosophers; and by them he was supposed to be ini-

One of the brightest geniuses who shed honour upon Europe and the human race, Leibnitz, penetrated into one of these societies at Nuremberg, and, from the avowal of his panegyrist,* obtained there instruction which, perhaps, he might have sought for in vain elsewhere. Were these mysterious reunions the remains of

tiated into the mysteries he professed. On his return to Germany he formed a society, to which he communicated his secrets, and died in 1484.

The whole of this account is generally regarded as fabulous. The members of the society bound themselves to secrecy, and certain rules. They professed to know all sciences, but especially medicine; and they pretended to have their traditionary knowledge from Egyptians, Chaldæans, and others. They have been called Immortals, Illuminati, Invisible Brothers, and from signing themselves F.R.C., also *Fratus Roris Cocti;* it being pretended that the philosopher's stone is concocted dew. They have been confounded with the Freemasons.

The Rosicrucians have had some respectability, because Luther's arms were a cross and a rose; and as it was assumed by chemical druggists, it was asserted to be derived from chemical signs. *Dew, ros* was esteemed the best solvent of gold; and the cross, or *crux,* is the symbol for light in chemistry. Now light, according to this sect, is rarefied gold; and thus the name arose. A Rosicrucian is one, therefore, who by dew seeks light (gold).

At the head of these fanatics was Robert Fludd, an English physician, Jacob Behmen, and Michael Mayer. They all maintained that the dissolution of bodies by fire is the only way that man can arrive at wisdom and obtain the first principles of things. They taught that there was a certain harmony in creation; that even the Deity rules the kingdom of grace by the same chemical laws as those by which he rules the kingdom of nature; and they therefore expressed religious truths by chemical signs, and various other strange incomprehensible doctrines.—Ed.

* Fontenelle, *Eloge de Leibnitz. Eloges des Académiciens,* tome. 1. pp. 464—465.

the ancient initiations? Everything conduces to the belief that they were: not only the ordeal and the examinations to which it was necessary to submit before obtaining an entrance to them; but, above all, the nature of the secrets they possessed, and the means that they appear to have employed to preserve them. Sometimes, indeed, there is found in the writings of the authors of the twelfth and thirteenth century indications of the knowledge of Thaumaturgy, and its application; but more frequently merely the remembrance of the wonders that they had formerly worked, and scarcely throwing a gleam of light on the oblivion into which the means by which they have fallen were performed.

It is thus, at least, that we are tempted to interpret these authors erroneously when they describe such marvellous works and pronounce them possible to their art; usurping the glory of having revived many of the old inventions—for example, having re-discovered, before Buffon, the burning mirror of Archimedes, of having invented the telegraph, &c., &c.; but, with their pretensions, they have not indicated the method of effecting these wonders.

Their silence, however, is not a decisive proof of their ignorance:—loving mystery, and proud of exclusive possession, they were learned but for themselves and a small number of adepts; they were silent also, or expressed themselves only in allegories.* But this silence, this love of mys-

* In the 16th century, Leopold of Austria, son of Duke Albert the Second, published a picture of the *Paranatellons des Décans*, (printed at Venice, in 1520. See Dupuis *Origine de tous les Cultes*, vol. XII. pp. 127, 128). It is an extract of the Persian sphere;

tery, are but traits of resemblance which recal the Theurgic schools, in whose bosom the expiring secrets of polytheism were deposited.

That we may assign the same origin to the knowledge possessed by the members of the secret societies, is rendered probable from the horror, the fear, and the spirit of persecution which their science inspired; feelings much stronger than if the science had been more extended. They were designated the descendants of the polytheist priests,—the ministers of those dethroned Gods who were but the genii of the wicked and of the ignorant.*

but Leopold, instead of transcribing positive indications from them, has drawn only the emblematical figures.

* The accusations against these secret societies ought not to surprise us; and although much falsehood may have been propagated respecting the views and the proceedings of the initiated, yet it should be recollected that suspicion cannot fail to be awakened where secrecy is cherished; and charges will be made that something exists which cannot be exposed to the light of day, nor to general observation. The chief secret societies in Europe have been the Templars: the Secret Tribunals of Westphalia; the Freemasons; and the Illuminati of Germany. It would be impossible, in a note, to do justice even to a slight sketch of these mysterious societies; and, therefore, I will only adjoin the initiation of an assessor, or Schöppe, into the *Fehmgerichte* of Westphalia, an institution of Charlemagne. The person to be received appeared bare-headed before the assembled tribunal, and kneeling down, with the thumb and forefinger of his right hand on a naked sword and a halter, he pronounced the following oath, after the Court, or the President of the Assembly;—

> " I promise, on the holy marriage, that I will from henceforth aid, help, and conceal the holy Fehms, from wife and child, from father and mother, from sister and brother, from fire and

Christianity having maintained powerful pre-eminence for more than six centuries, and having carried her conquests farther than the Romans had extended their empire, becoming the conquerors even of the Romans themselves, seemed to have nothing to fear except from the unceasing doctrinal dissensions springing up among her children. At length, upon an almost unknown part of the globe, a man appeared, a stranger to the resources of the Occult Sciences, in the person of Mahomet.* He had the

> wind, from all that the sun shines on, and the rain covers, from all that is between sky and ground, especially from the man who knows the law; and I will bring before this free tribunal, under which I sit, all that belongs to the secret jurisdiction of the Emperor, whether I know it to be true myself, or have heard it from trustworthy people, whatever requires correction or punishment, whatever is Fehm-free (*i.e.* a crime committed in the county), that it may be judged, or, with the consent of the accuser, be put off in grace; and will not cease to do so, for love or for fear, for gold or for silver, or for precious stones; and will strengthen this tribunal and jurisdiction, with all my five senses and power; and that I do not take on me this office for any other cause than for the sake of right and justice; moreover that I will ever further and honour this free tribunal more than any other free tribunals; and what I thus promise will I steadfastly and firmly keep, So help me God and his holy Gospel."[a]

However harshly stigmatized secret societies may have been, I have no hesitation in saying, that the imposition of such an oath as the above could scarcely fail of throwing a suspicion of illegal practices upon them, and consequently that they were properly suppressed.—Ed.

* Mohammed, or Mahomet, was the son of a noble Arab, Abd-Aliah, of the tribe of Koreish, and Amineh, the daughter of a

[a] *Secret Societies of the Middle Ages*, Lond. 1837, p. 349.

courage to reject them, and to establish a belief in revelation, and to found a religion by declaring that the God whom he preached had refused him the gift of working miracles. In Syria, Egypt, and Persia, which were rapidly conquered, his fierce followers overturned civilization ; and in Persia especially their fanaticism pursued the magii, the depositaries of the sacred science, with implacable rage.

Four hundred years later again, in the name of Islamism, and animated with that enthusiasm for destruction that seldom fails to excite savage hordes, the Turks overran Asia, from the foot of the Caucasus to the

chief of high rank. He was, however, left an orphan with a very small patrimony of five camels and a female Ethiopian slave, and was brought up by his uncle, Aboo Talib. At the age of twenty-five, he became the confidential servant of Khadijah, a wealthy widow, whom he afterwards married, although she was fifteen years his senior. At this time the Arabs were idolaters ; and even Christianity was corrupted by many superstitions. The ardent spirit and ambitious mind of Mohammed led him to regard himself as a mortal selected by Heaven to correct these evils ; but it was not until he attained his fortieth year that he revealed his pretended divine mission to his wife and friends. For the 300 Gods of the Caaba, worshipped by the Arabs, he substituted the adoration of one God, and taught the doctrine of future rewards and punishments ; but his ideas of the rewards were sensual, and of the punishment, those only that are offensive to the body. It is probable that, deluded into the belief of his mission, his views at first were honest, and his object was to check the evil propensities of his countrymen. But elated by the success in his attainment of temporal power, he diffused his tenets by the sword, and to elevate their origin, declared that each *sura*, or revelation of the Koran, was brought to him from heaven by the angel Gabriel. That he was an impostor there is no doubt ; but it might become a question whether his appearance had not greatly contributed to the fall of polytheism.—Ed.

shores of the Red Sea; from the Persian Gulf to the Euxine; and over those countries, barbarism seemed always to have reigned with them. Similar causes produce similar effects; and in these two epochs the secrets of the Occult Science were spread abroad in consequence of the dispersion of its possessors.

From the eighth century, when, tranquil in the bosom of their conquests, the Arabs gave themselves up with ardour to the study of magic, they sought to obtain from it the art of making gold and of discovering hidden treasures—a wish natural in a people enervated by luxury, and for whom despotism rendered all property precarious, but that which could be carried with them.

In the eleventh century, when in their turn the civilized Moslems dreaded the fanaticism of their new brethren, the intercourse between Europeans and the Arabs and Moors became very active; and it may be observed, that this commercial communication of the latter infested the sciences, that they had carried to the west, with magical superstitions.* Students from divers countries of Europe hastened to frequent the schools of the professors of the Occult Science which were opened at Toledo,† Seville, and Salamanca.‡ The school of Toledo was the most celebrated, and continued to be so from the twelfth until the end of the fifteenth century.§

* Tiedmann. *De Quæstione,* &c., &c. page 97.

† "Complures ex diversis regionibus scholares apud Toletum student in arte necromanticâ," are the expressions of Cæsar Heisterbach, a writer at the end, or the commencement of the thirteenth century. *Illustr. Mirac. et Hist. Mir.* lib. v. cap. iv. page 207, (edit. of 1605.)

‡ Fromann. *Tract. de Fascin.* pages 173—174.

§ See the *Commentaire de Leduchat sur Rabelais.* liv. iii. chap. xxiii. note 9.

The secret societies of Europe took an active part in these communications; and it is in a great measure from the adepts, of which these societies were composed, that we have acquired the knowledge of most of the physical and the chemical inventions of the Arabs.

It was in the lowest class of society that the secrets of polytheism were at this period partially deposited. The degradation of the fallen religion caused the most ignorant men to become successors to the Thaumaturgists, who had so long governed both Kings and people.

The vulgar can be undeceived by exposing the tricks of jugglers and other impostors who take advantage of their credulity; but, if their reason has not been aided by sound instruction, their superstitious prejudices never die; they only abandon one object to uphold another. The subaltern ministers of polytheism were men whose science was almost limited to words, and their knowledge to the art of persuading others that they possessed secrets which were great and extraordinary. Forgetting their despised Gods, they spoke of demons, genii, and fates who, at their command, directed either terrible or benevolent actions.

Towards the middle of the sixth century, the Franks and the Visigoths issued severe laws against magic, that is to say, against the lowest class of magicians. The great Theurgic secrets were guarded with sufficient care to prevent them from spreading in an alarming degree among barbarians. Such laws prove how numerous this class was, and how great its power had become over the minds of the people.

In fact, from the commencement of the fifth century

St. Augustin speaks of the *Sabbat** and of the assemblies of sorcerers. Before this period only isolated magicians were known, such for instance as those whose juggleries have been recorded by Apuleius and Lucian. This is remarkable, as the idea of a *Sabbat*, of reunions, implies that of an organized society which recognises within it chiefs and different orders; in short, the idea of an initiation. But although it bears an ignoble appearance, yet it is, in fact, an initiation. The subaltern magicians, not contented with trafficking in miracles, next communicated the gift of working them; they imitated the trials, vows, revelations, and the pageantry of the ancient initiations.

It has been thought possible to trace the origin of the assemblies of the Sabbat, or rather the traditions which relate to them, to the nocturnal meetings of the Druids; their religious dances by torch-light; the processions of Druidesses clothed in white robes; and the solemnities which were celebrated only in remote places, or in deserts, from the period that Christianity had induced sovereigns to put down the ancient religion of their countries.† This is not at all improbable, and it can

* The Sabbat was a fabulous assembly of sorcerers and witches presided over by the devil, which is supposed to have originated in the mystery that shadowed the religious meetings of the Waldenses, the earliest seceders from the Romish creed; and which brought upon them the charge of indulging in unhallowed rites, similar to those of heathenism.—Ed.

† M. Brodel thinks that the immense grottos that are found in the Alps, were formerly inhabited by the Faidhs, or adepts in the Occult Science; and he is also of opinion, that from this circumstance the belief has arisen, that these grottos have been, and still are, the dwellings of fairies.

easily be believed, that in the same manner as in the formation of the modern Secret Societies, the remains of diverse institutions, borrowed from different ages and from different countries, have been brought together, and so intermingled that it would be difficult to perceive what had originally belonged to each of them.

Whatever may be the general opinion, are we right in regarding as successors to the sorcerers of the fifth and sixth centuries, those sorcerers whose meetings have been impeached by all the tribunals of Europe, even until the eighteenth century?

We have already attempted to point out an analogous relation between the Secret Societies, formed by learned men of the middle ages, and the schools of the philosophic Theurgists. In the former, the changes produced by time have affected the forms and the secrets of the initiation: the knowledge which they wished to preserve, existed as long as they could understand the formularies of it: in the latter, on the contrary, the design of the initiation and its history have alike fallen into oblivion. If we endeavour to trace it back to its origin, we have only for our guidance some imperfect remains of its practices, and its fictions; and that which deceit and cupidity, eager to find dupes, have been able to preserve.

Several considerations demonstrate that such an analogy is of little value. M. Tiedmann supposes that several barbarous words, used in the operations of witchcraft, are only Latin and Greek words, badly read and pronounced by the uneducated,* which originally

* Tiedmann. *De Quæstione*, &c. &c. page 102—103.

were part of the formularies of operations or of invocations. Nothing is more probable: and thus the three unintelligible Greek words, pronounced by the high priest at the Eleusian mysteries, *Kongx*, *Om*, *Panx*, have been recognised by Captain Wilford, in the Sanscrit words, *cansha*, *om*, *panscha*, which are repeated by the Brahmans every day at the conclusion of their religious ceremonies.*

Do we not also remark, in the invocations of modern sorcerers, a confusion of astrological ideas, for the invention of which they assuredly cannot account, because they do not understand them, and which must have been received from more learned predecessors?

To transport themselves to the Sabbat, or rather to dream that they were transported there, the sorcerers rubbed their bodies with a sort of pommade; the secret of composing which, a secret which so often was fatal to them, is the last, perhaps the only one, which they have preserved. A sudden, deep, and continued sleep, sad and mournful visions, sometimes mixed with voluptuous movements, were generally produced by the magical unction, the effect of which was to combine the two most powerful feelings of the human soul—pleasure and terror. The choice of the efficacious substances of which the pommade was composed, the discovery of their virtues, and the manner of employing them, cannot be attributed to the modern sorcerers, who are always found in the lowest and most ignorant classes; this knowledge has doubtless descended from a much higher source. Ancient magic used mysterious unctions;

* *The Monthly Repertory*; vol. XXIII. page 8.

Lucian and Apuleius have described those with which Pamplida, and the wife of Hipparcus practised. These two writers, however, have only copied from the Milesian Fables, as much celebrated for their antiquity as for their amusing character.

The magical unction, as we have thus described it, has no effect in modern times, except in producing the dreams that followed its use. But, in the primitive initiations, when composed of ingredients less soporific, it probably served to prepare adepts for the mysteries that they were about to celebrate, by bringing upon them that moral intoxication, the frenzy of belief, so necessary for creating and maintaining superstition and fanaticism.

It may be asked, are we able to trace any vestiges of the primitive initiations?

Amidst the avowals drawn by torture from pretended sorcerers, as to what had passed at the *Sabbat;* amidst details varied by all the incoherence of profound delirium; we may perceive a certain number of uniform ideas. M. Tiedmann,* ascribes this to the continuance of the tortures of these unfortunate beings until they had confessed every thing of which they were accused; and because the accusations were always identical and conformable to the ideas received among the judges. But it is not likely that the magistrates invented these absurd confessions: how then, we may ask, were they originally imprinted in the minds of these poor wretches, if they were not recitals founded either on real actions, or on recollections preserved by long tradition? The common foundation, therefore,

* Tiedmann. *De Quæstione,* &c. pages 137—138.

of all the confessions, which were composed of these ideas, was probably, allowing for the alterations, which time and ignorance could not fail to give to them, some ceremonies formerly practised in the subaltern initiations.

It is natural to believe that these initiations were attached to the last remains of the destroyed worship, and divers indications render this probable. Thus if a hundred and fifty years have passed, since magical virtues as in the time of our ancient Druids, were attributed to the misletoe of the oak ;* if, in the country, attentive observers daily discover legends, superstitions, and observances which have emanated from the ancient religions, how much more is it likely that in an epoch

* Fromann. *Tract. de Fasc.* p. 697.—The Misletoe, *Viscum album,* grows upon many trees; but it was that only which is found upon the oak that the Druids employed; and being a parasitic plant, the seeds of which are not sown by the hand of man, it was well adapted for the purposes of superstition. Its virtues, however, depended altogether upon the manner in which it was obtained : and for this purpose, a religious procession of Druids and Druidesses repaired to the forest, and having found the Misletoe, the chief priest ascended the oak in which it was growing ; and a hymn having been sung, the plant was cut down with a silver sickle, and received in a clean, white sheet spread out below, and held by the other priests ; for the Misletoe lost all its virtue if it touched the ground. The custom, still extant of decorating houses at Christmas with evergreens, of which the Misletoe is one, is a remnant of Druidism ; and was originally intended as an inducement for the Sylvan spirits to " repair to them, and remain unnipped with frost and cold winds, until a milder season had renewed the foliage of their darling abodes." [a]—Ed.

[a] Brand on *Bourne's Antiquities*, p. 193.

far less remote from that of their splendour, these religions still preserved an influence over the habits and the faith of the multitude! The priestesses and druidesses of polytheism, retired to a distance from cities, and long preserved the confidence and the respect of the people. Gregory of Tours speaks of the existence of Pythonesses among the Gauls; and in 798, we see by the capitulars of Charlemagne that there were Divineresses prescribed under the name of *Striæ*. At a much later period, a crowd of men and women assembled by night to celebrate the worship of *Diana*, or the Lady *Abunde*, who was also called Hèra, from the Greek name of Juno, with feasts, races, and dances.* It appears that the priest who presided at the assembly was clothed in a goat's skin, carrying a horned and bearded mask, and thus represented the god Pan, the divinity of Mendes† whom the Greeks had borrowed from Egypt. As in some secret ceremonies of Polytheism, there were other priests who probably bore the disguise of animals. The names of *Diana* or *Hèra*, and the recollection of *Pan* carries us back to the religion which Christianity had overturned; but, do we not also find details,

* See Dulaure. *Histoire de Paris*, 1st edition, vol. v. p. 259; and also Carpentier, *Glossar. verbis Diana et Holda.*

† Mendes, which, in the Egyptian dialect, was the name for a goat, was a city near Lycopolis, in Egypt, situated on one of the mouths of the Nile, where Pan, under the form of a goat, was worshipped; and a sacred goat was kept with the most ceremonious sanctity. Notwithstanding the disgusting form which he assumed, this God had gained the affection of Diana, on which account, in her festivals, one of the priests always assumed the disguise described in the text.—Ed.

which were repeated in the confessions of the sorcerers : for example, the dances, the races, and the feasts ; the goat that they adored; the different animals which a heated imagination transformed into demons, and which, it was supposed, served for mounting the principle personages, who attended at the ceremony. Maximus of Turin, in the fifth century, describes similar meetings as the remains of Paganism. Seven hundred years later, John of Salisbury speaks of them. He mentions them in the fourteenth century; but it is doubtful whether they really took place then : the romance of the Rose says that those who believed in them, and united themselves with the third part of the population were deceived by an illusion. From that time, the meetings and ceremonies of the Sabbat fell into disuse, and no longer existed, save in the reveries of the sorcerers.

After having endeavoured to restore the historic chain, which united those wretches, whom a stupid ignorance condemned to death as sorcerers, with the last depositories of the ancient occult knowledge, it is necessary that we should, among the latter distinguish the subaltern Magi from wizards. Those men who came from different temples, and who were possessed of different secrets, without doubt assisted to extend the knowledge of such secrets; but we suspect that sorcery was founded by those Egyptian priests of the last order, who, from the commencement of the Roman empire, had wandered in every direction ; and who, although they were publicly despised, yet, were consulted in secret ; and continued to make proselytes

amongst the lowest classes of society. The apparition and the adoration of a *Goat*, formed an essential part of the ceremonies of the Sabbat. The *Cat*, also, unhappily for itself, played in these a considerable part, for it often shared the dread which the sorcerers inspired, and the punishments inflicted upon them. It is well known how ancient the worship of the cat and the goat was in Egypt. It is also well known of what importance another agent, the *Key* was in the tricks of witchcraft; how many cures the *Key of St. John*,* and the *Key of St. Hubert* performed.† The handled cross *Crux ansata*, so frequently observed on the Egyptian monuments, was a key;‡ and from the religious ideas which placed it in the hand of the principal Gods of Egypt, we discover in the *key* the hieroglyphic of sovereign power.

The *Pseudo-monarchia Dæmonum*, appears to us to

* The number of the saints of this name in Butler's alphabetical list of the Fathers, Martyrs, and principal Saints, is 32; but I imagine the St. John referred to in the text, is he "of the cross," who flourished in the sixteenth century.—Ed.

† St. Hubert must have been originally a man of wealth and consequence, as he was mayor of the Palace of Austrasia, A.D. 681, in which year St. Lambert, by whose efforts he was united to the service of the Church, was murdered. St. Hubert was chosen his successor or Bishop of Maestricht; and among other praiseworthy acts, drove the remnants of idolatry from their last stronghold, in the great forest of Ardennes, on the Meuse. But, like many of his predecessors, he pretended to work miracles; and his shrine has always been celebrated for wonderful cures, especially of persons labouring under hydrophobia; but we possess no evidence of the value of the remedies, when the disease is not the result of imagination.—Ed.

‡ *Encyclop. method. Antiquités.* Article, *Key*.

have had an Egyptian origin; an important fact, since most of the names which this work contains are reproduced, with a little alteration, in the pamphlets respecting witchcraft, which are found in country places.* Among the genii of the *Pseudo-monarchia* one is a mermaid, a figure peculiar to the Planispheres ;† another, a venerable old man, mounted on a crocodile and carrying a hawk upon his wrist. A third is represented under the form of a camel, which bespeaks its Egyptian origin, (in the astronomy of the Arabs the camel is known to take the place of the constellation of the kneeling Hercules), whilst another appears partly a wolf and partly man, displaying like Anubis, the jawbones of a dog; and a fifth is Ammon or Hammon,‡ whose name reveals its origin. Ammon was the universal, the invisible God,

* On the second band of the soffit of the Portico of the Temple of Dendera, may be remarked (says M. Jollois, in the *Description de l'Egypte*) a woman whose body terminates with the tail of a fish. On this emblem which is also found in the Hindoo, Japan, Chaldean, Phœnician, and even Greek mythologies, see § XII. of the note A. of *dragons and monstrous serpents.*

† *J. Scaligeri notæ in M. Manilium*, page 484.

‡ The ruins of the temple of Jupiter-Ammon are situated in an Oasis, five degrees nearly west of Cairo, called the Oasis of Siwah. They were discovered by Browne, who travelled into Upper Egypt in 1792; and were visited by Horneman in 1798, and Belzoni in 1816. Horneman discovered there, the fountain of the sun, described by Herodotus as warm at dawn, cool as the day advanced, extremely cold at noon, gradually again becoming warmer until sunset, and boiling hot at midnight. Belzoni had no thermometer to measure its temperature; but judging from his feelings, he states that he found it about 80° early in the morning, 40° at noon, and 100° at midnight. The well is sixty

whom the Egyptian priests supplicated to manifest himself to his worshippers.*

We have already given sufficient space to this discussion: if the inferences which we have drawn from it have any probability, they will authorize us sometimes to quote in our researches, from the modern sorceries, either as borrowed from ancient science, or as proper for explaining by analogy, some of the apparent miracles of the ancients: and they will at the same time show us, in explaining the progress of the science, how the knowledge of it extended to our times;—the errors to which it led in the uneducated classes:—the reason why it was enveloped in mystery;—the prejudices that this mystery have given birth to in the human mind;—and how it silently perished in the hands of the truly enlightened.

feet deep in a shaded spot, and it is probable that, were its temperature measured by a thermometer, it would be found nearly the same at all times: but when measured by the hand, a fallacy is produced by the different temperament of the body at the time. At midnight the body being cool, the water would feel hot; but at mid-day, the body being hot, the water of the same temperature as at midnight would feel cool.—Ed.

* According to Hécatee of Abdera, quoted by Plutarch (*Plutarch. de Isid. et Osirid.*) Joannis Wieri, *Opera omnia Pseudo monarchia Demonum*, p. 650, § 5.

## CHAPTER X.

Enumeration of the wonders that the Thaumaturgists acquired the power of working, by the practice of the Occult Science.

THE theatre where so many prodigies were concentrated for the purpose of trying the courage of the initiated, for subjugating their reason, and rewarding their constancy, the temple, is about to be thrown open.

After having been for many days submitted to various preparations, the design of which was hidden from him, and their nature disguised by religious ceremonies, the aspirant entered upon a course of apparent miracles, with the issue of which he was ignorant; and from beholding which he was uncertain whether he should be permitted to emerge a victor.

At first he seemed to be placed immoveably, and, as it were, enchained in the depth of an obscurity as profound as those of the infernal regions; and although now and then flashes of light broke for a moment the darkness which surrounded him, horrors only were revealed to him. By these transient flashes he caught glimpses of monstrous phantoms, and awful spectres; he heard near him the hissing of serpents and the howling of wild beasts; and

echo repeated and prolonged in the distance these noises so well calculated to excite alarm. During the calmer intervals such were the overpowering emotions awakened in his mind, that a slight rustling, or even an agreeable sound made him tremble.* The scene next became lighted up; and, suddenly, he perceived a change coming over the aspect of the place and its decorations; the earth trembled and raised itself up, almost into a mountain, and again sunk into a profound abyss. He then felt himself raised or drawn rapidly along, although unable to discover the impulse he felt constrained to obey. Under his eyes, whilst gazing upon them, the pictures and marbles became animated; the bronzes shed tears; unwieldy and colossal figures moved and walked; and statues uttered harmonious sounds. He was compelled to advance forwards, whilst awful monsters, centaurs, harpies, gorgons, and serpents with a hundred heads, surrounded and menaced him, bodiless heads grinned at him, and mocked alike his fear and his courage.†

Phantoms bearing a perfect resemblance to men who had been long laid in the grave, and who, whilst alive, had been the objects of his admiration or his attachment, fluttered about him, and shrunk from embraces which they appeared to seek. Thunders rolled, lightnings flashed, water became inflamed and flowed in torrents of

* I have borrowed this sketch from the highly poetical picture, drawn by the Author of the "*Livre de la Sagesse,*" (chap. XVII.) displaying the terrors which tormented the Egyptians during the three days of darkness.

† An exhibition similar to the Phantasmagoria. See a subsequent note.—ED.

fire. A dry and solid body fermented, dissolved and changed into waves of foaming blood. In one place were seen wretched beings in vain attempting to fill with water a shallow urn, the liquid they unceasingly poured into it never rose to its top; in another place the favoured of the Gods proved their right to this title by braving the influence of boiling water, of red-hot iron, melted metal, and burning wood. They commanded as masters the most ferocious beasts; they gave the word, and venomous serpents came and crouched at their feet; they seized asps and vipers and tore them asunder, whilst the reptiles dared not to bite nor revenge themselves upon their tormentors. Then the aspirant heard near him the tones of a human voice ;* calling him, and answering his questions, but the nearer he approached to the spot whence the sound proceeded, the less able was he to perceive the person by whom the voice was uttered. At the bottom of a narrow cavern, into which the daylight never penetrated, a light as bright as that of the sun, suddenly bursting forth, discovered to him, at an immense distance, enchanted gardens and palaces, the beauty and the magnificence of which induced him to recognise in them the abode of the immortal Gods. There the Gods appeared to him, their presence being announced by the most indubitable indications. He saw and he heard them; his mind troubled, his imagination confused, and his reason, overwhelmed by so many miracles, abandoned him; and, intoxicated and transported with admiration, he worshipped the glorious proofs of super-

* This was evidently the effect of ventriloquism.—Ed.

natural power, and bent in devotion before the certain presence of Divinity.

However dazzling these pretended miracles were, they sunk to nothing compared with the knowledge which was preserved for the initiated if his birth, his courage, his zeal, should enable him some day to take a place amongst the highest orders of the priesthood. All that had struck him with so much admiration he was himself to acquire the power of performing, and the secret of still more important wonders was to be revealed to him.

The minister of a divinity by turns beneficent and revengeful, but ever omnipotent, he was assured that both man and the elements should obey him. He should be rendered capable of astonishing the multitude by his power of abstinence from food; and load the ignorant man with gratitude by purifying the impure beverage that excess of thirst might oblige him to accept. He was informed that he should possess the power of disturbing the minds of men, of plunging them into brutish stupidity or ferocious rage; of obliterating from their memory the recollection of their sorrows, and of freeing them from the power of grief. In addition, he was to be able to exalt their audacity, or their docility into fanaticism; fulfil their most ardent desires in visions; and often, even without any intermediate means, to act on their senses and govern their will. Arbiter of their disputes, he would have no necessity to interrogate witnesses or to weigh opinions; a simple ordeal should enable him to distinguish the innocent and truthful man from the criminal and perjured, who might be convicted by him to be worthy of a dreadful and merited death. He was told

that in their maladies men should call upon him; and, at his voice, the aid of heaven would descend and heal their diseases; and he should even have the power of snatching from Death the prey which the grim destroyer had already seized. Woe to the man who should offend him: he might be struck with leprosy, with blindness, or with death. He was farther informed that he might forbid the earth to yield its fruits; that he might poison the atmosphere; and the exhalations, which would thus furnish him with arms against his enemies. The most terrible of the elements, fire, should be his slave; at his command it would spring up spontaneously, and bewilder the eyes of the incredulous; water should not extinguish it; it should burst forth awful as thunder against his victims, and, tearing open the bosom of the earth, compel it to engulph and devour them. The heavens even should be subject to his control, and he might predict to the anxious and fearful the variations of the weather and the convulsions of the earth. He should have power to still the thunder, and to play with the lightning; while trembling men should believe him to be endowed with the power of hurling it at their heads. Such were the promised gifts of the Deity who inspired; such the tools of conviction by which the initiated chained to the foot of the altar all men, whatever their rank might be, out of the temple. All were constrained to believe, to adore, and to obey.

These unbounded promises were fulfilled through the means of the Occult Science: a thousand times has the attentive eye witnessed these apparent miracles, into the causes of which enthusiasm forbade inquiry. And

we, to whom this inquiry is permitted: (for to whom, indeed, is it now denied?) we believe these apparent miracles, and admire them for the variety of knowledge necessary to their production; but we are not blind to the charlatanism and imposture so cleverly mixed up with these mysteries; and, therefore, we have endeavoured to expose this shameful alliance. By purifying it from the dross that soils it, the precious ore recovers all its brilliancy and value.

## CHAPTER XI.

Apparent miracles performed by Mechanism—Moving floors—Automata—Experiments in the art of flying.

AMONG the wonders which were invented and composed, as experiments and exhibitions for the initiated, we cannot avoid, at the first glance, perceiving that many were the result of an ingenious application of the principles of mechanism and acoustics. The skilful illusions of optics; of perspective; the phantasmagoria; many inventions belonging to hydrostatics and chemistry; the practical use made of observations of the habits and sensations of animals; and lastly, the employment of those secrets, practised in all ages and always beheld with astonishment, which preserve our frail organs and susceptible skins from the ravages of fire—were all called in to assist in deluding the aspirant. We do not discover, it is true, in the writings of the ancients any positive indication of their possession of all this knowledge; but the effects speak for themselves, and constrain us to admit their existence as causes. We repeat that it is wiser to concur in such views, than boldly to accuse the accounts of such miraculous events of being misrepresentations. The

marvellous, and apparently impossible, have been robbed of their wonderful character by the progress of science. Much that the ancients assert was done, we possess the means of doing: equivalent means were therefore known to them. I demand of those who would reject this conclusion, to say whether the history of the sciences—that history enveloped in so much darkness—has been handed down to us so detailed and complete that we can with certainty define its extent, or determine its limits? In reference to mechanism, at least, we dare not attempt it. The science of constructing wonderful machines, whose effects seem to overthrow the whole order of nature; in one word, mechanism—for it is thus that Cassiodorus* defines it—was carried by the ancients to a point of perfection that has never been attained in modern times. We would inquire have their inventions been surpassed in our age? Certainly not; and at the present day, with all the means which the progress of science and modern discoveries have placed in the hands of the mechanic, have we not been assailed by numerous difficulties, in striving to place on a pedestal one of those monolithes that the Egyptians, forty centuries ago, erected in such numbers before their sacred edifices. It is, indeed, sufficient to point to the inventions of Archimedes, to render credible the wonders that are said to have been performed by mechanism in the temples. But

* Cassiodor. *Variar.* lib. I. cap. XLIV.—Cassiodorus, a statesman and learned writer of the sixteenth century, who filled several offices under Theodoric. He lived to the age of one hundred; but some time before his death he grew tired of public life, and retired to a monastery, where he ended his days, A.D. 562.—ED.

let us observe how that great man, misled by the doctrines of Plato, attached only an ordinary value to the most brilliant applications of science; holding theory and speculative disquisitions in a much higher estimation. It is even believed,* though perhaps incorrectly,† on the evidence of

* Plutarch *in Marcell.* § 18 and § 22.

† Cassiodorus (*Variar.* lib. I. cap. LXV), in commenting upon the works translated from Greek into Latin by Boethius,[a] positively mentions a Treatise on Mechanism by Archimedes, entitled, "*Mechanicum etiam Archimedem latialem siculis reddidisti.*" The epithet conferred by Cassiodorus on every author, explains the title or the subject of the translated work: "*Pythagoras musicus;*" "*Plato theologus;*" "*Aristotle logicus;* &c." The meaning of the word *mechanicus* is rendered obvious in the continuation of the letter in which Cassiodorus gives mechanism the definition we have quoted. When it is recollected that Plutarch was not an infallible authority in facts, we shall be inclined to give more weight to the assertion of Cassiodorus, the friend and contemporary of Boethius. It would, at least, be very desirable that a search should be made in all libraries containing manuscripts, for a Translation of the Treatise, the original of which, if it ever existed, has long since disappeared.

[a] Annius Manlius Torquatus Severius Boethius was born A.D. 455, of an ancient, noble, Roman family. He studied at Athens, and acquired so early a character for learning and genius, that on his return to Rome, it secured for him many friends and admirers, and also the Consulship at the age of thirty-two, when Theodoric reigned in Italy. He devoted the whole of the time which he could spare from the service of the Commonwealth to the cultivation of science. His Treatise upon music was one only of his voluminous labours, the principal of which was entitled, "De consolatione Philosophiæ," composed in prison, into which he had been thrown by Theodoric, under a false accusation that he attempted to excite discontent against that monarch, and that he sought means to restore freedom to the Romans. He had scarcely

Plutarch, that he left nothing written on the construction of those machines which had acquired him so much renown. Thaumaturgists alone understood the true value of the secrets acquired by the practice of science, yet beheld unmoved the injustice done to the philosophers, who aided them by preserving their means of power in inaccessible security.

In the infamous mysteries, which were properly and severely denounced by the Roman magistrates, in the year 186 A.C., and which were doubtless derived from more ancient initiations, certain machines were employed to raise up, and cause the disappearance of the unhappy victims, who were said to have been ravished by the Gods.* In a similar manner, in other cases, the aspirant to initiation felt himself suddenly lifted up by some invisible power. We might be astonished that imposture thus exposed should continue to be revered in other mysteries, if human credulity did not everywhere present contradictions as palpable. In order to descend into the Cave of Trophonius, those who came to consult the oracle, placed themselves before an aperture apparently too narrow to admit a middle-sized man; yet, as soon as the knees had entered it, the whole body was rapidly drawn in by some invisible power. The mechanism used

finished his Treatise, when Theodoric ordered him to be beheaded, which was done in prison, October 23, A.D. 526. Although a Christian, yet it is remarkable that he refers none of the consolations to that faith. Boethius must not be confounded with Boëtius, the Scottish historian, who flourished in the fifteenth century, and who was also a writer of undoubted veracity. Erasmus, speaking of him, says, "he knew not to lie."—ED.

* Tit. *Liv.* lib. XXIX. cap. XIII.

for this purpose was connected with other machinery, which at the same time enlarged the entrance to the grotto.*

When the sages of India conducted Apollonius to the temple of their God, singing hymns and forming a sacred march, the earth, which they struck with their staves in cadence, was agitated like a boisterous sea, and raised them up nearly two feet; then calmed itself and resumed its usual level.† The act of striking with their sticks betrays the necessity of warning workmen, who were placed beneath, to raise a moving stage covered with earth; an operation readily effected by the aid of mechanism, very easy to be comprehended.

According to Apollonius, it was only the sages of India who could perform this miracle.‡ Nevertheless, it

* Clavier. *Mémoire sur les oracles anciens,* pages 149—150. The cave of Trophonius was one of the most celebrated oracles of Greece. The individual whose name the cave bore, and who was thus honoured as a God, was, in conjunction with his brother Agamides, the architect of the temple of Apollo at Delphi, and was rewarded by the priests with assassination instead of payment for his labours. The brothers were desired by the God, through the priests, to be cheerful, and to wait eight days for their reward, at the termination of which time, however, they were found dead in their beds.

The person who went to consult the oracle, was obliged to make certain sacrifices; to bathe in certain rivers; and to anoint his body with oil. He was then clothed in a linen robe, and, with a cake of honey in his hand, he descended in the manner described in the text into the cave. What passed there was never revealed, but the person on his return generally looked pale and dejected. —Ed.

† Philostrat. *De vit. Apoll.* lib. III. cap. V.

‡ Philostrat. *De vit. Apoll.* lib. VI. cap. VI. Apollonius was, however, a mere narrator of wonders, not very worthy of belief.

is probable that a similar secret existed in other temples. English travellers,* who visited the remains of the temple of Ceres, at Eleusis, observed that the pavement of the sanctuary is rough and unpolished, and much lower than that of the adjacent portico. It is, therefore, probable that a wooden floor, on a level with the portico, covered the present floor, and concealed a vault destined to admit of the action of machinery beneath the sanctuary for moving the floor. In the soil of an interior vestibule, they observed two deeply indented grooves, or ruts; and as no carriage could possibly be drawn into this place, the travellers conjectured that these were grooves intended to receive the pullies which served in the mysteries to raise a heavy body; "perhaps," said they, "a moving floor." In confirmation of their opinion, they perceived further

He was a native of Tyanus, in Cappadocia, and lived in the commencement of the Christian era. He travelled by land into India, and on his return propagated accounts of the most incredible prodigies and miracles which he had witnessed; but he was a shameless impostor, and one of the many pretenders to miracles in his time. One of the few redeeming acts in the life of Nero was the banishment of our hero and his fellow miracle-workers from Rome. At Athens, Apollonius was initiated into the Eleusian mysteries, and performed many pretended miracles before his death, which occurred when he was above one hundred years of age. It is remarkable that Philostratus, his biographer, should have believed a tithe of the wonders he has related in his life: and, notwithstanding the evident falsehoods of Apollonius, such was the superstition and credulity of his period, that temples and statues were erected in his honour, and his appellation was, "the true friend of the Gods!" —Ed.

* *The unedited Antiquities of Attica, by the Society of Dilettanti.* London, 1817.

on other grooves, which might have served for the counter-balances to raise the floor; and they also detected places for wedges, to fix it immoveable at the desired height. These were eight holes fixed in blocks of marble and raised above the ground, four on the right, and four on the left, adapted to receive pegs of large dimensions. The seats, on which a person sitting down finds himself fixed, and without the power of moving from, are not, as was supposed, the invention of the eighteenth century. It is related by the mythologists, that Vulcan presented a throne to Juno, on which the Goddess had no sooner seated herself than she found herself enchained to it.*

Vulcan decorated Olympus with tripods which, without any apparent motion, took their places in the banquet hall of the Gods.† Apollonius saw and admired similar tripods amongst the sages of India.‡ The construction of automata is not a recent invention; and we may venture to relate, on the authority of Macrobius,§ that at Antium and in the temple of Hierapolis there were moving statues.

Another proof of the ingenuity of the ancients was the wooden dove, so wonderfully constructed by the philosopher Archytas,‖ that it flew, and sustained itself for

* Pausanias. *Attic.* cap. xx.

† Homer. *Iliad.* lib. xviii. verses 375—378.

‡ Philostrat. *De vit. Apoll.* lib. vi. cap. vi.

§ Macrobe. *Saturnal.* lib. i. cap. xxiii.

‖ Archytas was a native of Tarentum, in Italy, and flourished 400 years before the birth of our Saviour. He was a contemporary of Plato, who had been his pupil. He is said to have been a man distinguished for his mathematical knowledge and discoveries

some time in the air.* This masterpiece of art naturally reminds us of the desire of man, in all ages, to become a rival of the birds of the air, as swimming and the art of navigating in the waters have enabled him to become the rival of the inhabitants of the rivers and seas. We need not mention the story of Dædalus and Icarus as an example. Dædalus, pursued by Minos, for having betrayed to Theseus the secret of the windings and openings of the labyrinth of Crete, flew from that island with his son:† but his wings were sails, which he was the first in Greece to apply to barks, whilst the vessels of his persecutor were only rowed with oars. It is probable that he learned the use of sails in Egypt, as he had borrowed from that country the idea of the construction of the labyrinth. But if we turn our eyes towards the East—which we shall often have occasion to do—an author, although we must admit that he is not much to be relied upon,‡ describes a statue of Apollo which, when carried in religious ceremonies by the priests of the God, raised itself in the air and fell again on exactly the same spot from which it had been carried—a feat similar to that which may be seen performed by any aeronaut in our public gardens. Narratives, the origin of which

in practical mechanics; and to have been also a profound statesman and a skilful general. Besides the wooden dove, he invented the screw, the crane, and various hydraulic machines. He perished by shipwreck on the coast of Apulia.—Ed.

* A. Gell. *Noct. Attic.* lib. x. cap. xiii.

† Heraclit. *De Politiis. verb. Icarus.* It is supposed that their sails were their cloaks elevated on oars, and that the son having exercised less skill than his father, in managing his bark, was wrecked on the coast of Icaria.—Ed.

‡ *Le traité de la déesse de Syrie.*

is certainly very ancient, furnish us, also, with two facts which should not be passed over in silence. The one describes a flying chariot, which a man directed through the air as he pleased, and which was exhibited as a masterpiece of art, and not of magic.* The other states that, beneath a balloon was attached a little car, in which a man placed himself, and the balloon shooting up into the air rapidly, transported the traveller wherever he desires to go.†

What shall we conclude from these recitals? There can be only one conclusion, namely, that the performances of this description of mechanism may probably be assigned to an epoch even more remote than that of Archytas ;‡ and that the Tarentine, the disciple of Pythagoras,

* *Les Mille et un Jours*. Jours cx—cxv.

† *Les Mille et une Nuits*, 556e nuit, tome vi, pages 144—146.

‡ It is a curious fact, that notwithstanding the efforts which were made at various periods to enable men to raise themselves in the atmosphere, the first aërial voyage in Europe did not take place until the year 1783, when the Mongolfiers, paper manufacturers at Annonay, near Lyons, raised a paper balloon of 23,000 French cubit feet of capacity, filled with air rarified by heat in a chaffer placed below the mouth of the balloon. It rose with great force and rapidity to an elevation of 10,000 toises ; but, as the air soon cooled, it gradually descended. It was, however, thought imprudent to risk human life in these balloons, and even in those filled with hydrogen gas, when it was first employed ; but, on the 15th of October, 1783, M. Pilatre de Rozier ascended in a Montgolfier, held by ropes to the height of one hundred feet; and on the 2nd of November, of the same year, M. Pilatre and the Marquis d'Arlander, left the earth in a free balloon, and descended after travelling 5000 toises. The possibility of travelling in this manner being thus established, aërostation has gradually improved ; but, although aëronauts can now rise and descend at pleasure, yet they are not able to direct a balloon in the manner of a vessel : they

who was himself the disciple of the sages of the East, perhaps only excited the admiration of Italy by secrets acquired in the temples of Memphis or of Babylon.

are, therefore, at the control of every current of air into which the balloon is carried.—Ed.

## CHAPTER XII.

Acoustics—Imitation of thunder—Organs—Resounding chests—Androïdes, or speaking heads—The statue of Memnon.

IMPOSTURE always betrays itself. However much the mind of the candidate might have been preoccupied; the creaking of the pullies; the coiling of cordage; the clicking of wheels; and the noise of the machines; must necessarily have struck upon his ear, and disclosed the weak hand of man in those exhibitions, which were intended to excite admiration as the work of supernatural powers. This danger was felt and foreseen; but far from seeking to deaden the sound of the machines, those who worked them studied to augment it, sure of increasing the terror intended to be excited. The tremendous thunder accompanied with lightning was regarded by the vulgar as the arm of the avenging Gods; and the Thaumaturgists were careful to make it heard when they spoke in the name of the Gods.

The labyrinth of Egypt enclosed many palaces so constructed that their doors could not be opened without the most terrific report of thunder resounding from

within.* When Darius, the son of Hystaspes, mounted the throne, his new subjects fell prostrate before him, and worshipped him as the elect of the Gods, and as a God himself; and at the same moment, thunder rolled and they saw the lightning flash.†

The art of charming the ears was as important to the Thaumaturgists as alarming the multitude with awful noises. Pausanias who seriously recounts so many fabulous miracles, nevertheless taxes Pindar with having invented the fable of the *golden virgins*, who were endowed with a ravishing voice, and, according to the Theban poet, adorned the roof of the temple of Delphi.‡ Less incredulous than Pausanias, we may suppose that behind the statues of the virgins, or within the gilded bas-relievos, was concealed a musical instrument, the sounds of which imitated the human voice. A simple organ would suffice for this purpose, and hydraulic organs were well-known to the ancients. A passage in the writings of St. Augustin seems even to indicate that organs with blowers were not unknown to them.

An invention much less familiar is noticed in the history of a wonderful stone, said to have been found in the Pactolus. This stone, when placed at the entrance to a treasure, kept away thieves whose fears were aroused by hearing the loudest tones of a trumpet issue from it.§ There are strong coffers made at the present

* Plin. *Hist. Nat.* lib. xxxvi. cap. xiii.

† Tzetzès. *Chiliad.*

‡ Pausanias. *Phocic.* cap. v.

§ *Treatise on Rivers and Mountains,* attributed to Plutarch, § viii.

day, which, when clandestinely opened, produce loud sounds.* The Phrygian inventor of the first of these wonders of mechanism had, perhaps, as we are led to believe, veiled his secret under a fable; for, if he had described it literally, it would not have been credited that a stone found on the shores, or the neighbouring mountains of Pactolus could possess such a power. As to its properties of sound, they were only possessed in common with the sounding stone preserved at Megara;† the red granite of Egypt; the stones employed in China for making musical instruments; the sparkling green stone of which a statue found in the ruins of Palenqui-viejo was made;‡ and the basalt, of which there are large blocks existing in Brasil, from which a very distinct sound is awakened whenever they are struck.§ The rest is due to ignorance and a love of the marvellous.

It is often related in ancient history, that distinct words have been uttered by a child at the moment of its birth; that trees also and statues have spoken; and that sounds have been spontaneously uttered in the sombre gloom of a temple. The phenomena of ventriloquism affords a satisfactory explanation for many of these stories; but not for all of them. It is, therefore, more natural to admit that these sounds, the origin of which is not perceptible, are

* Louis XV. possessed one, and one was offered to Napoleon in 1809.

† Pausanias. *Attic.* cap. XLII.

‡ *Revue Encyclopédique,* tome XXXI. p. 850.

§ Mawe's *Journey into the Interior of Brazil,* vol. I. chap. V. p. 158.

the effects of art; and to attribute these to the invention of the Androïdes, which, although, in our own times, explained in well-known works,* yet has, under the name of the Invisible Girl, excited the admiration of the vulgar, and even of those who are unwilling to class themselves among the ignorant. Questions are addressed, in a low tone, to a doll, or a head made of card-board or of metal, or even to a glass-box; in a short time replies are heard which appear to proceed from the inanimate object. Acoustics teach us the methods which enable a person, at some distance, to hear and to be heard as distinctly as if he occupied the place whence the doll apparently speaks. It is not at all a modern invention; for more than two centuries have elapsed since Porta† explained the principles of this invention in his *Natural Magic*:‡ but, in more ancient times, its principles were kept secret and only the wonders performed by it presented for the admiration of the multitude.

Towards the end of the fourteenth century, a speaking head, made of earthenware, excited in England

* *Encyclopédie*, art. *Androide*.

† Giambatista Porta, a Neapolitan, in the 16th century, wrote, at a very early age, the first books of his work on Natural Magic, which accounts for the many absurd and fantastic notions which, mixed up with deductions of true science, they contain. He was, however, a man of learning and genius, and did much in his time to forward the pursuit of science. He invented the camera obscura. His "*Magia Naturalis*," is a compilation from both ancient and modern authors, and contains much curious matter, badly put together. Besides many philosophical treatises, he wrote several dramatic works.—Ed.

‡ Porta. *De Magia Naturali. Pancirol. Rerum recens invent. Giambatista*, tit. x. For the explanation of the Invisible Girl, see Brewster's *Letters on Natural Magic*.

the astonishment of the curious. The one made by Albertus Magnus,* in the thirteenth century, was

* Albertus, surnamed Magnus, from the Latinizing of his surname, which was *Great*, was a native of Swabia, and born in 1205. He was ardently desirous of acquiring knowledge, and studied with assiduity; but being of slow comprehension, his progress was not adequate to his expectations, and, therefore, in despair, he resolved to relinquish books, and bury himself in retirement. One night, however, he saw a vision of a beautiful woman, who accosted him, and inquired the cause of his grief. He replied, that in spite of all his efforts to acquire information, he feared he should always remain ignorant. "Have you so little faith," replied the lady, "as to suppose that your prayers will not obtain what you cannot of yourself accomplish? I am the Holy Virgin, and I have heard your prayers." The young man prostrated himself at the feet of the Virgin, who promised him all that he desired, but added that, as he preferred philosophy to theology, he should lose his faculties before his death. She then disappeared; and the prediction was accomplished. Albertus became unwillingly Bishop of Ratisbon, but he relinquished the See within three years, and resided chiefly at Cologne, where he produced many wonderful works. It was said that he constructed an automaton which both walked and spoke, answered questions, and solved problems submitted to it. Thomas Aquinas, who was the pupil of Albertus, was so alarmed on seeing this automaton, which he conceived to be the work of the Devil, that he broke it to pieces and committed it to the flames. When William, Count of Holland and King of the Romans, was at Cologne, Albertus invited him to a banquet, and promised that his table should be laid out in the middle of his garden, although it was then winter, and severe weather. William accepted the invitation; and, on arriving at the house of Albertus, was surprised to find the temperature of the air as mild as in summer, and the banquet laid out in an arbour formed of trees and shrubs covered with leaves and flowers, exhaling the most delicious odours, which filled the whole of the garden. Albertus was reputed a magician; but, nevertheless, after his death, which occurred in 1282, in his seventy-seventh year, he was canonized.—Ed.

of the same material. Gerbert, who under the name of Sylvester the Second, occupied the papal throne from the years 199 to 1003, constructed a brazen head possessing a similar property.* This master-piece of art was the cause of his being accused of magic; perhaps the accusation was not unfounded, if they applied the same meaning to the word as we do; it was the result of science concealed from the knowledge of the common people.

The philosophers, in these inventions, made no new discovery; they had received from their ancient predecessors a secret which surpassed and alarmed the weak understandings of their cotemporaries.

Odin, who implanted among the Scandinavians a religion and magical secrets borrowed from Asia, possessed a speaking head. It was said to be the head of the wise *Mirme*, which Odin after the death of that hero, had caused to be encased in gold. He consulted it, and the replies which he was supposed to have received were revered as the oracles of a superior being.

Besides the *Northern legislator* there were others who had endeavoured to render credulity more eager and submissive, by asserting that the speaking heads they served had always been animated by the spirits of living men.

We shall not, however, quote, in this sense, the story of the child that was devoured whole by the ghost of Polycritus, with the exception of its head, which uttered prophecies that were afterwards verified: †

* Elias Schedius. *De Diis Germanis*, p. 572—573.

† Phlego. *De Mirabilibus* Noël. *Dictionnaire de la Fable*, art. *Polycrite*.

this fable is most probably an allegory. But at Lesbos a speaking head delivered oracles; it predicted to the great Cyrus, (in rather equivocal terms, it is true,) the bloody death which should terminate his expedition against the Scythians. It was the head of Orpheus; and it was so celebrated for its oracular responses among the Persians, and also among the Greeks, from the time of the Trojan war, that Apollo himself became jealous of its fame.*

According to many Rabbins, the *Theraphim* consisted of the embalmed heads of the dead, under whose tongues a thin plate of gold was fixed,† and, like the head of Mirme, also incased in gold. Other Rabbins report that the Theraphim were phantoms, who, having received the influence of powerful stars, conversed with men and gave them wholesome advice.‡ We are led from the expressions of Maimonides, on this subject to infer that buildings were erected expressly to contain these speaking images; a circumstance which explains why so much care was taken to place the images against the wall; a certain position being absolutely necessary to produce an apparent miracle depending on acoustics. This miracle was not unknown in that country of wonders, whence the Hebrews acquired their knowledge. The priests (Mercurius Trismegis-

* Philostrat. *Vit. Apollon.* lib. IV. cap. IV. Philostrat. *Heroic in Philoctete.*

† Fromann. *Tract. de Fasc.* p. 682—683.

‡ R. Maimonides. *More Nevochim,* part III. cap. XXX. "*Et ædificaverunt palatia et posuerunt in eis imagines.*" Elias Schedius *De Diis Germanis,* p. 568—569.

tus* is our authority) possessed the art of making Gods† and statues endowed with understanding; who predicted future events and interpreted dreams. It was even asserted that the Theurgists, who were addicted to doctrines less pure, knew also how to make Gods and statues animated by demons, that were little inferior in their supernatural powers to those made by the real priests. In other words, the same physical secrets were known and practised by the rival priesthoods.

The ancients, as we are informed, were acquainted with the art of constructing Androïdes,‡ and this art has been preserved and handed down to our workshops from their temples. Through the dark period of the middle ages, we draw this conclusion from what has preceded; and it seems more admissible than the supposition of impostures and gross deceptions§ constantly renewed. We may inquire whether it was an applica-

* The Egyptian Hermes, who is reported to have invented writing, and first taught astrology and the science of astronomy. —Ed.

† "*Artem quâ deos efficerent.*" Mercurii Trismegisti *Pymander. Asclepius*, pp, 145, 146, et 165, (in 12mo. Basileæ, 1532.)

‡ We believe this explanation sufficient; but to render it more complete, we may cite the speaking heads presented by the Abbé Mical to the Académie des Sciences in 1783. They pronounced words and phrases, but did not produce an exact imitation of the human voice.

§ Far from exaggerating the knowledge possessed by the ancients in acoustics, we do not go so far as Fontenelle, who suspects (*Histoire des Oracles*, part I. chap. XIII.) that the ancient priests were acquainted with the use of the speaking-trumpet. Kircher thinks Alexander made use of a speaking-trumpet, that he might be heard at the same moment by the whole of his army. It does not seem very probable.

tion of science, superior or equal to those we have enumerated, that produced in Egypt the wonder of the statue of Memnon, which every morning raised its harmonious voice to welcome the rising sun? Was the secret of this apparent miracle derived from an art ingeniously concealed, or only from a phenomenon, which the spectators, eager for miracles, did not attempt to unfathom? It seems to me, that all the conjectures that have been hazarded on this subject are reduced to this alternative.*

The second supposition furnishes us with another example of the artifice which the priests employed to convert into apparent miracles extraordinary facts, calculated to astonish the vulgar. The first opinion has been adopted

* See note B, vol. II. *on the statue of Memnon.* Wonderful as many of the automata of the ancients were, they yield the palm to some of the modern. I must refer the reader to Dr. Brewster's "Letters on Natural Magic" for a description of several, and among them the Automaton Chess-Player, which was some years since exhibited in London, and excited much astonishment. I shall notice here only the Flute-player of Vaucauson, which was exhibited in Paris in 1736. It was seen and described by M. d'Alembert,[a] who says, "it really played on the flute;" that is, it projected the air with its lips against the embouchure, producing the different octaves by expanding and contracting their opening, forcing more or less air, in the manner of living performers, and regulating the tones by its fingers. It commanded these octaves, the fullest scale of the instrument, containing several notes of great difficulty to most performers. It articulated the notes with the lips. Its height was nearly five and a half feet, and was placed on a pedestal, in which some of the machinery was contained. Dr. Brewster[b] has given a popular description of the machinery.—Ed.

[a] *Encyclop. Math.* art. *Androide.*

[b] *Letters on Natural Magic,* p. 204.

by many cotemporary authors; and it was what I believe the priests themselves were anxious should prevail.

Juvenal denominates the sounds that issued from the statue, magical;* and we have mentioned that among the ancients, magic was the art of working wonders by scientific means, unknown to the multitude. A scholiast of the Latin satirist is still more explicit; for, in commenting on this passage, he speaks of the wonderful mechanism in the construction of the statue;† and adds that its voice was clearly the result of the working of machinery. When this writer thus reduced to the performance of mechanism the wonder of Memnon's statue, he spoke undoubtedly from the authority of ancient tradition. This tradition, however, never lessened the sentiments of admiration and piety, which were awakened by the sacred voice in the souls of its auditors;‡ they recognized in it a miracle according to the primitive meaning of the word. A wonderful circumstance, the invention of which they delighted to ascribe to the inspiration of the Gods, but which, we need scarcely add, was not at all supernatural. In the end, the idea of its divine origin darkened the minds of the multitude; and, perhaps, without the priests having attempted to deceive the worshippers, this wonder of art would have become transformed into a religious prodigy, which was every day renewed.

* "*Dimidio magicæ resonant ubi Memnone chordæ.*"

† Quoted by J. Phil. Casselius. *Dissertation sur les pierres vocales ou parlantes*, p. 8. Langlès, *Dissertation sur la statue vocale de Memnon. Voyage de Norden*, tome II. p. 237.

‡ See the inscriptions engraved on the colossal statue. M. Le Tronne has reunited and explained them in a work entitled *la statue de Memnon* (in-4to. Paris, 1833), p. 113—240.

## CHAPTER XIII.

Optics—Effects similar to those exhibited in the modern Dioramas and Phantasmagorias—Apparitions of the Gods, and shades of the dead—The Camera obscura—Magicians changing their appearances and their forms, is an incredible miracle.

ALL our senses are tributary to the empire of the marvellous; the eye is more so than the ear. By too much prolongation, agreeable sounds lose their charm; loud, fear-inspiring noises become merely deafening; and miraculous voices become suspected; but optical illusions, though succeeding each other without a pause, never fail to keep up the attention of the individual eager after novel spectacles: their variety and their contrasts leave no space for reflection, nor cause any fatigue in beholding them.

From the nature of some optical wonders displayed in the assumed miracles of the Thaumaturgists, and in the pompous and terrible representations of mysteries and initiations, we are authorised to conclude that the aid of scientific resources was requisite for carrying them into effect. The ancients were acquainted with

the mode of fabricating mirrors, which presented the images multiplied or reversed; and, what is more remarkable, in certain positions lost entirely the property of reflecting. It is unimportant whether the latter peculiarity depended solely on sleight of hand, or was analogous to polarized light,* which reaching the reflecting body, under a certain angle, is absorbed without producing any image. It is very evident that, in either case, the employment of such mirrors was well fitted to give birth to numerous apparent miracles. Aulus Gellius,† quoting Varro, informs us of these facts, at the same time, he considers the study of such curious phenomena as unworthy the attention of a philosopher.

* On the supposition that light consists of particles of matter transmitted from the sun and luminous bodies, in rectilinear directions or straight lines, its polarization is the effect produced upon these particles by the attraction exercised upon them by the particles of what are called doubly-refracting crystals, and certain reflecting surfaces; when the particles of light pass through the former, or fall upon the latter at a particular angle.—Ed.

† Aul. Gell. *Noct. Attic.* lib. xvi. cap. xviii. The following is the termination of the Latin passage: "*ut speculum in loco certo positum nihil imaginet; aliorsum translatum faciat imagines.*" The compiler repeating what he has not proved, believes that the phenomenon belongs to the place, and not to the position of the mirror.

Aulus Gellius, a celebrated Roman grammarian, was born at Rome in the commencement of the second century, and died in the reign of the Emperor Marcus Aurelius. His "*Noctes Atticæ*" were written in the winter evenings, whilst he was in Attica, to amuse his children. The work is a medley of history, anecdotes, poetry, and dissertations on philosophy, geometry, and grammar; but it often affords good explanations of antique monuments.—Ed.

From whatever may have given rise to an opinion so unreasonable, yet so universal, even among the enlightened classes of the ancients, and held by Archimedes himself,* its vast advantage to the Thaumaturgists is easily perceived. Had those who, under the enlightening influence of increasing civilization, were the reformers of science devoted their efforts to the experi-

* Although the wonders related as having been achieved by this extraordinary mathematician have been probably exaggerated, yet there can be only one opinion of his advance far beyond the period in which he lived, in every branch of physical science. Independent of the machinery which he is said to have employed to lift out of the water, and again drop into it, the barks that constituted the fleet of Marcellus, the Roman Consul, when he besieged Syracuse, the burning mirrors which he constructed to set on fire the enemy's fleet is a sufficient proof of his acquirements. According to Tzetzes, the historian, who has recorded the events of the siege, "when the fleet of Marcellus was within bow-shot, the old man, Archimedes, brought an hexagonal mirror, which he had previously prepared, at a proper distance from which he also placed other smaller mirrors of the same kind, that moved in all directions on hinges; and when placed in the sun's rays, directed them upon the Roman fleet, whereby it was burnt to ashes." The screw known by his name, and now employed instead of paddles in steam navigation; and the art of determining the value of metals by their relative specific gravity, are among the inventions ascribed to Archimedes. His acquaintance with the power of the lever led him to make this celebrated declaration—"Give me the place on which I may stand, and I will move the earth." He was so deeply engaged in solving a problem when the Roman soldiers entered Syracuse, that he was not aware of their being in possession of the town; and a soldier, not knowing who he was, killed him, although Marcellus had given orders intended to secure the safety of the philosopher. His death occurred 212 years before the birth of Christ.—Ed.

mental elucidation of phenomena, instead of confining themselves to theoretical inquiries, the miraculous secrets of the charlatan could no longer have merited the name of magic.

The luxurious gardens, the magnificent palaces, which in the initiations suddenly appeared, from the depths of obscurity, brilliantly illuminated by magic light, or, as it were, by a sun of their own,* are reproduced for us in the justly-admired modern invention of the Diorama. The principal artifice lies in the manner of throwing light upon the objects, while the spectator is kept in darkness. This was not difficult, as the initiated hurried from one subterraneous apartment to another; and, being now elevated in the air, and again suddenly precipitated, he might easily imagine himself to be still in the bowels of the earth, from the obscurity of the place that inclosed him, although on the level of the ground. And how, we may inquire, could it happen that the Thaumaturgist, whose whole aim was to discover means of multiplying his wonders, could remain unacquainted with this invention? Observation was sufficient to reveal it, without any effort of art. If a long gallery was terminated by an arbour of umbrageous trees, and the gallery lighted at one extremity only, the landscape, beyond the arbour, would appear nearer, and display itself to the eye of a spectator like the picture in a Diorama.

The illusion was susceptible of being increased, by

* . . . . . *Solem que suum, sua lumina norunt.*
Virgil. *Æneid,* lib. VI. ver. 641.

the union of mechanical agents aiding the effects of painting and of perspective. Thus, in the Diorama, exhibited in Paris, in 1826, representing a ruined cloister,* a door was violently closed and opened, as if from the effects of a strong wind. When open, an extensive beautiful country was seen beyond it; shadows were cast, by trees, on the old walls, more or less deep, according as the clouds flew rapidly across the sky above the ruins, and might be supposed occasionally, to interrupt, more or less, the light of the sun. When this artifice, however little it is estimated by the severer votaries of the fine arts, transported the credulous spectator to the interior of a sanctuary, and displayed before him, excited as he was by other apparent miracles, would he have had the smallest doubt regarding the reality of the appearances; or, that they were true representations of animated nature?

Apparitions, although the most common of miracles founded on optics, have obtained the greatest celebrity.

In very remote times, and under the empire of unprogressing civilization, it was believed that every man who had seen a God must die, or at least lose the use of his eyes. This singular belief, the cause of which we shall notice elsewhere, and the dread it excited in the ardent imaginations of the enthusiastic, yielded in time, owing to the direct communication with the object of his adoration, which circumstances afforded. Apparitions of the Gods, far from being

* The cloister of Saint Wandrille, near Rouen.

dreaded, were deemed significant of their favour; and hallowed the place, where they received the homage of mortals. The Temple of Enguinum, in Sicily, was revered, not so much on account of its antiquity, as because it had been occasionally favoured by the apparition of the Goddess-Mothers.* Esculapius had a temple at Tarsus, where he frequently manifested himself to his worshippers.† Cicero mentions frequent apparitions of the Gods.‡ And Varro, quoted by St. Augustine,§ affirms that Numa and Pythagoras saw images of the Gods in the water, and that this kind of divination had been brought from Persia into Italy, as well as the art of causing apparitions of the dead.‖ In

* Plutarch. *in vit. Marcell.*

† Philostrat. *in vit. Apollon.* lib. I. cap. v.

‡ Cicer. *de natur. Deor.* lib. II.

§ S. Augustin. *De civitate Dei.* lib. VII. cap. XXXV.

‖ The efficacy of invocation of the dead, is not doubted by St. Justin, (*Pro christianis.* Apoll. II.) In the dialogue with the Jew Tryphon, this father of the church acknowledges that the souls of the just, and of the prophets, are subject to the power of the Psychagogues, as the soul of Samuel obeyed the witch of Endor.

The ancient Greeks, who obtained their theology from the Egyptians; the Romans, who procured theirs from the Greeks, and the northern nations, who followed the superstitions of both, were firm believers that the souls of the dead revisited the earth, and appeared to the living; and that magicians had the power of calling them up. They also believed that the spirits of the departed were capable of foretelling future events. Spirits were, therefore, apparently called, and the images of the dead presented to the eyes of the living. It was not essential that these should necessarily be deceptions of the priests; for when the mind is

fact, these two arts ought to form but one; and we find them in Asia, long before the age of Numa, or of

prepared for them, and the nervous system is in an excitable state, spectral phantasms are both seen and heard.

It is unnecessary to insert here any of the many thousand tales of apparitions which have been recorded both in ancient and in modern times, in every country in both hemispheres of the globe; my object being to explain these spectral-phantasms, not to relate instances of them, except such as may be useful for the illustration of my argument. I contend that these phantasms never occur in a healthy condition of the brain and nervous system, which, in order to produce them, must be either transiently or permanently excited.

Under transient changes from the normal state of the nervous system, if these have been produced by an exciting agent, all ordinary sensations are felt with an increased intensity; and, consequently, in certain states of the habit, impressions of former things, by the influence of association alone, awakened, as it were, by incidental circumstances, become so vivid to the mind, that they appear as actual impressions perceived at the moment through the organ of sight. The inhalation of some gases, as, for instance, nitrous oxide, and the excitement of the mind by expectation, will produce such a change in the nervous centres as will cause either the most pleasurable or the most frightful sensations to be experienced, accompanied with vivid images of a corresponding character. The delirium of a fever is an augmented derangement of the nervous system; during the continuance of which, images of persons often long before dead became vivid to the eye, and their voices audible to the ear, so that the patient sees them, and holds conversation with them, and can only be aroused from the reverie by some one really speaking to him, and for a moment interrupting the morbid association of ideas; into which, however, he relapses, as soon as his attention ceases to be directed into a new channel. Such spectral illusions occurring independent of fever, in a highly susceptible frame, operate so energetically on the brain, as to make impressions sufficiently power-

Pythagoras. The witch of Endor, who summoned before Saul the shade of Samuel, declared she saw Gods

ful to produce disease, and even to destroy life, when a confirmed belief in their reality exists. Many cases might be quoted corroborative of this opinion. I will mention two only. A distinguished physician having suffered great fatigue from a long professional journey, during which he had taken scarcely any nourishment, after seeing his patient, retired to his sleeping apartment, and sat down before the fire, previously to undressing and going to bed. He had not sat long, before he imagined he saw the door of the room open, and a little old woman, dressed in a scarlet riding-habit, enter, leaning on a crutch. She advanced towards him, and raising her crutch, gave him a blow with it upon the head. He fell to the ground, and lay a considerable time insensible; but on recovering his senses, he became conscious that he had had an epileptic fit, and that the little woman was a mere spectral illusion. The daughter of Sir Charles Law, being awake about two o'clock in the morning, saw close to her bed the apparition of a little woman, who told her that she was her deceased mother; that she was happy, and at twelve o'clock that day she should be with her. On receiving this information, the young lady called her maid to bring her clothes; and when she was dressed, she went into her closet, and did not leave it until nine, and then brought with her a sealed letter, addressed to her father, which she delivered to her aunt, the Lady Everard, told her what had happened, and desired that as soon as she was dead it might be sent to him. She requested the chaplain to read prayers to her; and, when these were ended, she took her guitar and psalm-book, and sat down upon a chair, "and played and sung so melodiously and admirably that her music-master, who was then there, admired at it. And near the stroke of twelve, she rose and sat herself down in a great chair with arms; and fetching a strong breathing or two, expired." In the first of these two cases, the physician was a man of strong mind, and possessed of that knowledge which enabled him to refer the illusion to a temporary physical change in his nervous system, and therefore to disregard it. The lady

rising out of the earth.* This expression, repeated more than once, in the text, serves to interpret a passage in Pliny, where he speaks of a seat, made of a consecrated stone, and placed in the ancient temple of Hercules at Tyre; from which "The Gods arose," or in other words, from which miraculous apparitions appeared to issue.†

was a person of delicate frame of body and highly susceptible nervous system, with a corresponding degree of superstitious credulity, which induced her to believe that the illusion was truly a visitation of her deceased mother, the overpowering effect of which upon the brain was sufficient to verify the prediction. To the same cause may be referred the well-known death of the libertine Lord Lyttleton.

When the derangement of the nerves is of a more permanent nature, it is frequently productive of that description of hypochondriasm which borders upon insanity, but differs from it in the patient not believing in the reality of the spectral phantasms, which are generally also of a different character, not transient visitations, but continued illusions. I was acquainted with a young lady, who imagined that she was constantly attended by a small black dog, which ran by her side when she walked out, and sat on a table or on a chair near her at home. Sir Walter Scott, in his "Demonology," details the case of a gentleman who imagined that a little smartly dressed fop always attended him, in the capacity of a master of ceremonies, and, after some length of time, changed into a skeleton, which always remained near him, night and day. He was sensible both were illusions, but the distressing character and the constancy of the latter, brought on a state of irritative fever, which terminated fatally.

Looking at these conditions of the nervous system, and their results, I have no hesitation in referring to them every tale of apparitions, however well authenticated, ancient or modern.—Ed.

* 1 Kings, cap. xxviii.

† Plin. *Hist. Nat.* lib. xxvii. cap. xl.—Eusebius, *ex eo lapide . . . . facta sedes, ex quâ Dii facile surgebant.*

Among a people, situated far from Asia, but one of whose colonies occupied a part of the shores of the Euxine, traditions and secrets exist referring to the art of questioning the dead. In the *Hervorar Saga*, we find a Scandinavian poet clothing in exalted poetry, the invocations to a warrior killed in battle; the long resistance by which he opposed the demand made to him to yield; the menacing predictions which he uttered; and by which he threatened vengeance for the violence of his death.

An art transmitted by Persia to Italy was not likely to remain unknown in Greece; and, at a very early period, we find traces of it there. "Orpheus inconsolable for the death of Eurydice," resorted to Aornos,* where stood a sanctuary (Nekyomantion), for the invocation of the dead. He was led to imagine that he was followed by the shade of Eurydice; but on turning, and finding himself deceived, he committed suicide.† This historical explanation of the fable of Orpheus, reveals to us the curious fact of the existence, in ancient times, of places, specially consecrated to the invocation of the dead, and the apparition of spirits.

Sometimes these shades were dumb; but more frequently the engastrimysme, which was employed by the

* Aornos was situated in Thesprotia, and was the place of a celebrated Oracle, which delivered responses by calling up the dead. But the whole story of Euridyce is properly regarded as a mere allegorical allusion to events connected with the religious observances which Orpheus attempted to establish; and the moral instructions which he taught in opposition to the Bacchanalian mysteries, and their gross immoralities.—Ed.

† Pausanias. *Bœotic.* cap. xxx.

sorceress consulted by Saul, generally furnished them with speech, and enabled them to utter Oracles. This conjecture, not easily set aside, throws a new light on the Eleventh Book of the Odyssey. There Homer describes the admission of Ulysses, and of him alone* into a Nekyomantion, where he converses with his friends, who have been separated from him by death. An innumerable multitude of apparitions, and a terrific noise interrupted this marvellous discourse; and Ulysses retires, dreading lest Proserpine enraged might, from the depths of the infernal regions, cause the head of the Gorgon to appear.† Such was, probably, the method put in practise, in order to get rid of the spectators, as soon as their curiosity became embarrassing, or was prolonged beyond the resources for the exhibition.

It is into one of these that Achilles is introduced by Homer, extolling life as the greatest blessing, preferring the most miserable lot of a living man, before his own imperishable celebrity.‡ The inconsistency of the spirit of Achilles with the established character of the intrepid warrior has been severely criticised. As a poetic fiction it may be open to censure, but it is to be admired for its fidelity as a narration. An epoch existed, and it was, in Greece, still recent at the date of the siege of Troy, in which the priesthood, till then commanding exclusively the veneration of men, became indignant, in seeing the warriors crowned with any other titles than those of courage and strength, and those which their

* *Odyss.* lib. x. vers. 528.

† *Odyss.* lib. xi. vers. 631—634.

‡ *Odyss.* lib. xi. vers. 486—490.

battles claimed for them; recognised as the children of Divinities, as *Demi-Gods* and *Heroes;* and occupying the admiration and influence which they conceived to be due only to the possessors of the magical art. What doctrines, conveyed by religious revelation, was it their interest to promulgate? Such undoubtedly as were best fitted to check the enthusiasm of the warrior. And in Greece, with the refinement of art, they adroitly chose the great soul of Achilles to be the means of communicating that pusillanimous sentiment, which implies that "A living dog is better than a dead lion."* At least two centuries subsequent to the travels of Ulysses, the same lesson was inculcated on the warlike Arabs, in a work evidently emanating from the theocratical school.

The dispute between the censer and the sword appears to have been quite at an end, when Virgil undertook to tread in the steps of Homer: and the poet would have gratuitously dishonoured himself, had he placed in his hero's mouth words opposed to the contempt of death. The sixth book of the Æneid is a magnificent picture of the most prominent and dramatic scenes of initiation, rather than a description of a Nekyomantion.

From the commencement of its purely historical times, the art of invocation declined in Greece. The last apparition that restored it to notice, was that of Cleonice, who appeared to her murderer Pausanius. Remorse and love drove this Prince to a Nekyomantion. There the Psychagogues summoned the shade of Cleonice to appear before him; the ambiguous answer he received

* *Ecclesiast.* cap. IX. vers. 4.

from her, might be interpreted either as conveying the pardon of Heaven, or the announcement of a violent death to Pausanias, as the just punishment of his crimes.*

Elysius of Therina having lost an only son, and desirous to invoke the spirit of this beloved child, unexpectedly visited a Pschycomantium; but as there was no time to prepare an apparition, bearing the resemblance to the object of his affection, the bereaved father was obliged to rest satisfied with an oracle which declared death to be the greatest boon.†

We should be in error were we to conclude from this fact, that the art had perished in Italy: when Cicero wrote, it still existed in Rome; and that author, in several places, speaks of experiments in Pschycomantics, to which his cotemporary Appius was greatly addicted.‡ Two centuries later Caracalla invoked the shades of Commodus and of Severus.‖

One cause, however, effectually operated to prevent the people from frequenting the Nekyomantions: namely, the terrible consequences which sometimes arose from these apparitions. Those that applied for them, were not always mere restless, inquisitive, men, eager to

* Pausanias. *Laconic.* cap. XVII.—Plutarch. *De sera numinum Vindictâ.*

† Cicer. *Tuscul. Quæst.* lib. I. cap. XLII.—Plutarch. *De consolatione.*

‡ Cicer. *De divinat.* lib. I. cap. LVIII.—*Tuscul. Quæst.* lib. I. cap. XVI. et XLVIII.

‖ Xiphilin. *in Caracallâ.*—*Dion.* lib. LXXVII.

dive into the secrets of futurity; they were more frequently persons, like Orpheus or Elysius, beings full of love and deprived, by death, of the object that had engaged their fondest affections. Thus the faithful wife of Protesilaus, importuning the Gods to grant her, but for one moment, to behold again her husband who had fallen on the shores of Troy, no sooner saw his spirit, than, without hesitation, she endeavoured to follow him by precipitating herself into the flames, and was destroyed. These apparitions acting on broken hearts and exalted imaginations at a crisis of grief, the sensitive being fled to death as the greatest blessing; and with a strong conviction that death would afford a reunion with the dearer and better part of itself.

Nothing was more calculated to aid such a belief than the apparition, which, in restoring for an instant the semblance, seemed to point out the road by which fondly remembered felicity might be regained.

Disuse, however, although it threw into oblivion, yet did not annihilate the secret of invoking apparitions. In the second century, St. Justin mentions invocations of the dead, as a fact which no one thought of doubting.*

* S. Justin. *Apologet.* lib. II.—St. Justin, called the Philosopher, was born at Neapolis, the ancient capital of Samaria, early in the second century. He was educated in all the errors and superstitions of Paganism; but after seeking for truth in the schools, he was converted to christianity by an old man he met accidentally on the sea-shore; and he soon afterwards went to Rome. His previous education had conferred upon him the powers of elocution, in an eminent degree; and he employed it assiduously in promoting and defending the faith he had adopted. Justin left Rome, but returned; when he was arrested and carried

Lactantius,* in the third century, still more positively represents the magicians as always prepared to convince the sceptical by apparitions of the dead.† In the ninth century, the Emperor Basil, the Macedonian, inconsolable for the death of his son, had recourse to the prayers of a Pontiff already celebrated for the power of working apparent miracles.‡ An image of this dear son, magnificently apparelled, and mounted on a superb horse, was made to appear before him; but, the spectral son advancing towards him, disappeared, in the act of rushing into his father's arms. To explain this historical extract, is it requisite to admit the improbable supposition, that a horseman was appointed

before Rusticus, the Roman prefect, who after endeavouring to persuade him and his companions to renounce christianity and return to the worship of the Gods, and finding them immoveable, condemned them to be scourged, and then beheaded; a sentence which was immediately executed. St. Justin's martyrdom occurred in A.D. 164. He wrote two works in support of Christianity, which he termed "Apologies;" the first was addressed to the Emperor Antoninus, the second to Marcus Aurelius.—ED.

* Cæcilius Ferminius Lactantius, was in his youth a disciple of Anobeus at Sicca in Africa, and celebrated as a Latin orator. In 317, when an old man, he was appointed preceptor to Crispus Cæsar, the son of Constantine the Great; and in the execution of that trust, he nearly fell a victim to a false accusation of the Empress Fausta, that he had made an attempt upon her chastity. He early became a convert to the Christian faith; and, on account of his eloquence, was called, the "Christian Tully." He outlived his royal pupil, and died at Triers.—ED.

† Lactant. *Div. institut.* lib. VII. cap. XIII.

‡ Theodore Santabaren, Abbot Archbishop of Euchaites. See *Glycas, Annal.* part IV. page 296; *Leo. grammat. in vitâ Basilii imp.* § 20.

to play the part of the young Prince, as the resemblance must have been perfect; and would not the father have seized, held, and folded him in his embrace? And would not the false nature of the apparition have been discovered and denounced, by the enemies of the Thaumaturgists,* on the knowledge of the existence of the man; and would not the remarkable resemblance, which made him of use on this occasion, have afterwards discovered him.†

Connecting this fact with earlier traditions, and particularly with the very ancient writers on the Nekyomantions, is it not more consistent with probability, to acknowledge that in our own days, the phantasmagoria has been only restored, not invented,‡ and to trace many of the apparitions of the Gods, and the invocations of the dead to its deceptions;‖ especially when we read of

* The resemblance of a woman named Oliva, to the Queen Marie Antoinette, aided in 1785, the intrigue known by the name of the *Procès du Collier*. But Oliva was soon arrested and tried. The substitute for the son of the Greek Emperor would have been seized in like manner, by the rivals of Santabaren: for envy is as clever, and active as a police, especially at court.

† Sir David Brewster has explained the mode in which this apparition was produced by means of two concave mirrors reflecting the image of a picture of the Emperor's son on horseback, as if in the air. As the picture was approached towards the first mirror, the image appeared to advance into the father's arms, when it was withdrawn, it of course eluded his grasp.—Ed. See *Letters on Natural Magic*, p. 68.

‡ See in the *Souvenirs d'un homme de cour*, tome 1. pages 324—329, the account of a phantasmagoric apparition, which dates about the middle of the eighteenth century. It consisted particularly in giving the appearance of life and motion to figures on tapestry.

‖ Pythagoras taught that the spirits of the dead do not wink

shades, endowed with a striking resemblance, to the beings, or images they represent, suddenly vanishing from the embrace that would retain them?

with their eyes. The assertion is just, says our author; as this movement would be difficult to manage with a phantasmagoric apparition. But the Editor must remark that it is not so difficult; and that it was executed to the life in the exhibition of M. Philipstal.

The phantasmagoria brought out in London in 1802, by M. Philipstal, produced the most impressive, and, in some instances, terrific effects upon the audiences who thronged to witness the exhibition. The theatre was in profound darkness, and the stage, which represented a cavern with terrible figures and skeletons displayed in relief upon its walls, was dimly seen through a gauze screen, invisible to the audience, and upon which all the spectral appearances were represented; and through which lightnings flashed, whilst thunder, intended to prepare the mind for the terrific exhibition, rolled over the heads of the spectators. The figures thrown upon this screen were reflected from a concave mirror, through double lenses, constituting the well-known magic lantern; but modified in such a manner that they appeared to advance and recede; to dilate to a gigantic magnitude, and then immediately diminish to the size of pigmies; to come forward with all the appearance of real life, and on retiring instantly to return in the form of skeletons. Terrific heads, moving their awful eyes and tremendous jaws, seemed close to the spectators' eyes, then suddenly vanished; and were succeeded by spectres and skeletons of the most frightful aspect. The writer of this note saw this phantasmagoria, and can easily conceive the effect which it is fitted to produce, when skilfully worked, upon ignorant and superstitious spectators. If we can suppose that the ancients were acquainted with the influence of the combination of mirrors and lenses, which admits of living objects instead of pictures being employed, as described in "*Brewster's Natural Magic*," p. 86, the representations of Gods, and the apparitions of the dead, appearing at the command of magicians and of priests

We might borrow from P. Kircher* a description of the instruments which probably formed the phantasmagorias of the ancient temples: but it will be more curious to display their effects as they have been described by a disciple of the philosophical Theurgists. "In a manifestation which must not be revealed. . . . there appeared on the wall of the temple a diffusive mass of light, which in becoming concentrated, assumed the appearance of a face evidently divine and supernatural, severe of aspect, but with a touch of gentleness, and very beautiful to look upon. According to the dictation of their mysterious religion, the Alexandrians honoured it as Osiris and Adonis."† In describing a modern phantasmagoria how could it be differently set forth?

Damascius‡ informs us, that this apparition was employed to prevent the rulers of the city from giving way to hurtful dissensions. The miracle had a political aim; indeed, we may discover the same object in many of the anciently recorded miracles; and even presume the existence of the same cause in nearly all of them.

The Camera Obscura served, in other cases, to reproduce moving and animated pictures. Here, the remark, regarding the Diorama, applies with greater force; namely, that simple observation serves to indi-

in the sanctuaries, may be readily and satisfactorily explained. An excellent account of an exhibition of demons, conjured up by a Sicilian priest, is given in the words of Benvenuto Cellini, who witnessed it, in Roscoe's life of that celebrated artist.—Ed.

* Kircher. *Œdipus*, tome II. page 323.

† Damascius apud *Photium Biblioth.* cod. 242.

‡ Damascius was a Stoic philosopher of Damascus, who wrote four books of extraordinary events which occurred in the age of Justinian.—Ed.

cate its use. If the window of a room is closed by a tightly fitting shutter, and a hole be made in it, the men, the animals, the passing carts, and all moving objects are seen clearly depicted on the ceiling: when sufficiently illuminated, the colours of the exterior objects, if at all bright, are perfectly recognizable in the picture; and even the images, as I have seen, preserve a very striking resemblance both in the details and as a whole, even, when in proportion to the original objects, the dimensions are only as one in twelve or fifteen.

That, in ancient times, these apparitions were the result of scientific means,* is proved by the fact, that,

* Nothing in my opinion can be more unworthy of human reason than the belief of the power of any class of men, good or evil, to recal the immortal essence of our being, after it has quitted its mortal vestment, and with a visible form, similar to that from which it has been for ever separated. If this opinion be correct, every spectral apparition,—every ghost which has rendered midnight hideous—every warning of supernatural voices that has fallen upon the ear of shuddering guilt—and every sound that has awakened the smitten conscience of the murderer—must alike be regarded as illusions of the mind, raised by extraneous circumstances acting upon a deranged nervous system, so morbidly excitable, that creative Fancy is set to work, and gives to aerial nothings a corporeal presence and a form. These spectral illusions, whatever appearance they may assume, are usually conjoined with, or productive of some prediction, which, if not fulfilled, is forgotten; but if, by any coincidence it should apparently be fulfilled, the mind becomes more strongly convinced of the truth of supernatural agency, and the empire of superstition and credulity gains an accession of power. The apparitions of the ancients, therefore, as we have no reason for doubting the accounts of them which have been transmitted by historians, must have assuredly been impostures, produced in the manner afterwards detailed in the text.—Ed.

by the aid of a convex lens, or concave mirrors, the Thaumaturgists were acquainted with the art of restoring an inverted image to its proper position. According to Theodoretus, and the Rabbins, the cause of the terror which seized, or was feigned by the Sorceress consulted by Saul, was owing to the shade of Samuel appearing in an upright posture; whilst till then the attitude of the spirits had been reversed.*

* Theodoret. in *Reg.* lib. I. quæst. LXII.—Theodoretus, a theologian of the fourth century, was born in A.D. 393, and educated under Theodore of Mapsuestia and John Chrysostom. He became a deacon in the church at Antioch, and in 423 was chosen Bishop of Cyrus, in Syria. The greater part of his life was occupied with the controversy carried on between the *Nestorians* and the Oriental Christians, or *Eutychians*. He died in 457.

There is, however, no necessity for this supposition of Theocritus and the Rabbins; for it is probable that the figure of Samuel did not appear at all, at least it was not seen by Saul; and if the witch could have produced it by her science, there would have been no cause of alarm on her part. Her dread arose from the fear of punishment from Saul. When the apparitions spoke, the deception was probably the effect of ventriloquism: for that ventriloquism was employed by the ancient sorcerers may be inferred from the fact that it, at this day, forms a part of the performances of the Eskimaux wizards. Captain Lyon details the performances of one of his Iglolik acquaintances, named Toolemak, in the darkened cabin of his ship. The wife of Toolemak sung the Annaaya during the whole performance. The first imitation was that of the invocations of the spirit Tronga, when a loud snorting, resembling that of the walrus, was heard; then the voice seemed smothered, and retreated beneath the deck, as if to a distance, when it ceased altogether. His wife said he had dived, in order to bring up Tronga, and in half a minute was heard distant blowing very slowly approaching, and a voice mingled with the blowing, until both the voice and

Buffon allows the possibility of the existence of the steel or polished iron mirrors, placed in the port of Alexandria for the purpose of discovering vessels at a great distance off at sea. It may be presumed, that long before falling into the service of industry, the sciences which suggested the construction of the mirrors of Alexandria were preserved in the temples; and apparent miracles, far superior to those we have just noticed, must have awakened the admiration of the people —and filled, even the philosophers, with astonishment.*

" If this mirror," says Buffon, " really existed, as it seems probable that it did, to the ancients belongs the honour of the invention of the telescope." May we be permitted to add to this weighty authority, one of a very different nature. In those ancient Tales of the East, whose details of miracles we conceive to have been founded on disfigured traditions, rather than to have been the inventions of a roving imagination, we find a tube spoken of, which was a foot long, and little more than an inch in

blowing became quite distinct; and the old woman said Tronga was come to answer any questions put to him by the Captain. He asked some questions, which were answered by two loud claps on the deck. A hollow voice next chanted, and was succeeded by a strange jumble of hisses, groans, shouts, and gabbling like a turkey. The voice then gradually sunk from hearing, and was succeeded by a sound not unlike the wind on the bass chord of an Æolian harp, which " soon changed to a rapid hiss like that of a rocket, and Toolemak, with a yell, announced his return." When the light was admitted, the ventriloquist was apparently much exhausted by his performance, " which had continued for at least half-an-hour."—Ed. *Private Journal* of Captain G. F. Lyons. Lond. 1824. p. 358.

* Buffon. *Histoire naturelle des minéraux. Introduction, sixième mémoire,* art. II.

diameter, and at one extremity furnished with a glass. By the application of the eye to one end of this tube, a person saw every thing he desired.* Let us substitute for this, the apparent miracle of perceiving an object lost to the naked eye by its distance; and the magic instrument becomes an opera-glass, if not a telescope.

May we not refer to a knowledge of the refraction of light, an extraordinary faculty, of which the writers, of different ages and countries have spoken, in order to assure ourselves that they have not copied from one another?

Thus, as we are told, Jupiter, in love, transformed himself, alternately, into an image of Diana and of Amphytrion; and Proteous and Vertumnus could change their forms and aspects at will. These are dazzling mythological fictions, the brilliancy of which conceals their absurdity. But when a biographer relates that, under a borrowed appearance, his hero deceives even his friends, he becomes ridiculous, because the excessive credulity into which his enthusiasm has betrayed him appears; and the relation of several such adventures would only be met with scepticism. We do not speak, however, of an isolated fact, but of an universal art. "The end of magic," says Iamblichus, "is not to create beings, but to cause images resembling them to appear and soon again to vanish, without leaving the slightest trace behind them."†

Among the conquests of Genghis Khan‡ was a town,

* *Mille et une Nuits*, 606e Nuit, tome v. p. 254—256, etc.

† "*Ejus-modi namque magicæ finis est, non facere simpliciter, sed usque ad apparentiam imaginamenta porrigere, quorum mox nec vola, quod dicitur, compareat, nec vestigium.*" (*Iamblich. de Myst.*)

‡ Gengis Khan flourished in the end of the sixth and the beginning of the seventh century.—Ed.

the mart for all the commerce of China. "The inhabitants," says the historian,* "were versed in an art which could cause that which is not to appear, and that which really is to disappear." "Men," says Suidas,† "who were called Magi (magicians), knew how to surround themselves with delusive apparitions." His translator adds, by way of explanation, "who so deceived the eyes of men, by their miracles, as to appear utterly different from what they really were." Saxo Grammaticus,‡ who, besides the Greek and Latin authors now lost to us, consulted the traditions imported with the religion of Odin from Asia into the North of Europe, speaking of the illusions produced by the scientific magicians, says:—"Very expert in optical delusions, they succeeded in giving to themselves and others the appearance of various objects, and, under attractive forms, to conceal their real aspect." ‖

John of Salisbury,§ who doubtless had access to sources no longer open to us, relates that "Mercurius,¶ the most skilful of the magicians, had discovered the secret of fascinating the eyes of men in such a manner as to render

* *Histoire de Gengis Khan*, p. 471—472.

† Suidas, verbo *Magos*.

‡ A Danish author of the twelfth century, who wrote a history of Denmark of mixed authority.—Ed.

‖ Saxo Grammat. *Hist. Dan.* lib. I. cap. IX.

§ He lived in the reign of Henry VII.; and although that period was ranked among the dark ages, yet John of Salisbury was a man of learning, and well versed in the Greek and Latin languages, mathematics, and every branch of natural knowledge then known. His principal work is entitled, "*Polycraticon*."—Ed.

¶ Trismegistus Mercurius, or Hermes, one of the Egyptian Magi, who was a contemporary of Moses, when he led the children of Israel from Egypt.—Ed.

persons invisible, or rather to give them the appearance of beings of a different species."*

Simon, the magician,† could also make another man resemble him so exactly, as to deceive every one. An ocular witness, the author of the "Recognitions," ascribed to Pope Saint Clement, relates this incredible story.‡

Pomponius Mela attributes to the Druidical priestesses of the island of Sena the art of transforming themselves into animals at will;‖ and Solinus§ regards the enchantments of Circe as delusive apparitions.

Eustathius¶ enters into important details. In Homer, Proteus transforms himself into a consuming fire. "This," says the commentator,** "must be understood as a mere apparition; thus Proteus becomes a dragon, a lion, a boar, &c., not really changing, but only appearing to be

* Joan. Salisb. *Policr.* lib. I. cap. IX.

† Simon Magus was a Samaritan by birth, a Pagan, and addicted to sorcery. He, nevertheless, pretended to believe in Christianity, and was baptized by Philip, the deacon; but when Peter and John went to Samaria, he offered them money to bestow upon him the same power which they possessed. Peter sharply rebuked him, and refused his request, saying, "Thy money perish with thee, because thou hast thought that the gift of God may be purchased with money." (*Acts*, chap. VII. ver. 20.) He was one of the earliest supporters of the Gnostic system, addicted to abominable vices, and one of the principal opponents of Chirstianity.—ED.

‡ *Recognit.* lib. X. *Epitome de rebus gestis.* B. Petri.

‖ *Pompon. Mela.* lib. III. cap. VI.

§ *Solin.* cap. VIII.

¶ Eustathius was Archbishop of Thessolonica in the twelfth century, under the Emperors Manuel Alexius and Andronicus Comnenus. He was a man of great erudition, and wrote a celebrated commentary on Homer, and on Dionysius the geographer. —ED.

** Eusthat. *in Homer. Odyss.* lib. IV. v. 417—418.

so." Proteus was a very learned, very versatile, and very adroit worker of miracles (Terasios), and was acquainted with the secrets of Egyptian philosophy. After having noticed Mercury, and other beings connected with the mythology, and who, by an apparent metamorphosis passed, like Proteus, from one form to another, Eustathius continues:—"Cratisthenes has been admired for the same art: he created an appearance of flames which seemed to issue from him, and to display a peculiar motion. He also contrived other apparitions, by which he forced men to confess their thoughts to him. Such, also, were Xenophon, Scymnos, Phillipide, Heraclidus, and Nymphodorus, who forced men to obey their wills by inspiring them with dread."

Athenæus* speaks in similar terms of Cratisthenes and of Xenophon, who appeared to create flames; and of Nymphodorus; all three skilful in deceiving men by apparent miracles, and terrifying them by apparitions.†

What, we may inquire, were these apparitions? The term has no equivocal meaning; for the commentator proposes to prove, that the pretended metamorphoses of Proteus‡ are to be considered as apparitions; it was, therefore, necessary that the enchanters should themselves appear clothed in the forms with which they alarmed the spectators.

But let us remark that, in asserting their possession of

* Athenæ, *Deipnosoph.* lib. I. cap. XIV.

† Some idea of the manner in which this was performed is given in a subsequent note.—Ed.

‡ A Greek, a native of Nancratis, in Lower Egypt, who lived in the third century. His work, entitled "*Deipnosophista*," is a very curious performance, treating chiefly of the pleasures of the table, and illustrating ancient art.—Ed.

this talent, neither Eustathius nor Athenæus describe Cratisthenes or Xenophon as being endowed with supernatural power; both of these, as well as Proteus, are mentioned only as skilful adepts in deception.

In another age, and in another hemisphere, we hear of a similar apparent miracle. It is mentioned by Joseph Acosta, who, towards the end of the 16th century, resided in Peru; he affirms that there existed at that epoch sorcerers who possessed the power of taking any form they pleased. He relates that the ruler of a city in Mexico, who was sent for by the predecessor of Montezuma, transformed himself, before the eyes of the men who went successively to seize him, into an eagle, a tiger, and an immense serpent. At last he yielded, and was conducted to the Emperor, who condemned him to death.* No longer in his own house, and no longer within his own theatre, he then lacked the power of working miracles in order to save his life.

The Bishop of Chiapa (a province of Guatemala), in a writing published in 1702, ascribed the same power to the Naguals, or national priests, who laboured to win back to the religion of their ancestors the children brought up as Christians by the Government. After various ceremonies, when the child he instructed advanced to embrace him, the Nagual suddenly assumed a frightful aspect; and, under the form of a lion or tiger, appeared chained to the young Christian convert.†

It may be observed, that these apparent miracles, like

* Joseph Acosta. *Histoire Naturelle des Indes*, etc. *feuillets*, 251 et 351—358.

† *Recueil de Voyages et de Mémoires, publié par la Société de Géographie*, tome II, page 182.

those of the Mexican enchanters, were performed in a place previously chosen and adapted to the purpose; they prove, therefore, simply a local power; they indicate the existence of a mechanical art; but they do not lead to an acquaintance with its resources.

May not the fire with which, after the example of Proteus, Cratisthenes and Xenophon enveloped themselves, have served to conceal some other operation?

It is well known that the ancients often thought they could perceive objects of a determinate figure in the midst of a body of flame. The vapour of burning sulphur, and the light of a lamp fed by a particular unctuous substance, were made use of by Anaxilaus of Larissa* to work various apparent miracles, which are referable not so much to magic, as to real experiments in physics.†

A modern wizard,‡ in the revelation of his secrets, allows the possibility of producing an apparition in smoke. The Theurgists caused the appearance of the Gods in the air, in the midst of gaseous vapours, disengaged from fire.‖ Porphyrus admires this secret; Iamblichus§ censures the employment of it; but he confesses its existence, and grants it to be worthy the attention of the inquirer after truth. The Theurgist, Maxi-

* Anaxilaus was banished from Italy by Augustus, on account of his impostures.—Ed.

† Plin. *Hist. Nat.* lib. xxviii, cap. ii, xxxii, 52. lib. xxxv. cap. xv. Anaxilaus had composed a book quoted by Saint Ireneus, and Saint Epiphanes, and intitled παίηνια, Jeux, Enfantillages.

‡ These illusions were evidently produced by concave mirrors, as explained in a former note. They required the aerial, reflected images to be thrown into the midst of smoke.—Ed.

‖ Robertson. *Mémoires,* &c. tome i. page 354.

§ Iamblichus. *De mysteriis.* cap. xxix.

mus, undoubtedly made use of a secret analogous to this, when, in the fumes of the incense which he burned before the statue of Hecate, the image was seen to laugh so naturally, as to fill the spectators with terror.*

Such illusions, supposing there were ever anything real in them, may have been managed by the magician who had previously surrounded himself with apparent flames. But we will not dwell on doubtful probabilities, nor attempt to explain what we can scarcely regard as credible. Our aim has been merely to excite reflection on narrations which refer the same apparent miracle to many different places. They prove, at least, that in employing either science or subtlety, the Thaumaturgists had carried out the art of optical deception far enough to raise an exaggerated, or rather an absurd idea of their power. Indeed we may conclude that they were acquainted with wire-gauze; as we are told in the fable of Vulcan, that he made an iron-net as delicate as a spider's web, in order to expose the infidelity of his wife with Mars. May we not, therefore, conjecture that they might have used wire gauze on the same principle as did Sir H. Davy.†

* Eunap. *in Maximo.*

† If we admit that the ancients possessed a knowledge of many extraordinary inventions, which have been regarded as altogether modern, we may suppose that the knowledge of non-conducting substances, and of substances such as wire-gauze, through which flame cannot pass, the foundation of Sir H. Davy's safety-lamp, was not unknown to them. The Chevalier Aldini, early in this century, invented an incombustible dress, by means of which firemen can proceed with impunity into the midst of flames. The body, arms, and leg-pieces are made of strong cloth, steeped in a saturated solution of alum, while the cap which covers the whole

head and neck, and is perforated only with openings for the eyes, nostrils, and mouth, and the gloves and shoes are made of cloth of abestos. Over this dress is placed another, made of iron-wire gauze, consisting of a casque, or cap, and mask, large enough to leave a space between it and the asbestos cap; a cuirass, with brassets; armour for the trunk and the thighs; and a pair of double boots. There is also an oval shield, made of the wire-gauze, stretched on a slender frame of iron.

Many experiments were made to prove the efficacy of this apparatus. Among others, two parallel rows of straw and brushwood, supported by iron wires, extending thirty feet, were placed three feet apart, and then set on fire. The heat was sufficient to prevent any one from approaching nearer than eight or ten yards from the fire. Six firemen, however, habited in the above dresses, marched repeatedly to and fro, through the whole length of the double row of flames uninjured. They breathed without difficulty in the midst of the flames, so completely was the heat of the air which entered their lungs interrupted by the wire-gauze cap. In another experiment, a fireman remained so long enveloped in flames and smoke, which rendered him invisible, that doubts were entertained of his safety; but he issued from them uninjured. —Ed.

## CHAPTER XIV.

Hydrostatics—Miraculous fountain of Andros—Tomb of Belus—Statues that shed tears—Perpetual lamps—Chemistry—Liquids changing colour—Condensed blood becoming liquid—Inflammable liquid—The art of distilling alcoholic liquors was formerly known, even beyond the temples.

MEANS yet more simple and more easily exposed than those already noticed here, served to give the phenomena of Occult Science the appearance of miracles. In the island of Andros* was a fountain esteemed miraculous, from its discharging wine for seven days, and water only during the rest of the year.† An elementary acquaintance with hydrostatics, and the effects of the pressure of fluids, serve to explain this apparent miracle, as well as that connected with another fountain at Rome, which, on the return of Augustus to the city, after the war in Sicily, flowed with oil‡ during an entire

* Andros was an island in the Ægean sea, in the capital of which, called also Andros, was a temple of Bacchus, and the above celebrated fountain. The apparent miracle was performed during the ides of January.—ED.

† Plin. *Hist. Nat.* lib. II. cap. CIII.

‡ Paul Orose, who relates this prodigy, believes it to be a prophetic emblem of the birth of Christ, under the empire of Augustus. We think that this fact was not in its commencement

day. Another apparent miracle was performed every year at the feast of Bacchus, in a town of Elis :* three empty urns, that were closed in presence of the strangers attracted in crowds to this spectacle, on being reopened, were found to have filled themselves with wine.† A more striking exhibition might have been obtained, by employing the machine to which we give the name of the Fountain of Heron, (although, in all probability, it was not invented, but simply described by that mathematician), as the water poured into the reservoir before the eyes of the spectators, would seem to have issued from it in the form of wine.

It is believed, with much probability, that the representation of the infernal regions, as they were conceived by the Greeks, formed a part of the celebration of the mysteries. The curious punishment of the Danaides‡ must then have

exhibited as a miracle ; credulity allowed itself, subsequently, to be deceived by the figurative expressions made use of by contemporary writers, to celebrate the return of the conqueror. Fountains of wine, in these later days, have flowed in our own market places, on the occasion of public rejoicings.

* The capital of a country in Greece, where the Olympic games were celebrated on the banks of the Alpheus. It was celebrated for a temple of Venus, and a statue of the goddess made of gold and ivory, with the feet resting on a tortoise, the work of Phidias.—Ed.

† Athenæ. *Deipnosoph.* lib. i. cap. xxx.—Pausanias. *Eliac.* lib. ii. cap. xxvi.

‡ The daughters of Danaus, King of Argos, who with the exception of one, namely Hypermnestra, destroyed their husbands in the first night of their nuptials, at the suggestion of their father ; because an oracle had foretold his death, by the hands of one of his son's-in-law, all of whom were his nephews. Hyperm-

been displayed to the initiated, and history has indicated the manner in which this was managed. Xerxes caused the monument of Belus* to be opened. The body of this Prince lay in a glass coffin, nearly filled with oil, and bearing an inscription on the side of it, which conveyed the following warning: "Woe, woe to him, who having opened this tomb, shall neglect to fill the coffin!" Xerxes gave immediate orders to fill it up with oil; but, however great the quantity poured in, it was impossible to fill it. This phenomenon was regarded as the presage of those disasters which darkened, and finally terminated the life of Xerxes.† Hidden from notice by the position of the corpse, or by some less remarkable obstacle, was a tube, by which the coffin communicated with a reservoir of oil, owing to which that in the coffin was always kept at the same height; and the mouth of the

nestra was tried for her disobedience, in favouring the escape of her husband, Lynceus, but acquitted by the unanimous voice of the people. Her sisters were purified from the murder by Mercury, and Minerva, at the command of Jupiter; but condemned at death to eternal labour, in the regions of Pluto, by attempting to fill with water a vessel full of holes, so that the water ran out as soon as it was poured into it.—Ed.

* Belus, who was one of the ancient Kings of Babylon, reigned about 1800 years before Semiramis, and was deified at his death. His temple is stated to have been originally the tower of Babel: Xerxes plundered and demolished it. Among other curious relics, besides the coffin, were several statues of gold, one of which was forty feet high. The cause of the permanent level of the oil in the coffin, must have been discovered when the temple was destroyed: but, it nevertheless, in the mean time deluded the ignorant, and passed for a miracle.—Ed.

† Ktesias *in Persicis*.—Aelian. *Variar. Hist.* lib. XIII. cap. III.

tube opening at that point, carried off the surplus, and thus prevented the coffin from becoming full.

Formerly, the perspiration, or sweating of statues, which arose from the drops of water deposited upon them by the atmosphere saturated with aqueous vapour, which resolved itself into liquid on coming into contact with these cold dense bodies, was superstitiously regarded as really miraculous. Such a metamorphosis in our times, in damp weather and moist climates, is too frequently renewed to be turned to much account. But historians and poets unite in the assertion, that the statues of heroes and images of Gods have both perspired and also have shed visible tears, the certain presages of calamities about to descend on their fellow-citizens or worshippers. The determination of the Czar, Peter the Great, put an end to a pretended miracle of this kind at St. Petersburg. An image of the Blessed Virgin, painted on wood, wept abundantly, in order, so it was given out, to testify her abhorrence of the reforms projected by the Czar. Peter himself discovered and exposed to the people the mechanism by which the fraud was managed. A reservoir, filled with oil, was concealed between the two panels of which the picture consisted, from which the oil, thinned by the heat of the multitude of tapers lighted up around the image, was conveyed by conduits, and found its way through small holes at the angles of the eyes, thus representing tears as it filtered.* All the miracles of weeping statues, &c., are referable to similar artifices; and to the same source we may trace

* Lévêque. *Histoire de Russie.* (Eleventh Edition.) tome v. pages 161—162.

another of a somewhat different nature, related by Gregory of Tours. This historian saw, in a monastery at Poitiers, a lamp lighted before a fragment of the true cross, the oil of which miraculously overflowed, and in the space of an hour poured out a quantity equal to that contained in the reservoir. Indeed the rapidity of its rising increased in proportion to the incredulity at first displayed by the spectator.*

The learned of the sixteenth century have so often spoken of perpetual lamps, and the students of natural philosophy have so ardently sought to revive the secret, that we might suppose their credulity to be founded on, and the perseverance of their attempts to be sustained by, some tradition. For the realization of this seeming miracle, the fulfilment of two apparently impossible conditions was necessary. In the first place, it was necessary to provide an inexhaustible aliment for combustion; and in the second, to furnish an inconsumable wick for the combustion of this aliment. Recollecting the miracle at the tomb of Belus, the mystery is easily detected. At some hidden point, let a tube be placed by which the lamp may communicate with a secret reservoir, so large that the consumption of one, or even of several days, will but little alter its level: thus, the first part of the problem is resolved. The second disappears before the common invention of the present period, namely, that of lamps without wicks,† an invention resulting from the same

* Greg. Turon. *Miracul.* lib. I. cap. v.

† These lamps serve for night-lamps; but care is necessary to clean the tube frequently, otherwise they are liable to be extinguished. This inconvenience was not experienced where the

cause as the two last miracles we have cited, the dilatation of oil by heat. In the precaution of filling the concealed reservoir with regularity, there could be nothing embarrassing; and as to any perplexity from the necessity, in case of accident, of changing the tube at the orifice of which the expanded oil was inflamed, the wonder-worker was skilful enough, while giving it his own attention, to distract that of the spectators from his operations for a few moments.*

The agency of heat, in the expansion of oil, or any other liquid, belongs to another science than hydrostatics; thus, we are naturally led to examine, what was the extent, or rather how much, we can trace of those pretended miracles, for which the ancients were indebted to a practical knowledge of chemistry.

Passing to more elevated ideas, we may recal the example of Aclepiodotus,† who chemically reproduced the deleterious exhalations of a sacred grotto,‡ which proves that a science so prolific of apparent miracles was not unknown in the temples. Other facts tend to confirm this

lamp was to burn without interruption; the tube becomes obstructed, only because the oil, partly decomposed, attaches itself to the sides of the tube, when the night lamp is extinguished in the morning.

* There is no necessity for explaining the above described phenomenon by the great expansion of oil, for a wick of asbestos would, although incombustible, yet be fully adequate to raise the oil, and keep up the flame as long as the lamp was duly fed with the combustible fluid.—Ed.

† A general of Mithridatus.—Ed.

‡ *Dissertation de* M. Virey. *Journal de Pharmacie.* chap. VIII. page 153.

opinion. Marcos, the leader of one of those sects which, in the earlier ages of the Church, endeavoured to amalgamate with Christian doctrines particular dogmas and rites of initiation, filled three cups of transparent glass with colourless wine; during his prayer, the fluid in one of these cups became *blood-red*, in another *purple*, and in the third, of an *azure blue*.* At a later period, a well might be seen, in an Egyptian church, the waters of which, whenever they were placed in a lamp, became of a sanguine colour.†

In addition to these seeming miracles, probably borrowed from the mysteries of some ancient temple, let us add one of later times. At the Court of the Duke of Brunswick, Professor Beyruss promised that, during dinner, his coat should become red: and, to the amazement of the Prince and his other guests, it actually became of that colour.‡ M. Vogel, who relates the fact, does not reveal the secret made use of by Beyruss; but he observes that, by pouring limewater on the juice of the beet-root, a colourless liquid is obtained; and that a piece of cloth steeped in this liquid and quickly dried, becomes red in a few hours, simply by contact with the air; and further, that the effect is accelerated in an apartment where champagne and other wines are being plentifully poured out.‖ It

* S. Epiphan. *contrã Haeres.* lib. I. tome III. *contrà* Marcosios. *Haer.* 24. Sainte Croix has inadvertently ascribed this miracle to the Pepuzziens. *Recherches sur les Mystères du Paganisme*, tome II. pages 190—191.

† Macrizy, quoted by Et. Quatremère. *Mémoires sur l'Egypte*, tome I. page 449.

‡ *Journal de Pharmacie.* tome IV. (février 1818.) pages 57—58.

‖ In this case the lime, which in its pure or alkaline state,

has been proved, by recent experiments, that wool dyed by orchil* of a violet colour, or stained blue by the acidulated sulphate of indigo, in a bath of hydro-sulphuric acid, becomes colourless, yet resumes the blue or the violet colour on exposure to the free air.† Either explanation applies to the modern fact, and indicates the possibility of reviving ancient prodigies: it also discovers the manner in which, amidst flaming torches, and smoking incense, in the sanctuaries of Polytheism, the veil concealing the sacred things may have been seen to change from white to a deep blood-red hue, and which spectacle was considered as the presage of frightful disasters.

Blood boiling on the altars, or upon the marbles, or in the vases of the temple, was also indicative of peril and calamity. In Provence, in the sixteenth century, when a consecrated phial, filled with the blood of St. Magdalene, in a solid state, was placed near her pretended head, the blood became liquid, and suddenly boiled.‡ The same phenomenon was exhibited in the Cathedral of Avellino, with the blood of St. Lawrence,‖

unites with the acid of the juice of the beet-root, and decolourizes it, attracts carbonic acid from the air, which converts it into carbonate of lime, so that the acid of the beet being again set free, aided by any excess of the carbonic acid, acts upon the colouring matter, and restores the colour. The quantity of carbonic acid extricated by the breathing of many persons in a crowded room, and evolved by the champagne, would greatly facilitate this change. —Ed.

* A dye-stuff made from a species of lichen named Rocella *tinctoria*.—Ed.

† *Académie des Sciences*, séance du 2 Janvier, 1837.

‡ *Longueruana*, tome 1. page 162.

‖ *Travels of Swinburn*, vol. 1. page 81.—St. Lawrence Scopali was a native of Otranta. He was forty years of age before he

and also at Bisseglia, with that of St. Pantaleon,* and of two other martyrs.† In the present day, at an annual public ceremony at Naples, some of the blood of St. Januarius,‡ collected and dried centuries ago, becomes spontaneously liquified, and rises in a boiling state to the top

was admitted into holy orders. He became an ardent preacher, and amongst other works, published, "The Spiritual Combat," a production of considerable merit twenty years before his death, which happened in 1610, in his 80th year.—Ed.

* St. Pantaleon was physician to the Emperor Maximianus: he fell into idolatry, but was rescued from it, and afterwards ardently desired to expiate his crime by martyrdom, a wish which was granted to him, in the barbarous persecution of the Christians by Dioclesian.—Ed.

† *Travels of Swinburn*, vol. i. page 165.

‡ St. Januarius was a native of Naples; he became Bishop of Beneventa, and was ultimately beheaded at Puzzuoli. In the fifth century, his remains were removed to Naples, and his head and two phials of his blood are still preserved in a chapel, called the treasury, in the great church of that city. The usual time at which the pretended miracle recorded in the text is performed, is the 19th of September, the feast of St. Januarius. — Butler, in his *Lives of the Fathers, Martyrs*, &c. (vol. vii. p. 4.) endeavours to maintain the reality of this miracle, by mentioning the names of a number of royal, venerable, and noble persons who had witnessed it. The blood, or rather pretended blood, in its congealed state, is of a dark red colour; but when brought in sight of the head, though at a considerable distance, it melts, bubbles up, and on the least motion, flows on one side. Notwithstanding the great antiquity of this assumed miracle, and the argument of Butler in support of its authenticity, drawn from the improbability that so many holy, venerable, and learned persons who have vouched for its truth, can have been, and are hypocrites, impostors, and jugglers, we see no reason for altering our opinion that the blood is not real blood, and its liquifaction is most probably the effect of warming the chemical compound mentioned in the text, not so wonderful as he supposes.—Ed.

of the phial that incloses it. These phenomena may be produced by reddening sulphuric ether with orcanette (*Onosma*, Linn.) and mixing the tincture with spermaceti. This preparation, at ten degrees above the freezing point (*centigrade*), remains condensed, but melts and boils at twenty. To raise it to this temperature, it is only necessary to hold the phial which contains it in the hand for some time. If a little simple jugglery be combined with this philosophical experiment, the apparent miracle is complete. At Naples, the pretended relics of St. John the Baptist annually sheds blood ;* and blood trickles from the withered bones of St. Thomas Aquinas, thus proving the authenticity of the relics, held in veneration by the monks of Fossa Nuova ;† and the bones of St. Nicholas of Tolentius,‡ exposed on the altar for the adoration of the faithful, soon fills with blood a large silver basin placed below it, by the foresight of the priests.‖

From this solution, it seems to follow, that the Thaumaturgists were acquainted with alcoholic liquors, and with the art of distilling necessary to obtain them; and

* Pilati de Tassulo: *Voyages en différens pays de l'Europe*, tome I. pages 350—351.

† Prèz de Piperno.—Pilati de Tassulo. *Voyages*, &c. tome I. pages 345—350.

‡ St. Nicholas was a native of St. Angelo, near Fermo, in the Marca of Amona. He was born, A.D. 1245, of opulent parents. Whilst a young man, he entered himself as a noviciate in the order of Tolentino. After a life of austerity, he died in 1306, and was canonized by Eugenius IV. in 1446.—Ed.

‖ Le P. Labat. *Voyages d'Espagne et d'Italie*, tome IV. pages 100—101.

that thus it was easy for them to produce the spectacle of burning liquids, with which they astonished the multitude. This is not a rashly hazarded supposition. In an ancient sacred book of the Hindoos,* in which are collected doctrines of the remotest ages, under the name of *Kea-soum*, mention is made of the distillation of spirits. This secret, indeed, was not confined to the temples, for the art of distillation had been practised in Hindostan† from a very early age; at Nepaul;‡ at Boutan;‖ and also at Thibet, where arrack is extracted from *chong*, or rice-wine,§ by a process which the natives have certainly not learned from Europeans.¶

It may be asked, was it from Europe that the art of distilling was received by the Nagals,** a free people of the mountains of Assam. The same question may be asked respecting the inhabitants of the provinces situated

* *Oupnek'hat.* Brahmen 24; *Journal Asiatique,* tome II. pages 270.

† *Recherches Asiatiques.* tome I. pages 335—345.

‡ *Bibl. Univ. Littérat.* tome IV. page 272.

‖ Turner. *Embassy to Thibet,* etc. vol. I. page 50.

§ Rice wine is still made in China; and the lees when distilled, yield a spirit not unlike brandy, which is named *show-choo, san-tchoo,* and *sumtchoo,* which literally means, burnt, or hot wine. How long prior to the Christian era the Chinese exercised the art of making wine, and distilling it into spirits, it is impossible to say:—but Du Halde[a] informs us, that 2207 years before Christ, in the reign of the Emperor *Yu* or *Ta-yu,* Rice wine was invented, and its use produced such evil consequences, that it was expressly forbidden to be made, or drank under the severest penalties.—Ed.

¶ Cadet Gassicourt. Article *Distillation,* in the *Dictionnaire des Sciences Médicales.*

** *Nouvelles Annales des Voyages,* tome XXXII. page 234.

[a] Du Halde's Annals of the Monarche, &c. vol. I. page 145.

between Ava, Siam, and Pegu, where *toddy* is made from the juice of the Nipa palm tree; or in reference to the islanders of Sumatra, who in 1603, were seen by a traveller* making use of earthern tiles in extracting a liquor stronger than our brandy, from a mixture of rice, and the juice of the sugar-cane. We may safely reply in the negative, and it is probable, that five centuries before our era, this art had passed into Asia Minor, and into Greece. Traces of this communication exists, if we admit the ingenious inferences, by which Schulz† endeavours to establish, that the liqueur of Scythia the *Scythicus latex*, of Democritus, was nothing else than alcohol, the Polish name of which, gorzalka,‡ recalls the name chrusoloucos (χρυσολουκος) given it by the ancients. Not that we ought to regard the liqueur of Scythia as a preparation of spirit of wine, which only became known in Poland in the sixteenth century: but some of the kinds of spirits of which we have spoken might reach Scythia, as an article of its commerce with Thibet, or Hindostan. The Scythians indeed, may have obtained it themselves from the productions of their own territories. Siberia has been long shut out from the age of inventions. There the stems of the birch are annually collected,‖ not only in order to obtain the

* François Martin. *Description du premier Voyage aux Indes Orientales par les Français* (Paris 1609), p. 56—71, and 166.

† Cadet Gassicourt. Art. *Distillation. Dictionnaire des Sciences Médicales.*

‡ In Sclavonia, *gorilka* or *horilka*. . . In Slavonian and in Polish *gore* signifies a thing that burns; the termination *'lka* indicates a diminutive.

‖ *Heracleum sphondylium*; fausse brancursine; patte d'oie, Cow parsley. *Cours d'Agriculture de Rosier* (1809), art. *Berce.*

sugary efflorescence with which, in drying, they become covered, but more particularly to extract from them a large quantity of alcohol, by causing them to ferment in water.

Aristotle assures us that art had been successful in producing oil from common salt.* It can scarcely be doubted that he alludes to the production of hydrochloric acid, which may have received the name of oil, in the same way that sulphuric acid has long been known under the name of *oil of vitriol*.† Finally, the art of distillation, as employed for the extraction of mercury from cinnabar, has been described by Pliny and Dioscorides,‡ with no indication of its being a recent discovery: now this art, having once become known, was it unlikely that the doctors of the temples should endeavour to apply it to fermented liquors?

When we recollect that, placed in contact with flame, the wine of Falerno became ignited;‖ that the wines of the Greeks and the Romans, even when diluted with two parts of water, were intoxicating in their effects; that these wines were preserved and improved by being kept in the highest story of their houses, in cellars protected from the heat of the sun, it is natural to suppose that a portion of pure alcohol, more or less strong, was mixed with them; and thus, that the

* Aristot. *Problem* XXIII. 13.

† Hydrochloric acid, which is procured from salt, is still popularly called *spirit of sea-salt*.—ED.

‡ Dioscorid. lib. v. cap. CX. Plin. *Hist. Nat.* lib. XXXIII. cap. VIII.

‖ Plin. *Hist. Nat.* lib. XIV. cap. VI.—All wines contain either free or combined alcohol.—ED.

art having issued from the temples, was ministering to the uses of domestic life. But this supposition would ill accord with all that we know of the ancient art of making wine. Faithful to the path we have marked out, let us limit ourselves to inquire if, when more abstruse secrets passed over from the temples of India to enrich those of Asia Minor, of Etruria, and of Greece, the art of obtaining spirituous liquors by distillation, universal in the East, would not follow in the same route, and fall also into the hands of the priests of these countries? The general argument applies here in all its force; this art must certainly have been known in temples where apparent miracles, referable to its agency alone, were performed.*

* In the opinion of the Editor, the reasoning of our author as to the introduction of the art of distillation into Asia Minor, Etruria, and Greece, from Hindostan, is by no means necessary in order to account for the knowledge of ardent spirits by the priesthood, and their employment in some of the mysteries of the temples. It is a well known fact, that there is no variety of the human race, of however low a grade, that has not some means of inducing intoxication, by means of beverages. In the Friendly Islands, when Captain Cook first visited them, the natives made an intoxicating beverage, by chewing the root of the Kava plant, and mixing the juice thus extracted with water. The Tartars make Araka, a strong liquor, from the fermented milk of the cow and the horse: in Egypt Araki is the produce of the date, and in India that of the flowers of the Madhuca tree (*Bassia butyracea*). The Siamese become intoxicated with lau, made from rice: the Chinese with show-choo, a species of brandy, distilled from the lees of mandarin, a rice wine: the Mexican on a spirit made from pulyne, the fermented juice of the *Agave Americana;* and the Kamschatkains on Slutkaia trava, a spirit made from a sweet grass,

and another from the juice of the whortle berry, mixed with that of the *Amanita muscaria*. Now all inebriating liquors, however produced, and whether obtained from vegetable or from animal substances, derive their inebriating properties from alcohol; and, if that opinion be admitted, it is easy to conceive that as, when these liquors were heated or boiled, they must consequently have become weaker, and lost much of their intoxicating properties, those who observed this effect would be led to suppose that something was driven off with the vapour during the boiling, and without this the liquors ceased to intoxicate. The natural result of such an observation would be an attempt to regain this important ingredient, by condensing the vapour; and the possibility of doing this would be observed almost as early as the discovery of its being carried off by the vapour: hence the first step to the performance of the process of distillation. It is, therefore, probable that the discovery of ardent spirits is coeval with civilization; and that the process of procuring them was known in many countries, without being communicated from other nations; and, consequently, must have been familiar in the temples, the repositories of all the science and learning of antiquity.—Ed.

## CHAPTER XV.

Secrets employed in working apparent miracles, in initiations, and in religious rites—Those giving security against the effects of fire, and used in the fiery ordeal, known in Asia and in Italy, and practised in the eastern Roman Empire as well as in Europe, in more modern times—Process by which wood may be rendered incombustible.

THE knowledge of those energetic substances which, acting externally on organized bodies, enable man to come in contact with flame, boiling water, red-hot iron, and fused metals, had likewise its origin, or at least was practised, in the temples. It was long confined to them; and it has never been fully revealed to the multitude.

The mere approach of fire to any combustible body is so frightful, and its ravages are so devastating, that an apparent miracle, displaying the power of resistance to its influence, could not fail to further the designs of the workers of wonders, as the following facts demonstrate:

1st. The candidate for initiation probably experienced this trial on his admission. It would be absurd to believe that in this mystery all the proofs to which the aspirant were subjected, were illusions and juggling tricks; and especially the ordeal by fire.

The Tartars, on the approach to their hordes of a stranger, or an Ambassador, or a King, or even of an ordinary traveller, long observed the custom of causing him to pass between two lighted piles of faggots, in order to his purification from any malignant influence which he might bear about him.* It merely required the space between the faggots to be widened or narrowed, and this purification became either a trial, or a torture, or a mortal punishment. In the initiations, this ceremony, undoubtedly borrowed from the Tartars, might have been so managed as to enable the priests easily to punish imprudent individuals, who put themselves in their power, after having offended them; or who had attempted to shake the sincerity of the faith of others, or to thwart their intentions, by making them disappear among the flames.

In the rites of the most ancient initiations, fire was an important agent in the frightful trials of this nature, which were endured by Zoroaster before commencing his prophetic mission.†

Among the preparations of initiation, were one or many baths, regulated by the priests. It is not difficult to conceive that, by immersion in these baths, a transient power of resisting fire was communicated to the aspirant.‡ In submitting afterwards to the fiery ordeal, the

* Abel Remusat. *Mémoires sur les Relations Politiques des Rois de France avec les Empereurs Mongols.—Journal Asiatique,* tome 1. p. 135.

† *Vie de Zoroastre, Zenda-vesta,* tome 1, 2nd part, p. 24.

‡ It is not easy to conjecture the nature of these baths; but the solution, whatever was the substance dissolved in the water, must have left upon the surface some incombustible matter; but it was not necessary that it should have been a non-conductor of heat, as some

faith of the aspirant must have been great enough to persuade him that he would be preserved from all injury by his confidence in the Divinity; or, were this conviction not felt, he must have relied on his intrepidity.

contend. Albertus Magnus informs us that it consisted of powdered lime, formed into a paste with the juice of the radish, the white of egg, the juice of the marsh-mallow, and the seeds of the flea-bane. He adds that, if one coat of this compound is applied to the body, and allowed to dry, and another coat laid on it, the body will be preserved from the effects of fire.[a] Many experiments have proved that the living body has an extraordinary power of resisting heat, provided it does not come into immediate contact with the burning substance. The experiments instituted by Duntze and Tillet on the continent, and by Dr. Fordyce, Sir Joseph Banks, and Mr. Blagden, in this country, proved that a temperature between 198° and 260° Fahr. may be borne with impunity, if the feet of the person be covered with flannel, which is a non-conductor. To prove the influence of this temperature on inanimate bodies, they placed eggs and a beef-steak upon a tin frame in a heated room to nearly 300°, near the thermometer: in the space of twenty minutes the eggs were roasted quite hard, and in forty-seven minutes the steak was overdone and dry.[b] The female of a baker at Rochefoucault, clothed in flannel, was in the daily habit of entering her master's oven, and remaining long enough to remove all the loaves; and Dr. Brewster informs us that the late Sir Francis Chantry's workmen entered the oven employed for drying the moulds, an iron apartment fourteen feet long, twelve feet high, and twelve feet broad, the temperature of which, with closed doors, was 350°, and the iron floor red hot. They were guarded against the heat of the floor by wooden clogs, which were, of course, charred on the surface. "On one occasion," he adds, "Mr.

[a] *De mirabilibus Mundi.* Amatelod. 1762, 12mo. p. 100. His words are, "et post hoc poteris anduetar sustinere ignem sine nocumento."

[b] *Phil. Transactions,* 1773.

Issuing triumphant from this trial, his enthusiasm or his courage might fairly be calculated on; and it might be presumed that, on a necessary occasion, he would brave similar dangers, either in the possession of the secrets revealed to him, when deemed worthy to know them; or by the religious trust, without which even these secrets were reputed to lose their efficacy.

2nd. It was not, however, only at the period of initiations that men were inspired with sacred awe, by witnessing the marvellous invulnerability with which these assumed favourites of heaven were endowed: its success being so well ascertained, it was frequently displayed in public.

Modern jugglers have appeared to eat burning fire, without being incommoded by it, yet we pay little attention to the circumstance. Eunus, the Syrian,* who

Chantry, accompanied by five or six of his friends, entered the furnace, and, after remaining two minutes, they brought out a thermometer which stood at 320°. Some of the party experienced sharp pains in the tips of their ears and in the septum of the nose, while others felt a pain in their eyes.[a] These experiments prove the extraordinary heat which the living body can bear with impunity, and favour the possibility of persons passing uninjured through flame, provided the body can be guarded from being scorched by a non-conducting covering of an incombustible nature.—Ed.

* Eunus was a Syrian slave, who pretended to have immediate communication with the Gods; and he obtained credit for his visions and pretended prophecies, by playing off the trick mentioned in the text. Florus (III. 19) says, that it was performed by concealing in his month a walnut shell, bored and filled with ignited sulphur, which when he spoke threw out a flame. His

[a] *Letters on Natural Magic*, 12mo. 1832, p. 312.

revived the revolt of the slaves in Sicily,* and Barochebus,† who headed the last revolt of the Jews against Adrian,‡ both appeared to vomit flames while speaking; and though this trick had enriched the public spectacles three centuries before the Christian era,‖ still it seemed miraculous; and supported, in the eyes of the multitude, the reality of the inspiration which the one pretended

words are, "inore abolita nuce quam sulfure et igne stipaverit, leniter inspirans flammam inter verba fundebat." Not a very satisfactory explanation—Ed.

* *Florus*. lib. III. cap. XIX. To explain how Eunus worked this miracle, the historian indicates a process almost impracticable. We thence conclude that Eunus, like many others, resorted to false assertions, in order the better to conceal his secret.

† Barochebus, or Shimeon Bar Coehba, signifying in Hebrew the *Son of the Star*, was a Jew, who pretended that he was the Messiah, and applied to himself the prophecy of Balaam, "There shall come a star out of Jacob," &c. His approach, as the Messiah, was preached by the Rabbi Aquiba, who was active in stirring the Jews to revolt, and was cast into prison by Lucius Quietus, the Roman Governor of Palestine, under Trajan. Soon after the return of Adrian, the rebellion of the Jews commenced, headed by Bar Coehba, who gained much confidence for his pretended miraculous power and his intrepidity. He took Jerusalem A.D. 132; and issued coins, bearing his head on one side, and on the other, the legend, "Freedom to Jerusalem." He was, however, defeated, and slain by Julius Severus, A.D. 135, at the capture of Bethar, to which he retired after being driven from Jerusalem, and in which he reigned as a King, for three years. His pretensions being refuted, both by his life and death, he received the nick-name of Bar Coziba, "the son of a lie."—Ed.

‡ S. Hiéronym. *Apologetic*. II. *adv. Rufin*.

‖ In Macedonia there figured, says Athenæus, at the espousals of Caranus, naked women who vomited flames. (*Athen. Deipn.* lib. IV. cap. I.)

to have received from the Goddess of Syria, and the other from the Omnipotent God of Israel.

The priestesses of Diana Parasya, in Cappadocia, commanded no less veneration, by walking with naked feet on burning coals.* The Hirpi,† members of a small number of families established on the territories of the Faliscii,‡ renewed the same miracle annually on Mount Soractes, in the temple of Apollo: their hereditary incombustibility was of value to them, as it secured their exemption from military service, and other public business. Varro‖ ascribes it to the efficacy of a liniment, with which they were careful to anoint the soles of their feet.§

* *Strabo.* lib. XII.

† They were called Hirpi, which signifies wolves in the Samnite dialect, from a tradition, that they followed the tracts of these animals in migrating to the south of Sumnium Proper, where they settled. They performed the feat attributed to them at the annual festival, at the temple of Apollo, on Mount Soracte, in Etruria. —Ed.

‡ Plin. *Hist. Nat.* lib. VII. cap. II. *Solin.* cap. VIII.

‖ Ut solent Hirpini qui ambulaturi per ignem, medicamento plantas tingunt —Varro. *apud Servium in Virgil. Æneid.* lib. XI. verses 787—788.

§ This is attributed by Beckmann also (History of Inventions, transl. vol. III. page 277,) to the skin of the soles of the feet being made callous and horny, so as to defend the nerves from the impression which the hot coals would otherwise make upon them. He relates the following anecdote in support of his assertion: "In the month of September, 1765, when I visited the copper works at Awestad, one of the workmen for a little drink money, took some of the melted copper in his hand, and after showing it to us, threw it against the wall. He then squeezed the fingers of his horny hand, close to each other; put it a few

Thus, in order to penetrate into a sanctuary, the hero of an oriental tale* crossed some water, which was boiling without the application of fire (evidently a gaseous thermal spring), and traversed plates of red-hot steel. A pomatum, with which he had anointed himself, enabled him to brave both these dangers with impunity.†

3rd. A more popular use, and one still better adapted to augment the sacerdotal power, was made of this secret.

Man, unskilled in the discernment of error, and incapable of confuting falsehood, has in every country demanded from heaven some miracle, which should expose the criminal or clear the innocent; thus giving up the honour, or the life of his fellow-creatures to the decision of the priest; to the success of a philosophical experiment; to blind chance; or to shameful fraud. Of all ordeals, that of fire is the most ancient and universal; it has made the tour of the globe. In Hindostan, its antiquity reverts to the reign of the Gods. *Sita*, the wife of *Rama*, the sixth incarnation of Vishnu, sub-

minutes under his arm-pit, to make it sweat, as he said; and taking it out again, drew it over a ladle filled with melted copper, some of which he skimmed, and moved his hand backwards and forwards very quickly, by way of ostentation." Beckmann adds, "I remarked a smell like that of singed horn, or leather, though his hand was not burnt."—Ed.

* *Les Mille et un Jours*. 491e. Jour.

† This is much better explained by the callous state of the soles of the feet as already mentioned; and we are told by Beckmann (*loco citato*) that this may be effected by frequently moistening the parts with sulphuric acid, or by constantly, for a long time, rubbing the feet with oil, which produces in the skin the same horny state as it causes in leather.—Ed.

mitted to it, and stood on red-hot iron, to clear herself from the injurious suspicions of her husband. "The foot of Sita," say the Hindoo historians, "being clothed in innocence, the devouring heat was to her as a bed of roses."*

This trial is still practised in several ways by the Hindoos. A creditable witness saw two accused persons subjected to it; one carried in his hand a red-hot ball of iron without receiving any injury, the other submitted to the trial of boiling oil.† But we must observe, that the latter was accused by a Brahman, and that all the Hindoo ordeals are under the influence of the priests.

For the rest, the mystery of their success is not very difficult to penetrate. The same writer was acquainted with a preparation, known also to the Hindoo Pandits, by which the hands, when anointed with it, might resist the effects of heat, and handle red-hot iron.‡ Thus it is easy for the Pandits to do a good turn to those criminals, whom they favour, by attaching various substances, particularly leaves of trees to their hands, before the trial.§

A Mahometan traveller, who visited Hindostan in the nineteenth century, saw the fiery ordeal conducted in the same manner. The trial by boiling water, he also found in use there, and a man, who submitted to it in his presence, withdrew his hand, quite uninjured.

* Forster. *Travels from Bengal to Petersburg*, vol. 1. pages 267—268.

† *Recherches Asiatiques*, tome 1. pages 478—483.

‡ *Recherches Asiatiques*, page 482.

§ *Ibid.* pages 477—479.

Zoroaster eager to confute his calumniators, allowed melted lead to be poured over his body, and he received no injury.* Does it follow that he employed a preservative, analogous to that made use of by the Hindoo Pandits? On this point, his biographer is silent; but we learn, that previous to undergoing this frightful trial, his adversaries rubbed his body with various drugs;† was this not evidently intended to destroy the effect of the salutary liniments, which had been previously applied, and the knowledge and application of which they supposed him to be forearmed, although they failed in effecting their intention?

The ordeal by fire, and the secret of enduring it without injury, were very early known in Greece.

In Sophocles, the Thebans‡ suspected of exhuming the body of Polynicius, exclaim: "We are prepared to prove our innocence, by handling heated irons, or walking on the flames. This ordeal and the secret of enduring it, survived the decline of Polytheism.‖

* *Anciennes relations des Indes et de la Chine,* traduites par Renaudot, pages 37—38.

† *Vie de Zoroastre. Zenda-vesta.* tome I. partie II. pages 32—33.

‡ Sophocl. *Antigon.* vers. 274.

‖ Simplicus was elevated to the Papal throne, A.D. 497. He was previously married, but he separated himself from his wife, although she lived in the house with him. This circumstance having given birth to some scandalous reports, the lady resolved to prove her innocence by the ordeal of fire; and, for this purpose, chose a solemn day; and in the presence of the assembled people, carried fire in her hands, and threw it upon her clothes without their being in the smallest degree damaged. She then placed some of the fire on the clothes of her husband with the same effect, and addressed him in the following words: "Receive this

Pachymerus* asserts, that he saw several accused persons acquit themselves, by handling red hot iron, without receiving injury. At Dydmotheque,† a wife was or-

fire, which will not burn you, in order to convince our enemies that our hearts are as inaccessible to the fire of nuptial intercourse, as our clothes are to the action of these burning coals." This apparent miracle astonished all who witnessed it, and at once silenced the calumny. After what has been said upon the power of walking on burning bodies, and the fact that the formation of cloth with asbestos, and the property of rendering common cloth incombustible by soaking it in a concentrated solution of alum, was known long before the above period, we can have no difficulty in explaining the assumed miracle.

It is melancholy to know that this custom had been transplanted from the Pagan temples into the Christian churches. At the same time, it is gratifying to find, that in the year 840, the learned Agoband, Archbishop of Lyons, pronounced ordeals to be tempting God, and contrary to his law, as well as to the precepts of charity. They had been previously condemned by the council of Worms in 829; and they were also prescribed to Gregory the Great. In England, they were suppressed by act of parliament in the third year of the reign of Henry III.[a] There were three ordeals, or as they were also termed, *vulgar purgations*; namely, one by fire, in which the accused person either placed his hand on red hot iron, or walked barefoot over it; another by boiling water into which the supposed culprit plunged his bared arm, to take out a stone at the bottom of the vessel; and a third by cold water, in which, if the person was drowned, he was pronounced guilty. The last was chiefly used for the trial of witches, and was resorted to long after the law for the suppression of ordeals was passed. —Ed.

* *Pachym.* lib. I. cap. XII.

† Towards the year 1340, of our era.—*Cantacuzen.* lib. III. cap. 27.

[a] Johnson's *English Canons.* A.D. 1065.

dered, by her husband, to submit to this trial, to clear herself from injurious suspicions. These were well-founded, as the woman confessed to the Bishop. By his advice she consented to lift the red hot iron; and having carried it three times round a chair, at her husband's desire, she placed it upon the chair, which immediately took fire. The husband no longer doubted the fidelity of his wife. Cantacuzene relates the fact as a miracle: we quote it as a proof of the wise instructions and indulgent connivance of the Bishop.

In 1065, some Angevin monks, in a lawsuit, produced as a witness, an old man, who, in the midst of the Great Church of Angers, was subjected to the ordeal of boiling water. The monks declared the water in the cauldron to be heated to an extraordinary degree,* the

* Water, unless it contain common salt, or some other saline substance, cannot be heated above 212° Fahr.; so that this very declaration displayed a disposition to mislead the ignorant spectators by enhancing the severity of the ordeal. Fluids that boil at a low temperature may have been substituted for water; and, as Sir David Brewster properly remarks, "even when the fluid requires a high temperature to boil, it may have other properties, which enable us to plunge our hands into it with impunity." He details a fact, mentioned to him by Mr. Davenport, who saw one of the workmen in the King's Dock at Chatham immerse his arm in boiling tar; and Mr. Davenport immersed his forefinger in it, and moved it about for some time "before the heat became inconvenient." Now tar does not boil at a lower temperature than 220°, or eight degrees above that of boiling water: and the phenomenon can only be explained by the fact that tar is a worse conductor of heat than water, and altogether a bad conductor. Mr. Davenport ascribes this non-conducting power of the boiling tar to the abundant volatile matter which is evolved "carrying off

witness confirmed the truth of his testimony, by coming out of it uninjured. At the commencement of the same century, the Deacon Poppon, desirous to win Sweyn II., King of Denmark, and the Danes back to Christianity, thrust his hand and arm, bared to the elbow, into a gauntlet heated to a white heat; carried it through the assembled Danes; and having laid it at the feet of the Prince, appeared quite unscathed.*

Harold, pretending to be the son of Magnus, King of Norway,† and as such claiming the succession, he was required to prove his birth by the fiery ordeal. He submitted to it, and walked over red hot iron with impunity.

Two centuries later, Albertus Magnus‡ described two processes, by which a transient incombustibility might be imparted to the body of a man. A writer of the sixteenth century‖ pretends that it is sufficient to wash the hands in wine lees, and subsequently to steep them in fresh water, in order to allow a stream of molten lead, to pass over them without injury. His assertion, that he proved it experimentally upon himself, may be doubted.

The charlatans, who plunge their hands into molten

rapidly the caloric in a latent state, and intervening between the tar and the skin, so as to prevent the more rapid communication of heat."[a]—Ed.

* Saxo-Grammat. *Hist. Dan.* lib. x.

† Died in 1047.—Saxo-Grammat. *Hist. Dan.* lib. xiii.

‡ Albert. *De mirabilibus mundi.*

‖ E. Taboureau. *Des faux sorciers.*

[a] Brewster's *Letters on Natural Magic*, p. 302.

lead, may deceive our eyes, by substituting for lead a composition, of the same colour, which becomes liquid, at a very moderate heat; such is the fusible metal of Darcet.* Were it necessary, I believe that Science could also readily furnish an easily fusible metal, outwardly resembling copper or bronze. From Science also may be derived the secret of giving the appearance of ebullition, to a moderately heated fluid. But judicial or religious ordeals have not always been in the hands of men disposed to favour deceit. In that of the red hot iron, it is not easy to conceive fraud, and the secret of nullifying its effects has ever been as universal as its use. The knowledge of it has also been widely extended. One of the Eastern Tales, we have so often quoted, mentions a man, of the inferior classes, who plunged his hand into the fire, and handled red hot iron, without

* The fusible metal is a compound of mercury, tin, and bismuth, and resembles lead in its colour. It melts at so low a temperature, that a tea-spoon made of it dissolves in a cup of hot tea. It was most probably this metal, in a fused state, which Richardson, an English juggler in the end of the seventh century, poured upon his tongue instead of melted lead, which he professed to employ. We are not informed what he substituted for melted glass and burning coals, which he appeared to chew. A conjurer, who exhibited himself ten or twelve years ago in the metropolis, excited much astonishment by swallowing phosphorus. I am of opinion that this was effected by instantly closing the mouth, so as to prevent the ignition of the phosphorus; and in a few minutes afterwards on leaving the room, which he always did after the feat, he ejected it from the stomach, by causing vomiting. Phosphorus does not inflame unless it be exposed to the action of the air.—Ed.

being burnt.* We discover the same secret in two different parts of Africa. In the country of the Caffres, and in Loango, some Portuguese travellers saw the accused, called on to justify themselves, by taking hold of red hot iron. It is a law among the Ioloffs,† that, when a man denies a crime imputed to him, a red hot iron shall be applied to his tongue; and according as the fire affects him, he is declared culpable or innocent; but all the accused are not condemned.

How is it then, that the secret of resisting this ordeal is still so imperfectly known to European philosophers, notwithstanding our intercourse with Hindostan, where it certainly exists. In our own days, men, claiming to be considered incombustible, have submitted their experiments to the inspection of the most enlightened men in France with as much confidence as a mere popular exhibition?

Uncertainty on this point must soon end. Whilst this invulnerability has been, by several learned men, ascribed to long habit, and a peculiar organization, Doctor Semintini proposes, as the solution of the problem, the probable interposition of some foreign substance between the skin and the glowing body: he has ascertained, that a saturated solution of alum preserves any part strongly impregnated with it, from the action of fire; particularly if the skin is rubbed with soap, after the application of the alum.‡ He states that, by means

* *Contes inédits des Mille et une Nuits.* (Paris 1828.) tome III. page 436—437.

† G. Mollien. *Voyage dans l'intérieur de l'Afrique, du Sénégal et de la Gambie,* tome I. p. 105.

‡ This opinion is highly probable, as we are informed by Beck-

of this preparation, he repeated, on his own person, the experiments of the incombustible men.*

This process, the efficiency of which has been tested and confirmed, by recent experiments, was probably the same as made use of by the ancients, since they also employed inert materials to enable them to encounter the flames.

Independently of the art of spinning and weaving the asbestos, which was carried so far as to surprise the ignorant by apparent miracles wrought with its agency: the ancients were acquainted with the fact, that wood, saturated with alum, was capable of withstanding the flames for a length of time. Such was the wooden tower raised by Archelaus† in the Pireus, which Sylla, in vain attempted to burn: and which, if we can credit the historian Quadrigarius, was rendered incombustible by Archelaus having taken care to impreg-

mann that, in Catholic countries, where the ordeal by fire was taken as the exculpatory evidence of crime, the accused person was placed three days and three nights under the care of the priests, both before and after the trial, in order, it was alleged, to prevent him from preparing his hands by art. His hands were covered up, and the coverings sealed during the three days which preceded and followed the ordeal. "It is highly probable," says Beckmann, "that during the three first days the preventive was applied to those persons whom they (the priests) wished to appear innocent: and that the three days after the trial were requisite to let the hands resume their natural appearance." When the ordeal was abolished, and this art became valueless, the secret was lost.—Ed. —Beckmann. *Hist. of Inventions, Trans.* vol. III. p. 281.

* *Essai sur la Physiologie Humaine,* par G. Grimaud et V. C. Durocher, Paris, 1826, p. 76.

† A King of Cappadocia who was conquered by Scylla, as a punishment for assisting Mithridates.—Ed.

nate the wood of which it was constructed with alum.* The wooden tower of Larch wood, which Cæsar found it impossible to set on fire,† must have been preserved by a similar precaution. This was also, without doubt, the secret of the wood made use of in Turkistan, which preserved the houses built of it from fire.‡ We are acquainted with no species of incombustible wood, consequently the opinion prevailing in Asia, Greece, and Gaul respecting the existence of this marvellous quality in the Larch,‖ or any other tree, only served, under the veil of a pretended miracle, to conceal a real, and valuable secret, the exclusive possession of which was thus secured.

* A. Claud. *Quadrigar. Annal.* lib. XIX. apud. A. Gell. lib. XV. cap. I.

† *Vitruv. de architect.* lib. II. cap. IX.

‡ *Histoire de Gengiskan,* p. 144.

‖ Abies *Larix,* a native of Europe, Russia, and Siberia.—ED.

## CHAPTER XVI.

Secrets to work upon the senses of animals—Ancient and modern examples—Of the power of harmony—The power of good treatment—Crocodiles and snakes tamed—Reptiles whose venom can either be destroyed or extracted—Ancient Psylli—The faculty which they possessed of braving the bites of serpents put beyond doubt, by the frequent recent, and repeated experiments in Egypt—This faculty proceeds from odoriferous emanations, which affect the senses of the reptiles, and escape those of man.

ALMOST as terrible in their effects as fire, and often more difficult to avoid, are venomous reptiles, and ferocious animals: it may be asked do they lose their power to injure, at the command of a man, aided by a supernatural science? Many of the recitals of the ancients upon this subject have aroused the incredulity of the moderns. The history of Orpheus passes with many for a pleasing allegory; and it was believed that those men, those Manades who played with tigers and panthers, and who, in the representations of the initiations, handled serpents with impunity, were merely Jugglers.

It is not, however, denied that there existed occult methods of acting on animals who are free from our empire by their natural independance. The odour of

*Cat-mint*,* and that of *marum*,† exercises so powerful an influence on the sense of smelling of cats, particularly in warm climates that it appears marvellous to any one who witnesses the effects of it for the first time. It is easy to take advantage of these and similar plants for enticing the animals whom they affect. If we may believe ancient observers, the elephant loves sweet odours, such as those of flowers and perfumes,‡ and she-goats of the Caucasus are so delighted with the odour of cinnamon, that they will eagerly follow the hand which presents it to them.‖ In London, at this day, some men possess the art of enticing rats from their holes, and constraining them, in broad day, to enter into a rat-trap; the charm consists in some of the straw placed in the trap with the oil of cumin,§ and of anis.¶ In

* Nepeta *cataria*, a perennial plant, common on gravelly and chalky banks, and on road sides, flowering in July. It is a soft, hoary plant, with the upper part of the flower white, but the lower lip spotted with crimson. The whole plant exhales a strong, pungent odour, peculiarly grateful to cats.—Ed.

† Teucrium *marum*, Cat-thyme, a native of the shores of the Mediterranean. Cats are so fond of the odour of this *marum*, that they tear the plant when they meet with it. Our author might have added Valerian to his list of plants.—Ed.

‡ Aelian. *de Nat. Anim.* lib. I. cap. XXXVIII. lib. XIII. cap. VIII.

‖ Philostrat. *vit. Apollon.* lib. III. cap. I.

§ Cuminum *Cyminum*, a native of Upper Egypt, and cultivated in Sicily and Malta. The fruit resembles carraway, and has a powerful aromatic odour, depending on its volatile oil, the odour of which is not agreeable to men, although extremely delightful to cats.—Ed.

¶ Pimpinella *Anisum*, a native of Scio, Egypt, and Asia, The

the last century, a man might have been seen walking covered with a swarm of bees, which spread themselves over his hands and face, and seemed to have forgotten the use of their wings and their stings. It is probable that his secret resembled that which we have pointed out.

Exposure to ferocious beasts was an ordeal used in the Roman Empire; consequently, secrets proper for lulling the ferocity of ravenous animals were, most probably, well known. Maricus, who under Vitellius, endeavoured to restore the Gauls to freedom, passed himself off for a God. Being captured in battle, he was delivered up to wild beasts; but he received no injury from them; an event which appeared to confirm his pretensions, until Vitellius caused him to be devoured.* The Egyptian Serapion† predicted a similar death to Caracalla; a famished lion was let loose upon the prophet: he presented his hand to the animal, who retired without injuring him. Another ordeal, however, proved fatal to him.‡ When wild beasts were let loose upon Thecles, some of the women having

volatile oil has a powerful, not unpleasant aromatic odour. It is poisonous to pigeons.—Ed.

* Tacit. *Histor.* lib. II. cap. LXI.

† Serapion was a physician of Alexandria, in the third century. His prediction was drawn forth by the vices and cruelties of Caracalla, who, in consequence of a joke, which likened him to Œdipus and his wife to Jocasta, slaughtered many thousands at Alexandria. He was assassinated at Edessa, by Macrinus, A.D. 217, in the forty-third year of his age. The author, therefore, labours under a mistake in attributing his death to an ordeal.—Ed.

‡ Xiphilin. *in Anton. Caracal.*

thrown upon him spikenard;* others cassia;† a third set precious aromatics; and a fourth perfumed oil; the beasts were as if overcome with sleep, and Thecles escaped untouched. This recital, borrowed from a work which dates from the commencement of Christianity, is probably founded on a real incident; and affords a proof that the use of penetrating odours has sometimes been able to save the wretches condemned to satiate the hunger of carnivorous animals. From a fact related with some details, by Athenæus, it would appear that, in Egypt, the juice of the citron; taken internally, was used to work this assumed miracle. The experiment that he relates is the more striking; as on repeating it, one of the wretches, who had escaped death, was permitted to use this precaution, a favour which was

* Spikenard, Nardastachys *Iatamansi* of De Candolle, the Nard of the Bible, and the Nardo-stachys of the ancients. It is known in India by the name *bal-chur*. It is a mountain plant, belonging to the natural order, Valerianaceæ, and has a close affinity to the Celtic Valerian, which is found on the mountains of Austria; whence it is exported to Egypt, on account of its powerful, yet agreeable odour, for perfuming baths. In India, the Iatamansi is used for scenting oils and perfumes.—Ed.

† The name Cassia is here probably intended for Cinnamon, as the oil of the Laurus *Cassia* has not an agreeable odour. The term *Kaschu-manis*, sweet wood, derived from two Malayan words is frequently used for Cinnamon in India. The wood of the tree, without being barked, was anciently carried into Greece by the Phœnicians, who, at the same time, probably also imported the oil: and it is more likely that, in the ceremony referred to in the text, neither the Spikenard nor the Cinnamon was used, but merely the volatile oil of these plants.—Ed.

denied to another. The first was spared by the ferocious beasts; the second perished, being immediately torn to pieces.* It may be rationally doubted whether the Citron has ever been thus efficacious; but the rind might serve to inclose more powerful ingredients.† According to Aelian a coating of elephant's grease is an infallible preservative,‡ the odour, as penetrating as it is fœtid, peculiar to the carcase of this great quadruped, renders this less incredible. A similar secret will doubtless explain the security of the jugglers who, says Tertullian, are seen, in public places, exposed to the fury of ferocious beasts, whose bites they defy and avoid with wonderful agility. Firmus, who was invested for a time with the imperial purple at Alexandria, swam amongst crocodiles with impunity; it is supposed that he owed this preservation to the o our of the crocodiles' grease with which he had rubbed his body.‖ It is probable that the knowledge of an analogous secret having become common, was the cause of a similar ordeal formerly employed in Hindostan falling into disuse. The accused was obliged, in the presence of Brahmans, to swim across a river frequented by the Moudela (crocodile); and was only absolved when he escaped from the jaws of this

* *Atken.* lib. III. cap. v.

† The juice of the Citrus *Medica* is not unlike that of the Orange. The odour of the rind is grateful, but not very powerful; it is, therefore, more probable that, the fruit after the abstraction of the juice, was filled with strong odours, than that the juice of the fruit itself taken internally, was employed for the purpose mentioned in the text.—ED.

‡ Aelian. *de Nat. Animal.* lib. I. cap. XXXVII.

‖ Vospic. *in Firmo.*

amphibious animal.* The Mexican priests rubbed the body with a pommade to which they attributed magical virtues; and at night they wandered in desert places, without fearing ferocious beasts; the odour of this unguent keeping them at a distance. There still exists a method of making animals, generally formidable, follow any one without danger; a feat commonly practised by men, who make a trade of enticing away dogs for sale to supply anatomists; and sometimes by hunters, who wish to allure wolves into a snare. It consists in striking the sense of the male by odours resembling the emanations which the female exhales in the time of rutting. It has been mentioned, in detail, by one of the most original and the most philosophical writer of the sixteenth century.† Galen‡ has also mentioned it; but it

* Paulin de St. Barthélemi, *Voyage*, &c. vol. 1. page 428.—The Crocodile of the Ganges differs from that of the Nile, and is placed by Cuvier in that division of the tribe, named Glaviales; but it is equally voracious as the Egyptian reptile. As the Egyptian priests possessed the secret of taming their crocodiles, it is not improbable that the Brahmans also tamed the Moudela. The ordeal mentioned in the text, was performed in their presence: and when they were desirous of exculpating the accused, a part of the river containing the tame crocodiles might be selected. The tame crocodiles in Egypt were fed with cakes, and sweatmeats; and rings and precious stones were hung in the opercula of their ears, which were pierced for the purpose, and their fore feet adorned with bracelets when they were presented tor the veneration for the people: a demonstrative proof of the tameness to which they were reduced. —Ed.

† Rabelais. *Hist. de Gargantua et de Pantagruel.* liv. 1. chap. xxii.

‡ *Galen.* lib. 1. *Aphorism.* xxii.

was known long before the time of that celebrated physician. In the temple of Olympus, a bronze horse was exhibited, at the sight of which real horses experienced the most violent emotions. Aelian judiciously observes that the most perfect art could not imitate nature sufficiently well to produce so strong an illusion: like Pliny and Pausanius,* he, consequently affirms, that in the casting of the statue, a magician had thrown some Hippomanes upon it; and thus we have the secret of the apparent miracle. Every time they desired to work it, they duly covered the bronze with liquid Hippomanes, or with a drug which exhaled the odour of it.†

A similar artifice attracted the bulls towards the brazen heifer, the masterpiece of Myron; as it is not probable that these animals were sensible of the beauty of the sculpture; a less perfect representation, would under similar circumstances, have equally provoked their desires.

The same secret shows, perhaps, the origin of the dream by which, it was said, a mortal favoured by the Gods drew after him lions and tigers, who were thus deprived of their ferocity. This miracle has been attri-

* Pausanias. *Eliac.* lib. I. cap. XXVII. Plin. *Hist. Nat.* lib. XXVIII. cap. II. Aelian. *De Nat. Animal.* lib. XIV. cap. XVIII.

† The Hippomanes is a plant which grows in Arcadia: by which young coursers and swift mares are excited to furious desires.—(Theocrit. *Eidyll.* II. vers. 48—49.) Junius Philargyrus (in *Georgic.* lib. III, vers. 280.) confines the effect of this plant to the mares who eat of it. Nevertheless, perhaps, the odour which this vegetable exhaled was the principle of its properties, and they were enabled to make use of it to work the assumed miracle which has been noticed.

buted more generally to the power of music. Plato assures us that song and melody can tame savage animals, and even reptiles.* We might be tempted to believe that, in this case, the philosopher had allowed himself to be governed by the not very philosophic liveliness, of his imagination, or that he had only repeated an opinion, which we might suppose was not received from, nor founded upon observation. The charm of music, however, has consoled elephants in their captivity, when they have fallen into the power of man; and, in their domestic state, the execution of measured airs and harmonised chords is sufficient, it is said, to make them stand erect upon their hind legs.† In Lybia, savage mares are so sensible to music, that it has been used as a method of taming them.‡ Even some fish, we are told, are not free from its power, and it has made the capture of them much more easy;‖ and moderns, less disposed to be credulous, are nevertheless forced to acknowledge the power which music exercises over tortoises and spiders.§ Its influence over elephants has been frequently verified before our eyes, in public exhibitions. A tra-

* Plato. *de Rep.* lib. II.

† Aelian. *De Nat. Animal.* lib. XII. cap XLIV. et lib. II. cap. II.

‡ Aelian. *De Nat. Animal.* lib. XII. cap. XLIV.

‖ Aelian. *De Nat. Animal.* lib. VI. cap. XXXI.—XXXII.—It is perhaps upon this account, that fishermen, who are generally extremely superstitious, sing a peculiar crone in dredging oysters. —ED.

§ We are not aware of the ground upon which this remark of our author is founded; as the organ of hearing in spiders has not been discovered; and that of the tortoise is not well adapted for the delicacy of musical sounds.—ED.

veller has also informed us that he saw, with surprise, the cumbrous Hippopotamus so delighted by the measured noise of a war march, as to follow the drums, swimming the whole length of a river. Large Lizards and Iguanos are still more susceptible of harmonious sounds. A song, and even soft and measured whistling, has more than once been able to stop them, until they were under the hand of the hunter.*

Cats, who are overcome or frightened by sounds that are too piercing, are agreeably affected by music, if the softness of its modulations are proportionate to the susceptibility of their organs. Dogs, on the contrary, appear to be sensible to none but mournful music. Loud and piercing sounds draw from them only prolonged howlings.

In a temple, a lyre, which passed for that of Orpheus, was preserved: an amateur bought it, persuaded that in touching it he should, like the first possessor of the instrument, see animals running round him charmed by the melody. He made a trial of it in a remote place, and soon perished, having been torn to pieces by savage dogs.† It was not only, as Lucian pretends, his presumption which cost him his life, but his imprudence; and the forgetfulness of a physical effect which daily experience recals to our recollection, and which would place the life of an organ player in danger, if out of the reach

* Lacépède. *Histoire Naturelle des Quadrupèdes Ovipares.* art. *Iguane.*—Fournier-Pescay. *Dictionnaire des Sciences médicales.* art. *Musique.*

† Lucian. "*Contre un Ignorant qui achetait beaucoup de Livres,*" *Œuvres complètes de Lucien,* tome. iv. page 274—276.

of succour. He made the harsh sounds of his instrument to resound in the midst of a troop of wild dogs.*

The influence of modulated sounds upon animals must have been more studied formerly than it is in the present day; the experiments were more varied, and their results more extended. Let us remember that, in the temples, they sought out and tried every method of working what they desired to be regarded as miracles; and what wonder could be more seducing or more worthy of being represented in the celebration of those mysteries, of which Orpheus was one of the prin-

* The influence of loud and harsh sounds on dogs, is well exemplified in the following anecdote, recorded by Sir David Brewster, in his *Letters on Natural Magic.* "When peace was proclaimed in London, in 1697, two troops of horse were dismounted, and drawn up in line in order to fire their vollies. Opposite the centre of the line was the door of a butcher's shop, where there was a large mastiff dog of great courage. The dog was sleeping by the fire; but when the first volley was discharged, it immediately started up, ran into another room, and hid itself under a bed. On the firing of the second volley, the dog rose, ran several times about the room, trembling violently, and apparently in great agony. When the third volley was fired, the dog ran about once or twice with great violence, and instantly fell down dead, throwing up blood from the mouth and nose." (p. 216.) It may be said, that the dog, in this instance, might have been dreaming, and connected the noise of the firing, with some incident in his dream, sufficient to excite great alarm: but we are told that he was a dog of great courage, and although he might be greatly agitated on being awakened by the firing, yet it is not likely that this alarm would continue to such an extent as to cause death. We must, therefore, refer it to the great susceptibility of dogs for sound; and the effect of so loud a concussion of the air on his nervous system.—Ed.

cipal founders, than that which realised the brilliant miracle of that musician ?

We are ignorant how far the moral development of animals extends. We, who in our relations with them, obtain everything by terror, by constraint, by hardship, and by punishments, rarely or never seek to know what may be obtained from them by mildness, by caresses, or by amiable feelings. We seem practically to follow the absurd opinion of Descartes; we treat animals as if they were only machines. Less enlightened nations than ourselves treat them as sensible beings, as creatures not less susceptible of kindness than men; beings who may be led by good treatment, and by that part of their feelings and affections of which these nations know how to take advantage. What can be thus obtained, renders probable all that ancient authors have related of savage animals which have become domesticated, and have even been rendered affectionate. Cynocephali have lost their love of unsettled independence; and bulls their wild and suspicious temper; even lions and eagles have lowered their pride, and exchanged it for a submissive attachment to the man from whom they have received kindness.*

* Aelian. *De Nat. Animal.* lib. II. cap. XL. lib. V. cap. XXXIX. lib. VI. cap. X. lib. XII. cap. XXIII.—The Editor saw the exhibition of Van Amburg, when he visited London in 1843. He fearlessly entered the grated boxes, or dens, containing tigers and other savage animals, who seemed to regard him with no evil intentions: and, indeed, were completely submissive to his control. The method which this man employed to tame these animals is not known; but it is probable that it was partly gratitude, and partly fear which held them in submission. He regularly fed them himself, and their hunger was well satiated

Goats and crows were brought into the temples to declare the oracles; but the learned animals that are frequently offered to public curiosity, show us what part of the will of heaven charlatanism could draw from these singular interpreters.

We may hesitate, therefore, before denying the existence of the tamed tigers, which so many traditions inform us figured in the fêtes of Bacchus; and which, bred at Thebes, attended in the temples of that God, opening and closing their frightful jaws, that there might be poured into their throats, at long intervals, draughts of wine,* with which prudence probably mixed some soporific drugs.

The employment of carrier pigeons did not take its rise in civilized Europe; its antiquity is so great in the East, that the national writers affirm it was used

before his public exhibitions. The ferociousness of wild carnivorous animals may be regarded as a gift of Providence, to enable them to obtain their subsistence. They occasionally fight with each other; and the conquered may even be devoured by the conqueror; but it does not follow that their dispositions are naturally cruel, or that the ferocity which they display is exerted for other purposes than in procuring their prey when hunger prompts. Even animals usually supposed to have a natural enmity to each other, as the hawk and the linnet, if well fed, display no disposition to exert animosity. A striking proof of this remark is daily exhibited in the streets of London, by a person who has a cage containing cats, mice, hawks, linnets, rabbits, and various other animals, living together in perfect amity. It is, therefore, very possible that a man, being exposed to wild beasts, soon after they have been well fed, would remain unattacked; and thus an apparent miracle be produced.—Ed.

* "*Expectant que cibos, fuso que horrenda supinant ora mero.*" (Stat. Thébaid. lib. vii. vers. 575—576.)

in the Pantapole of Palestine. Among the Arabs two months were sufficient for the education of a pigeon: bad treatment had no part in it; and the pigeons were so well brought up that, according to the direction in which they were placed, they carried messages to three different places.* The Greeks were not ignorant of this art. A dove flew from Pisa to the isle of Egina, to announce to the father of Taurosthenus the victory which that wrestler had won, the same day, in the Olympic games. This fact, though not common, appeared too simple for the friends of the marvellous! In detailing the event, instead of the winged messenger they substituted a phantom, an apparition.† Ancient history informs us of more than one victory, the news of which had arrived almost at the moment in which it was accomplished; and, probably by an analogous process, even in places distant from that in which the battle had been fought. The means of communication being kept secret, its rapidity appeared a miracle due to the intervention of some supernatural agent.

If it were proposed to a European to tame a Crocodile, and if he undertook the task, he would probably employ hunger and the privation of sleep; and he would

* The *Carrier Dove*. (translated from the Arabic by Sylvester de Sacy. in 8°. Paris, 1805.) pages 36, 52, & 74.

† Aelian. *Var. Hist.* lib. IX. cap. II. *Pausanius Eliac.* lib. II. cap. IX.—In the last days of the Roman republic, Hirtius employed the same method to communicate his movements to Decimus Brutus, besieged in Modena. (*Frontin Stra.* lib. III. cap. XIII.) The impatience of swallows to fly back to their nests, has caused them to be employed in a similar manner. Pliny has quoted two examples of it. (*Hist. Nat.* lib. X. cap. XXV.)

endeavour to weaken the animal until he rendered him docile or incapable of resistance. Would he succeed? We may reply in the negative. Mr. Laing* saw, at the house of the King of Soolimas,† a tamed Crocodile as gentle as a dog; but this animal was a prisoner, shut up in a pond in the palace. Would it not, we may inquire, regain its natural ferocity were it set at liberty? The Scheik of Suakem‡ having caught a young Crocodile, tamed it and kept it in a pond near the sea. The animal grew very large, but did not lose its docility: the Prince placed himself upon its back, and was carried a distance of more than three hundred steps by it.‖ In the isle of Sumatra, in 1823, an immense Crocodile established itself at the mouth of the Beaujang: it had chased away all the other Crocodiles; and devoured all those who ventured to return. The inhabitants rendered it divine homage, and respectfully supplied it with food. "Pass," said they to the English missionaries who relate the fact, and who seemed afraid to approach the formidable amphibious creature, "pass on, our God is merciful." In fact, it peaceably regarded the European's boat, without giving any signs either of fear or anger

* Laing's *Travels among the Timaunies, the Kouranko, and the Soolimana*, p. 353.

† The Soolimas are a negro race, occupying the country near the river Ioliba, on the coast of Sierra Leone. They are a short, muscular, and warlike people.—Ed.

‡ A sea-port town in Nubia, on the west coast of the Red Sea. —Ed.

‖ Vincent Le Blanc. *Voyages*.—1ère. partie. chap. ix. tome i. p. 39.

or of a wish to attack it.* This trait recals to recollection the sacred Crocodiles, which the people of Upper Egypt worshipped. We might ask, is that a fact? Can it be possible? Did not the priests, every day, run the chance of becoming the prey of their divinities, of pondrous and fierce animals, formidable on the earth, and still more so in the water? Far from this being the case, we see how easy it is to tame the worshipped animals, who thus re-assured, by long experience, against the fear of the aggressions of man, and the anxiety of want, lose their savage instinct. There was, therefore, probably little exaggeration in what was said of the sacred Crocodiles: by a disciple of the Egyptian priests, "The Soukh-oos is kind, for he never harms any animal."†

* John Anderson, Missionary to the eastern side of Sumatra, in the year 1823. *Nouvelles Annales des Voyages*, tome xxx. p. 260. —The crocodile of the Ganges is also very easy to tame. *Voyages aux Indes Orientales*, by P. Paulin de Saint Barthélemi, tome III, p. 281—282, note.

† Damasc. *Isidori Vit. ap. Photium. Bibl. Cod.* 242.—Soukhos; this name, according to M. Geoffroy de St. Hilaire, designated a distinct species of crocodile. The Egyptians detested the Crocodile *T'emsah*, a voracious animal, which caused them to suffer frequent injuries: but they liked the Soukh, a species of a less size, rarely terrible to men: and which, showing itself on earth before all the other Crocodiles, at the swelling of the Nile, seemed to announce and to bring the benevolent inundation, of which it became the sacred symbol. Upon the banks of the Ganges the Indians also distinguished two species of Crocodiles, one ferocious and carnivorous, the other perfectly innocent. (Aelian. *De nat. anim.* lib. XII. cap. XLI.)

The reptile thus worshipped is supposed by M. Geoffroy de St. Hilaire not to have been the common Crocodile, *Crocodilus*

The agility of the movements of serpents, the enormous strength of these reptiles; the difficulty of distinguishing at the first glance those whose bite is not venomous from those which are poisonous, is sufficient to explain the fear and horror which serpents inspire; and the idea of supernatural power attached to the

*vulgaris*, the *T'emsah* of the Egyptians, but the Monitor, or *Suchus*; an opinion, however, which Cuvier combats, because he affirms that the Monitor is as ferocious as the common Crocodile. In ancient Egypt, the Crocodile was one of the symbols of Typhon, the evil Deity; and some of the bronzes bear the representation of a man, supposed to be Horus (whose father, Isis, was slain by Typhon,) standing on a Crocodile. The tame Crocodiles, as stated in a former note, were daily fed with roasted meat and cakes, and had occasionally mulled wine poured down their throats. Their ears were ornamented with rings of gold and precious stones, and their fore feet adorned with bracelets. As such was the treatment of the sacred Crocodiles, there is no difficulty in accounting for their docility. The most ferocious animals will not attack their ordinary prey, when well fed. The following account is given of a tame Alligator, in a private letter, quoted in a review of the *Erpétologie Générale*, and affords an excellent proof of the foregoing remark. The writer having ridden a considerable distance to a village about eight miles from Kurrachee, in Scinde, and feeling thirsty, went to a pool to procure some water. "When I got to the edge," says he, "the guide who was with me pointed out something in the water, which I had myself taken to be the stump of a tree; and although I had my glasses on, I looked at it for some time before I found that I was standing within three feet of an immense Alligator. I then perceived that the swamp was crowded with them, although they were all lying in the mud so perfectly motionless that a hundred people might have passed without observing them. The guide laughed at the start I gave, and told me that they were quite harmless, having been tamed by a Saint, a man of great piety, whose tomb was to be seen on a hill close by; and that they continued to obey the

art of handling them, and of rendering them powerless. The biographer of Pythagoras, anxious to exalt his hero, calls our admiration to the philosopher's exercising a power equal to that of Orpheus upon animals, and handling with impunity serpents, dangerous to all

orders of a number of Fakeers, who lived around the tomb. I proceeded to the village immediately, and got some of the Fakeers to come down to the water with a sheep. One of them then went close to the water with a long stick, with which he struck the ground, and called to the Alligators, which immediately came crawling out of the water, great and small together, and lay down on the bank all around him. The sheep was then killed and quartered; and while this was going on, the reptiles continued crawling until they had made a complete ring around us. The Fakeer kept walking about within the circle, and if any one attempted to encroach, he rapped it unmercifully on the snout with his stick, and drove it backwards. Not one of them attempted to touch him, although they showed rows of teeth that seemed able to snap him in two at a bite. The quarters of the sheep were then thrown to them, and the scene that followed was so indescribable that I shall not attempt it; but I think if you will turn to Milton, and read his account of the transformation of Satan and his crew in Pandemonium, you may form some faint idea 'how dreadful was the din.' In what manner these monsters were first tamed I cannot say. The natives, of course, ascribe it to the piety of the Saint, who is called Miegger Pier, or Saint Alligator." [a]

Another reason might be assigned for the impunity with which persons have gone amongst Crocodiles, namely, that in some places, as in the Nicobar islands, there may be two species of Crocodiles; one small, fierce, and rapacious; the other large, less fierce, and preying only upon carrion. This anecdote is, at all events, quite sufficient to give authenticity to the stories of the ancients respecting the Crocodile. The Egyptian God, *Souk*, is represented with the head of a Crocodile.—Ed.

[a] *Edinburgh Review*, vol. lxxx. p. 428.

but himself.* Jugglers who exhibit in a similar manner in public, profit by their facility in inspiring fear, to extort money from the curious; and this singular kind of pilfering has been repeated often enough to draw down the animadversion of the law upon its authors.†

There were always supposed to be a great number of serpents, the bite of which was not of a venomous character which easily admitted of their being tamed. Such were doubtless those immense, but harmless serpents, that were seen in many ancient temples;‡ the serpent, fifteen feet long, which Ajax, son of Oileous, had tamed,‖ and which followed him like a faithful dog, and the enormous reptile that was taken alive by the soldiers of Ptolemy Auletes,§ and which became as gentle as a domestic animal. Tamed adders, perfectly docile and affectionate, have been seen a thousand times in Europe. In Timauni a serpent was shown to the traveller Laing,¶ which, at the order of the musician, curved itself, rolled itself, and jumped, as obediently and adroitly as the best disciplined animals.** Among the negroes of Dutch

* Iamblich. *in Vit. Pythag.* cap. XIV. et cap. XVIII.

† "In circulatores qui serpentes circumferunt et proponunt, si cui, ob eorum metum, damnum datum est, pro modo admissi actio dabitur." *Digest.* lib. XLVII. tit. XI. § XI.

‡ Aelian. *De Nat. Anim.* lib. XIII. cap. XXXIX. XV.—321. XVI. 39.

‖ Philostract. *in Héroïc.*

§ Tzetzès. *Chiliad.* III. n. 113.

¶ Laing. *Travels among the Timaunies the Kouranko*, etc. p. 244—246.

** I shall quote the passage, to show the extraordinary influence which the Soolimana jugglers possess over serpents. "A droll-looking man," says M. Laing, "who played upon a sort of guitar,

Guinea, there are women who have the occupation of divineresses, one of the proofs of whose supernatural art is to tame the serpent, *papa* or *ammodite*, a reptile of large dimensions but which is never dangerous; and to make it descend from a tree only by speaking to it.*

the body of which was a calabash, commenced a sweet air, and accompanied it with a tolerably fair voice. He boasted that by his music he could cure diseases; that he could make wild beasts tame, and snakes dance: if the white man did not believe him, he would give him a specimen. With that, changing to a more lively air, a large snake crept from beneath a part of the stockading in the yard, and was crossing it rapidly, when he again changed his tune, and playing a little slower, sung, 'Snake, you must stop: you run too fast; stop at my command, and give the white man service.' The snake was obedient, and the musician continued, 'Snake, you must dance, for a white man is come to Falaba; dance, snake, for this is indeed a happy day.' The snake twisted itself about, raised its head, curled, leaped, and performed various feats, of which I should not have supposed a snake capable." L. c. p. 245.

In India the snake charmers are equally adroit, and play many tricks to excite the astonishment of Europeans who have shortly arrived in the country. They also pretend to catch snakes, when these reptiles get into houses. Those who practise this employment are called *Sampoori*; but they are great rogues, and generally take the snake, which they pretend to catch, with them. Among other tricks, they assert that they take a stone from the head of the snake, which has the virtues of an amulet. Major Moor gives an amusing anecdote of his having detected this imposition of extracting a snake-stone, in a Sampoori, whom he employed to catch a snake in his fowl-house. "At the proper moment," says he, "I seized the snakeless hand of the operator, and there found, to his dismay, *perdue*, in his well closed palm, the intended to be extracted stone. The fellow made a free and good humoured confession of the trick."—Ed.

* Stedmann. *Voyage in Surinam*. vol. III. p. 64—65.

Even the Asp,* so justly dreaded, may be tamed without trouble. In Hindostan, sugar and milk, which are given to it every day, suffice to work this miracle. The reptile returns regularly at the accustomed hour to take the repast which awaits him, and never injures any one.† Was it not by an analogous artifice that the Egyptian priests caused inoffensive Asps to come forth from the altar of Isis? And by which, so often in Greece

* The Asp, Vipera *Haje*, Puff Adder? is a snake of a green colour, about five feet in length, marked with brown bands; and which like the Cobra de Capella, has the power of swelling its neck externally when it raises itself to strike its victim. Its venom is most deadly, and is supposed to be that which Cleopatra employed to terminate her existence after the loss of her imperial paramour. The reptile, although most venomous, yet possesses remarkable social qualities, never living alone, and revenging the death of its fellow with the utmost fury. The jugglers of Grand Cairo possess the art of taming it, and of depriving it of its poison bag. They have also the art of throwing it into a state of catalepsy, by pressing the nape of the neck with their fingers, so that it becomes stiff and immoveable like a rod. The rods of the Egyptian priests who contended with Aaron, were probably real cataleptic Asps, which regained animation when thrown upon the ground. The Asp erects itself when approached, a circumstance which led the ancient Egyptians to assume that it thus guarded the place it inhabited; and to venerate it as the emblem of the Divinity protecting the world. It is found sculptured on their temples, erect, on each side of a globe.

The poison of the Asp is secreted at some distance from the fangs, and is conveyed to them by a tube which terminates in the pulp cavity, at the base of the fang, where a groove commences, superficial at first, but gradually sinking into the substance of the tooth, and terminating in a longitudinal fissure near its apex. Through this groove the poison is ejected and infused into the wound.—Ed.

† Paulin de St. Barthélemi. *Voyages aux Indes Orientales*. vol. i. p. 477.

and in Italy, sacred serpents came to devour the presents disposed upon the altars of the Gods, thus giving to the people, a certain presage of happiness and of victory.

There are few stories more common than those of genii being metamorphosed into the form of serpents, and placed to guard subterranean treasures. This belief is still popular in Brittany, in the district of Lesneven.* It is general in Hindostan: and there, at least, it is supposed it is not always without foundation. Forbes, an English observer, who is generally quoted with confidence in his veracity, relates the following anecdote. In a village of Hindostan, a vault, placed under a tower, contained, it was said, a treasure guarded by a genii, under the form of a serpent. Guided, even by the workmen who had built the vault, Forbes caused it to be opened: it was of considerable depth and, he discovered there an enormous serpent, which he compared, by its size, to the cable of a vessel. The reptile, unrolling itself slowly, raised itself towards the opening made in the upper part of the vault. The workmen immediately threw into it some lighted hay, and the serpent died from suffocation. Forbes found there its carcase, but not the treasure; the proprietor having probably carried it away.† The reader will observe, that the construction of the vault was not ancient. The serpent, that had been placed there, had already attained to a large size, and it must have been well tamed, and very docile, to allow itself to be confined there: it also must have known its master well

* Cambry. *Voyage dans le département du Finistère.* vol. II. p. 25.

† *Oriental Fragments.* p. 84.

since the latter was able to carry off his riches, without having any thing to fear from the sentinel, which watched over them ; and whose life he should then have saved, by restoring it to liberty.

The most dangerous serpents, with the exception of those which are terrible from their strength, cease to be hurtful from the time when they lose their fangs, which are destined by nature to convey the poison, with which they are armed, into the wounds that they make. To make them bite several times, a piece of rag or some stuff, such as *felt*, is held out to them ; and thus the reservoirs of venomous liquid are drained, a circumstance which is often sufficient to prevent their bite, for one or more days, from carrying with it any danger. In the capitals of Europe, and in the savage interior of Africa,* one or other of these secrets is used by those impostors, who play with snakes before the eyes of a frightened crowd.†

* *Voyages and discoveries in Africa;* &c. by Oudney, Denham, and Clapperton. vol. III. pages 39—40.

† Our author labours to prove, that the serpents played with by the Indian, and Egyptian jugglers, are either harmless serpents, or those from which, as the Abbé Dubois would lead us to believe, the venom fangs have been extracted.[a] But there can be no doubt that the ancient Psylli had some method of fascinating all kinds of serpents ; and the art may be still known to their successors in Egypt, and Hindostan.—In the Psalms (chap. LVIII. v. 4), we find the words " like the deaf adder that stoppeth her ear ; which will not hearken to the voice of the charmers, charming ever so wisely ;" a proof that the art was formerly practised. The serpent usually exhibited by the Hindoo charmers is the Hooded Serpent, *Cobra de Capello*, (*Naja lutescens* of Laurenti) one

[a] *Description of the People of India*, p. 469—479.

Both will explain the gentleness of the serpent, which, a hundred years ago, was seen by two French travellers,* in Upper Egypt; and which superstition represented, by turns, as an angel; as one of the benevolent genii; and as the demon who formerly strangled the first six husbands of the wife of the young Tobias.

Hindoo jugglers, says a traveller, allow themselves to be bitten by snakes;† and when the strength of the

of the most venemous of the tribe. Music, which seems to be peculiarly delightful to that description of serpent, is the power by which they appear to be fascinated. The reptile raises itself from the ground, and keeps time by the most graceful movements and undulations of the head and body, to the notes of the flute. When the music ceases, it sinks down, as if exhausted, in a state of almost insensibility; when it is instantly transferred to the charmer's basket. That such snakes are still poisonous is verified by a fact, related in Forbes' Oriental Memoirs, (vol. I. p. 44. vol. II. p. 387.) On the music stopping too suddenly, or from some other cause, the serpent, who had been dancing within a circle of country people, darted among the spectators, and inflicted a wound in the throat of a young woman, who died in agony, in half-an-hour afterwards.

The structure of the ear in serpents does not indicate the faculty of acute hearing; yet, when newly caught, these reptiles seem delighted with music, and writhe themselves during its continuation into graceful attitudes. I am of opinion that, although coated with scales, yet, the sensibility of the serpent is great, and the vibration of sound is felt over the whole body, and when the notes are harmonious, the effect is soothing. The Hindoos, from seeing the docile character of venomous serpents in the temples, believe that the Deity has condescended to adopt that form.—Ed.

* *Voyage du sieur Paul Lucas* in 1699. vol. I. pages 72—78, &c. *Voyage du sieur Paul Lucas* in 1715. vol. II. page 348—354. —*Voyage fait en Egypte par le sieur Granger*, pages 88—92.

† Terry, *East India*. sect. IX.

poison causes the wounds to become extraordinarily inflamed, they suddenly cure them with oils and powders, which are then sold to the spectators.* The swelling is certainly only apparent; the art of counteracting the effect of a poison which has already entered the system, and is so much advanced in its progress, is too wonderful to be lightly believed. For fortifying themselves against danger from the bites which they encounter, it is sufficient for the jugglers to force the reptile previously, to exhaust the reservoirs in which its venom is enclosed. It cannot be doubted but that they make use of this secret; since Koempfer† has seen it put in practise in the same country, by those jugglers, who teach the serpent Naja, (Cobra de Capello), the poison of which is so justly dreaded, to dance.

But to suppose that the venomous bite of a reptile is not dangerous to certain men, but proves mortal to all

* The snake-stones mentioned in a former note, are generally employed by the Indian snake-charmers, to render the bites of the snakes, which they pretend to be still venomous, innocuous. "He suffers himself," says Major Moor, detailing an exhibition of this kind, "to be bitten by the seemingly enraged reptile, till he bleed. He then, in haste, terror, and contortion, seeks a snake-stone, which he is never without, and sticks it on the wound, to which it adheres. In a minute, or two, the venom is extracted, the bitten part recovers, and the stone falls off, or is removed. If put into a glass of water, it sinks and emits small bubbles every half score of seconds. This is the usual test of its genuineness; and it is odd if no one will give a rupee, or half a rupee, for such a curiosity.[a]—Ed.

† Koempfer. *Amoen. exot.* page 565 et seq.—Lacépède. *Hist. Nat. des Reptiles.* art. du *serpent à lunettes* ou *Nagá.*

[a] *Oriental Fragments.* p. 80.

others, is an assertion belonging peculiarly to the fabulous; the numerous passages in books of travels, in which the power of charming serpents is mentioned, must be interpreted in an allegorical sense. In China there are men who appear to be as bold as the ancient Psylli, and who expose themselves to bites apparently dangerous, but who can only be looked upon as clever impostors. In vain do the Latin and Greek writers assure us, that the gift of charming venomous reptiles was hereditary in certain families, from time immemorial; that, on the shores of the Hellespont, these families were sufficiently numerous to form a tribe; that in Africa the same gift was enjoyed by the Psylli; that the Marses in Italy, and the Ophiogenes in Cyprus possessed it, for, on examining their origin, we find that the former pretended to derive it from the enchantress *Circè*, the latter, from a virgin of Phrygia united to a sacred Dragon.* They forget that, in Italy, even at the commencement of the sixteenth century, men, claiming to be descended from the family of Saint Paul, braved, like the Marses, the bites of serpents.†

To repel a statement, which seemed too wonderful, the evidence of Galen may be brought forward; he says, that, in his time, the Marses possessed no specific secret, and that their art was confined to deceiving the people by address and fraud;‡ and that it may be concluded

* Plin. *Hist. Nat.* lib. VII. cap. II.—A. Gell. *Noct. Attic.* lib. IX. cap. XII. et lib. XVI. cap. II.—Strabo. lib. XIII.—Aelian. *De Nat. Animal.* lib. I. cap. LVII. et lib. XII. cap. XXXIX.

† Ascensius. *Not. in* A. Gell. *Noct. Attic.* lib. XVI. cap. II.

‡ Aelian. *libr. de Theriac. ad Pison.*

that fraud and address had, alike, been put into practice at all times. The assertion of the physician of Pergamus is not destroyed by a well known anecdote in the history of Heliogabalus.* This Emperor made the Marsian priests collect serpents, and caused them to be thrown into the circus at the moment when the people came there in crowds. Many of them perished from the bites of these serpents, which the Marses had braved with impunity.

Travellers worthy of credence have at length arisen, and have said to us, "I have seen." Thus says Bruce, Hasselquist, and Lemprière,† and they have been convinced by their own eyes, that in Morocco, in Egypt, in Arabia, and above all, in Sennaar, there are many men who have such a peculiarity of habit that they disregard the bites of vipers and the sting of scorpions; and both not only handle these reptiles with impunity, but also throw them into a state of stupor. To complete their resemblance to the ancient Psylli, they assured Bruce they were born with this marvellous faculty. Others pretended to owe it to a mysterious arrangement of letters, or to some magic words, which resembled the ancient songs, used for charming serpents; and furnished a new example of the habit so prejudicial to science, of concealing a physical secret, in attributing its effects to insignificant and superstitious practices.

Doubts upon this subject, if they could have existed,

* Lamprid. *in Ant. Heliogabal.*

† Bruce. *Travels to discover the sources of the Nile,* vol. x. pages 402—403—412—447. Hasselquist. *Voyage in the Levant.* vol. i. pages 92—93—96—100. Lemprière, *Voyage dans l'empire de Maroc et le royaume de Fez, en* 1790—1791. pages 42—43.

were removed for ever at the time of the brilliant expedition of the French into Egypt; and the following relation is attested by thousands of eye-witnesses. The Psylli who pretended, as Bruce had related, to possess the faculty which distinguished them, went from house to house to offer their assistance to destroy serpents of every kind, which were almost common there. If we may believe them, a wonderful instinct drew them at first towards the place in which the serpents were hidden. Furious,—howling, and foaming at the mouth, they hurried there, and then, rushing upon the reptiles, they seized and tore them asunder with their nails and teeth.

Let us place to the account of charlatanism, the howlings, the foaming, and the fury, in fact, all that recals the painful efforts which the Marses feigned, in repeating the songs, proper for destroying the reptiles;* still the instinct which warned the Psylli of the presence of the serpents has in it something more real.

In the Antilles, the negroes discover by its odour a serpent which they do not see; a power in fact owing solely to the nauseous odour which the serpent exhales.† In Egypt, the same tact, formerly possessed is still enjoyed by men, brought up to it from their infancy, and born, as with an assumed hereditary gift, to hunt serpents, and to discover them even at a distance too great for the effluvia to be perceptible to the dull organs of an European. The principal fact above all others, the faculty of rendering dangerous animals powerless, merely by touch-

* *Venas intendens omnes.* Lucil. *Satyr.* lib. xx.

† Thibaut de Chanvallon. *Voyage à la Martinique.*

ing them, remains well verified; and we shall, perhaps, never understand better the nature of this secret celebrated in antiquity, and preserved to our time, by the most ignorant of men.*

Some reflections on this subject will not, perhaps, seem here out of place.

The senses of animals resemble our own, but the resemblance is not complete; we cannot perceive some substances which affect them strongly; and they do not seem differently affected by those which appear to us the most dissimilar. This is true of the sense of smelling.† The dog who possesses so exquisite a nose, so susceptible of delicate impressions, of which nothing can give us a correct idea;—the dog seems to make no difference in the pleasure derived from a sweet perfume and a fœtid or

* It is extraordinary to find an individual so little credulous as our author, respecting circumstances of a marvellous character, believing the possibility of rendering poisonous serpents powerless, merely by touching them. If we can believe the existence of such a power, upon what ground can we venture to deny the reality of any apparent miracle, which we may see, or read of, however, contrary to the course of nature? The fangs of serpents are equally defensive and offensive weapons; and as the instinct of the reptile leads him to regard man as his enemy; it is not likely that he would submit to his control, unless as the result of a long course of training, which is the most probable explanation of the phenomenon mentioned in the text. I cannot credit the possibility of such an effect being produced upon newly caught serpents, utter strangers to the juggler; and, therefore, the performance must be placed amongst the numerous other feats, which attest the high degree of perfection in the deceptive art, to which these serpent tamers have attained.—Ed.

† Aelian. *de Nat. Anim.* lib. vi. cap. xxxiii.

an infectious odour. So marked a difference existing between our sensations and those experienced by animals, explains why they may be acted upon by causes which are inadequate to affect the senses of men. At Rome, dogs never entered the temple of Hercules; the smell of the club, which the God had, formerly, left at the door, was sufficient, after fourteen centuries, to banish them from it.* The priests, no doubt, were careful to renew, from time to time, the odour which perpetuated the miracle, and which was not apparent to the sense of men. Albertus Magnus† possessed a stone which attracted serpents. If any part of this tale could be true, we should attribute it to an analogous cause: reptiles, like many insects, are susceptible of being much affected by odorous emanations.

Galen had, I think, been deceived by a false declaration, which the Marses and the Psylli had made

* *Solinus*. cap. II.

† Albertus the Great, or Magnus, the word Groat, his family name, the Dutch for Great, being thus Latinized, was a Dominican, born in Swabia; and who, after he had been made Bishop of Ratisbon, abdicated, and returned as a plain monk to his convent at Cologne, where he died in 1282, in his 77th year. His *Historia Animalium* is the most remarkable of his works. Numerous prodigies have been attributed by the multitude to him: among others, that he made an earthenware head that could answer questions! Thomas Aquinas is said to have been so terrified when he saw it, that he broke it in pieces; upon which the mechanist exclaimed, "There goes the labour of thirty years!"[a] If the apparent speaking of this head, and similar speaking heads, was not the result of ventriloquism, no idea can be formed of the means employed to effect the prodigy—Ed.

[a] Brewster on *Natural Magic*, p. 159.

for the better concealment of their secret, when he says that they owed their power over serpents to the habit of nourishing themselves with the flesh of vipers and venomous reptiles.* Pliny, Aelian, Silius, Italicus, have more correctly ascribed it to the employment of an odorous substance which stupified the serpents, and with which it appeared their enemies rubbed their bodies.† This proceeding inspired the Psylli with so much confidence, that they did not hesitate to expose new-born infants to the bites of serpents, under the plea of assuring themselves of their legitimacy ;‡ or

* Galian. *De Art. Curator.* lib. II. cap. XI.

† "Ut odore sopirent *eos* (serpentes.)" *Plin. Hist. Nat.* lib. VII. cap. II. The same author observes, that the Ophiogènes of the isle of Cyprus, above all, exhaled, in spring, a strong poisonous odour. Lib. XXVIII. cap. III. Aelian. *De Nat. Anim.* lib. XII. cap. XXXIX. et lib. XVI. cap. XXVII.

..... "Et somnum tacto misisse Chelydro (*Sil. Italic.* lib. V. verse 354).

..... "et Chelydris cantare soporem,

"Vipereum que herbis hebetare et carmine dentem." (*idem*, lib. VIII. vers. 496—497.

An impostor caused himself to be bitten in public by Asps : Aelian thinks that he used a beverage prepared to preserve himself from the consequences of the bite. But this could only be an artifice destined to hide the true secret.

‡ The Psylli never divulged to their wives the secret. "*Mulier enim. Psylla esse non potest.*" (Xiphilin. *in August.*—Aelian. *De Nat. Anim.* lib. I. cap. LVII.) Their modern disciples have not imitated their reserve. Hasselquist (vol. I. p. 96—97) mentions a woman who, under his eyes, rendered serpents completely powerless.

rather, in accordance with their suspicions, to destroy the presumed fruits of the adulterer. Bruce assured us that the secret of the Egyptians and Arabs, in bearing the bites of serpents with impunity, consists in bathing themselves in a decoction of herbs and roots, the nature of which they carefully conceal. Forskhal informs us, that the Egyptians charm serpents with a Bitter-wort, an *Aristolochia*, with the species of which he was not acquainted. According to Jacquin, the *aristolochia anguicida* is the plant which is employed by the indigenous tribes of America* for the same purpose.

At this day, when the traces of the emigrations, which had conducted people from the plains of Tartary into equinoctial America have been discovered, it is not surprising to find this secret propagated in the New World. After being convinced of its great antiquity, comparing the narrations of modern travellers with those of ancient historians, it is much more astonishing that we never re-discovered it in Hindostan. It existed there, in fact, from time immemorial.

By the side of every secret of this kind, we are almost

* Hasselquist. *Voyage dans le Levant*. vol. i. p. 100.—This species of Aristolachia is a twining plant, with oblong, sharp-pointed, cordate leaves, with solitary heart-shaped stipules surrounding the stem, and an erect dilated corolla, with a lanceolate, somewhat truncated lip. It is a native of Mexico, where the juice of the root of the plant, mixed with saliva, and called Gti-Gtii, is poured into the wound made by the bite of a serpent; and, after being left undisturbed for some time, ensures the safety of the bitten person. Such is the description of its use and its effects by Jacquin.—Ed.

certain to find some custom which has so far rendered the discovery of it necessary, and to which, on the contrary, it owes, in part, its birth. In Hindostan, in order to ascertain the truth of an accusation, " they throw a hooded serpent, called *Naga*,* into a deep pot of earth, into which they let fall a ring, a seal, or a piece of money, which the accused is obliged to take up with his hand. If the serpent bite him, he is declared guilty; and, on the contrary, if not bitten,

* The Naia *tripudians*, the Cobra de Capello, or Hooded Serpent of the Asiatic Portuguese. It is characterized by the expansive neck which covers the head like a hood; and, when thus dilated, displays upon its upper part two oval disks, united by an arch, which produce the resemblance of a pair of old fashioned spectacles laid upon a beautifully ribbed and dotted ground. Its length is from six to fifteen feet, and its general colour brown. It is the most venomous of the Indian serpents, and its bite is mortal; but, nevertheless, it is rendered docile by music, by being pampered with milk and sugar, and by kind treatment. It is an object of worship in some of the Hindoo temples, and is stated by the priests to be the form which the Deity occasionally assumes. When enraged, and about to strike, it raises its head and part of its body, and dilates the hood, whilst the rest of the body is coiled up on the ground to give force to the spring. Dr. John Davy, in his *Account of Ceylon*, mentions having seen a hen bitten by one of them: it kept its hold for two or three minutes, and was then shaken off by Dr. Davy. " The hen, which at first seemed to be little affected, died eight hours after she was bitten;" but so long a time seldom elapses between the bite and the death of the animal which is struck. The poison, when recent, is colourless, limpid, and in consistence resembles a solution of gum-arabic in water; it is acrid, and loses much of its virulence after being kept.—Ed.

innocent.*" It was thus in Egypt, that the sacred Asps, the intelligent ministers of the vengeance of Isis, gave death to evil, and respected good men.†

* *Asiatic Researches*, vol. I. p. 473. We find that the greatest part of the Hindoo ordeals are equally used in Pegu, among the Burmese.

† Aelian. *De Nat. Animal.* lib. x. cap. xxxi.

END OF VOL. I.

LONDON:
Printed by Schulze & Co., 13, Poland Street.

# THE OCCULT SCIENCES.

—

VOL. II.

# THE OCCULT SCIENCES.

THE

# PHILOSOPHY OF MAGIC,

## PRODIGIES AND APPARENT MIRACLES.

FROM THE FRENCH OF

EUSEBE SALVERTE.

WITH NOTES ILLUSTRATIVE, EXPLANATORY, AND CRITICAL

BY ANTHONY TODD THOMSON, M.D.

F.L.S., &c.

"Non igitur oportet nos magicis illusionibus uti, cum potestas philosophica doceat operari quod sufficit."—Roc. Bacon, *De secr. oper. art. et nat.* c. v.

IN TWO VOLUMES.

VOL. II.

LONDON:
RICHARD BENTLEY, NEW BURLINGTON STREET.
Publisher in Ordinary to Her Majesty.

M.D.CCC.XLVI.

LONDON:
Printed by Schulze and Co., 13, Poland Street.

# CONTENTS

OF THE

# SECOND VOLUME.

---

## CHAPTER I.

Preparations of drugs and beverages; some soporific, others for producing temporary imbecility. Circé; Nepenthes. Delightful illusions; fearful illusions; involuntary revelations; invincible courage, produced by meats and potions.—The Old Man of the Mountains deceived his disciples by illusions: he probably fortified them against torture by stupifying drugs. The use of them becomes habitual, and conduces to bodily insensibility and imbecility . . . 1—34

## CHAPTER II.

Effect of perfumes on the moral nature of man—Action of liniments; the Magic Ointment frequently operated, by occasioning dreams, which the predisposition to credulity converted into realities — Such dreams may explain the whole history of Sorcery—The principal causes which multiplied the number

of Sorcerers, were the employment of mysterious secrets—The crimes which these pretended mysteries served to conceal, and the rigorous laws absurdly directed against the crime of sorcery 35—66

## CHAPTER III.

Influence of the imagination, seconded by physical accessories; in producing an habitual belief in marvellous narrations, by music, by the habit of exalting the moral faculties, by unfounded terror, and by presentiments—Sympathetic emotions increase the effects of the imagination—Cures produced by the imagination—Flights of the imagination, effected by diseases, fastings, watchings, and mortifications—Moral and physical remedies successfully opposed to these flights of the imagination 67—98

## CHAPTER IV.

Medicine formed a part of the Occult Science: it was not long exercised by the priests; diseases were supposed to be sent by malevolent Genii, or the irritated Gods; the cures were considered miracles, or works of magic—Credulity and the spirit of mystery attributed marvellous properties to inanimate substances; and Charlatanism assisted this species of deception—Counterfeit cures—Extraordinary abstinences—Nutritious substances taken in an almost imperceptible form—Apparent Resurrections 99—126

## CHAPTER V.

Poisonous substances—Poisons, the effect of which can be graduated—Miraculous deaths—Poisons employed in ordeals—Diseases asserted to be caused by Divine vengeance—Diseases foretold . . . . 127—144

## CHAPTER VI.

Sterility of the soil—The belief in the means which the Thaumaturgists were supposed to possess for causing sterility arose particularly from the language of emblems—Sterility produced naturally—Cultures which injure one another—Substances which are prejudicial to vegetation—The atmosphere rendered pestilential—Deleterious powder and nitrate of arsenic employed as offensive weapons—Earthquakes and rumblings of the earth foreseen and predicted . . 145—158

## CHAPTER VII.

Meteorology—The art of foreseeing rain, storms, and the direction of the winds; this is converted in the minds of the vulgar into the power of granting or refusing rain, and favourable winds —Magical ceremonies for conjuring a hail storm 159—169

## CHAPTER VIII.

The art of drawing lightning from the clouds—Medals and traditions that indicate the existence of that art in antiquity—Disguised under the name of the worship of Jupiter Elicius and of Zeus Cataibates; it was known to Numa and many others among the Ancients—The imitators of thunder made use of it —It may be traced from Prometheus; it explains the fable of Salmonious: it was known to the Hebrews, and the construction of the Temple of Jerusalem is a proof of this—Zoroaster made use of it to light the sacred fire, and operate in the initiation of his followers: his experiments and miracles—If the Chaldeans possessed the secret, it was afterwards lost among them—There existed some traces of it in India in Ktesias' time —Wonders resembling those performed through this art, which however, may be otherwise explained. . 170—201

## CHAPTER IX.

Phosphorescent substances—Sudden appearance of flames—Heat developed by the slacking of lime—Substances which are kindled by contact with air and water—Pyrophorus, phosphorus, naptha, and alcoholic liquids employed in different apparent miracles—The blood of Nessus was a phosphuret of sulphur; and also the poison that Medea employed against Creusa—Greek fire—This fire, re-discovered, after many attempts—In Persia and Hindostan an unextinguishable fire was used. 202—225

## CHAPTER X.

Compositions similar to gunpowder—Mines worked by it under Herod; by the Christian priests under the Emperor Julian at Jerusalem; and in Syria under the Caliph Motassem; and by the priests of Delphi in order to repulse the Persians and Gauls—Antiquity of the invention of Gunpowder; its probable origin in Hindostan; it has been known from time immemorial in China—Tartar army repelled by artillery—Priests of India employed the same means to hurl thunder upon their enemies—The thunder of Jupiter compared to our fire-arms—Many assumed miracles explained by the use of these arms—Gunpowder was known in the latter empire, probably until the twelfth century. . . . 226—242

## CHAPTER XI.

The Thaumaturgists might have worked pretended miracles with the air-gun, the power of steam, and the magnet—The compass was probably known to the Phocians, as well as the Phœnician navigators—The Finns have a compass of their own;

and in China the compass has been used since the foundation of the empire—Other means of working pretended miracles—Galvanic phenomena—Action of vinegar upon lime—Amusements of physics—Lachryma Batavica, &c. . 243—262

## CHAPTER XII.

Conclusion—Principles followed in the course of the discussion—Reply to the objection that the scientific acquirements of the ancients are lost—Democritus alone, among them, occupied himself with observations on experimental philosophy—This philosopher perceived, in the operations of magic, the scientific application of the laws of Nature—Utility of studying the apparent miracles of the ancients in this point of view—The Thaumaturgists did not connect together their learned conceptions by any theory, which is a proof that they had received them from a prior period—The first Thaumaturgists cannot be accused of imposition; but it would be dangerous, in this day, to attempt to subjugate a people by apparent miracles; voluntary obedience to the laws is a certain consequence of the happiness which just legislation procures to men. . . 263—271

Illustrations . . . . . 273—353

General Index . . . . 355—387

# THE PHILOSOPHY

OF

# MAGIC, PRODIGIES,

AND

# APPARENT MIRACLES.

---

## CHAPTER I.

Preparations of drugs and beverages; some soporific, others for producing temporary imbecility. Circé; Nepenthes. Delightful illusions; fearful illusions; involuntary revelations; invincible courage, produced by meats and potions.—The Old Man of the Mountains deceived his disciples by illusions: he probably fortified them against torture by stupifying drugs. The use of them becomes habitual, and conduces to bodily insensibility and imbecility.

TRIUMPHANT over the obstacles which debarred him from attaining perfection, the initiated beheld all the hidden treasures of science laid open to him. It was no difficult task for him to unravel the secret of the wonders that, in the scenes of his first reception, penetrated him with religious admiration: but destined, thenceforth, to lay open to the profane the path of light, it was time he should learn to what operations he himself had been submitted; how his whole moral being had been subjected to their influences, and how he must employ the same means that had been used in his initiation, in order to

obtain dominion over the minds of those who might aim at attaining to the same point at which he had arrived, and by what means he should display himself all powerful by his works, before those who were not permitted to participate in the divine dignity of the priesthood.

The aspirants to initiation, and those who came to request prophetic dreams of the Gods, were prepared by a fast, more or less prolonged, after which they partook of meals expressly prepared; and also of mysterious drinks, such as the water of *Lethe*,* and the water of *Mnemosyne* in the grotto of Trophonius; or of the *Ciceion* in the mysteries of the Eleusinia. Different drugs were easily mixed up with the meats, or, introduced into the drinks, according to the state of mind or body into which it was necessary to throw the recipient, and the nature of the visions he was desirous of procuring.

We know what accusations had been raised against some of the early sects of christianity, charges which were unjustly reflected upon all christian assemblies. They would scarcely be considered as unfounded, had many heresiarchs adopted the criminal practices imputed by popular rumour to the high-priests of the Markesians.†

* The river which yielded the water of Lethe, and the fountain Mnemosyne, were both near the Trophonian grotto, which was in Beotia. The waters of both were drunk by whoever consulted the oracle; the Lethian draught was intended to make him forget all his former thoughts; the Mnemosynian to strengthen his memory, that he might remember the visions which he was about to see in the grotto. The latter seemed essential, as the consulter was obliged, after emerging from the grotto, and recovering from his alarm, to write down his vision on a small tablet which was preserved in the temple.—Ed.

† The Markesians were a sect named from their chief, the

It is said that in their religious ceremonies aphrodisaic beverages were administered to women. Without judging in this particular case, we believe that powerful aphrodisiacs* were occasionally used in the mysterious orgies of polytheism; and it is only by admitting such a supposition, that we can explain the monstrous debaucheries to which the votaries of Bacchus gave themselves up in the Bacchanalian festivals, denounced and punished at Rome, in the year 186, before Christ. A scene in a romance by Petronius† shows that they were used much later in the nocturnal reunions where superstitious rites were employed as a veil and an excuse for the excesses of libertinism. But such an expedient was extremely limited in its power; it disordered the senses; yet it did not act on the imagination, though it delivered up the physical man to the power of the guilty Thaumaturgist; it did not destroy the moral faculty. The substances destined to produce, in secret ceremonies, the most important effects, were the simplest and most common opiates. We may

heresiarch Mark, who was guilty of so many superstitions and impostures. Among others, St. Irenæus informs us, that in consecrating chalices filled with water and wine, according to the Christian rite, he filled the chalices with a certain red liquor which he called blood. He also permitted women to consecrate the holy mysteries.—Butler's *Lives of the Fathers, Martyrs, &c.* vol. v. chap. XXVIII.

* S. Epiphan. *contr. Haereses.* lib. I. tome III. contr. Marcosios. Haeres. 24.

† Arbiter Petronius is supposed to have been a fictitious name bestowed upon the romance alluded to in the text; whilst others assert that the romance was the production of Caius Petronius, a favourite of Nero, and a minister to his vicious pleasures. The work is a picture of the profligate manners of the period it describes, totally unfit for general perusal.—ED.

readily conceive of what service they were to the Thaumaturgist; whether intended to close eyes too observing, and too quick to scrutinize the causes of the apparent miracles; or to produce the alternatives of an unconquerable sleep, and a sudden awakening; effects well adapted to persuade the man who experiences them, that a supernatural power is sporting with his existence, and changing at his pleasure every circumstance that troubles or that amuses it. Their methods were various; a collection that we possess, and from which we shall quote, furnishes us with two examples. In one case we are informed that a young Prince was sent to sleep every evening by the juice of a plant, and every morning recovered from his torpor by the scent of a perfume.* Again—a sponge steeped in vinegar, and passed under the nose of Aben Hassan, provoked sneezing and a slight vomiting, which suddenly destroyed the effects of the soporific powder which rendered him insensible. In another instance, the same symptoms and results were produced, when a young Princess, who had been sent into a deep sleep by a narcotic, was exposed to the open air.†

In a spot, far removed from the scenes of the thousand and one nights, we find the employment of a similar secret. Among the Nadoessis ‡ in South America, there existed a religious society of men devoted to the Great Spirit. Carver witnessed the admission of a new member into it. The priests threw into the mouth of the candidate something that resembled a bean:

* *The Arabian Nights,* xxvith Night. tome i. p. 221.

† *The Arabian Nights,* ccxcvth Night. vol. iv. p. 97—149.

‡ Carver. *Travels in South America.* p. 200—201.

almost immediately he fell down, immoveable, insensible, and apparently dead. They gave him violent blows on the back, but these did not restore sensibility; nor, for some minutes, bring him as it were to life again. When he did revive, he was agitated with convulsions, that did not cease until he had thrown up what they had made him swallow.*

Plutarch has preserved to us a description of the mysteries of Trophonius, related by a man who had passed two nights and a day in the grotto.† They appear to be rather the dreams of a person intoxicated by a powerful narcotic than the description of a real spectacle. Timarches, the name of the initiate, experienced a violent head-ache, when the apparitions commenced; that is to say, when the drugs began to affect his senses, and when the apparitions vanished and he awoke from this delirious slumber, the same pain was as keenly felt. Timarches died three months after his visit to the grotto; the priests, no doubt, having made use of very powerful drugs. It is said that those who had once consulted the oracle acquired a melancholy which lasted all their lives,‡ the natural consequence, no doubt, of the serious shock to their health from the potions administered to them.

The consulters of the oracle, were, I believe, carried

* It is probable that the seed employed was the fruit of a species of Strychnos, the effect of which is to produce paralysis, with convulsions. That it did not cause death might depend on the entire seed having been swallowed; its influence in that state being considerably less than if it had been administered in powder.—Ed.

† Plutarch. *De Dæmonio Socratis.*

‡ Suidas . . . Clavier, *Mémoire sur les Oracles,* etc. p. 159—160.

to the gate of the grotto, when their forced sleep began to be dissipated. The visions that occupied this slumber most probably formed (as has been also suspected by Clavier*) all the incidents of the miraculous spectacle they believed to have been exhibited by the Gods. On awakening also after having been presented with a drink, probably intended to restore entirely the use of their senses, they were ordered to relate every thing they had seen and heard; the priest requiring to know what they had dreamed.

Powerful soporifics often possess the property of deranging the intellect: the berries of the Belladonna† when eaten produce furious madness, followed by a sleep that lasts twenty-four hours. Still more frequently than bodily sleep, the sleep of the soul, temporary imbecility, delivers up man to the power of those who could reduce him to this humiliating state. The juice of the Datura‡ seed is employed by the Portuguese women of Goa: they

* Clavier. *Mémoire sur les Oracles*, &c. p. 158—159.

† Atropa *Belladonna*, Deadly Nightshade, has fruit resembling a black cherry, seated within a large, green, persistent flower-cup or calyx. The fruit is of a deep black-purple colour, and contains many seeds, enveloped in a sweetish juice. Every part of the plant is poisonous, and when eaten causes symptoms resembling those of intoxication, with fits of laughter and violent gesticulations, followed by dilatation of the pupils of the eyes, delirium, and death. Buchanan, the Scottish historian, states that the victory of Macbeth over the Danes was obtained chiefly by mixing the juice of this plant with wine, which was sent as a donation from the Scots to Sweno during a truce. He adds, "vis fructui, radici, ae maxime semini somnifera, et quæ in amentium, si largius sumantur, agat." —*Rerum Scot. Hist.* lib. VIII. § VI.—ED.

‡ Datura *ferox*, in doses sufficiently large to affect the brain, causes indistinctness of vision, with a disposition to restless

mix it, says Linschott,* in the liquor drank by their husbands, who fall, for twenty-four hours at least, into a stupor accompanied by continued laughing ; but so deep is the sleep, that nothing passing before them affects them ; and when they recover their senses, they have no recollection of what has taken place. The men, says Pyrard,† make use of the same secret in order to submit to their desires women who would consent by no other means. Francis Martin,‡ after having detailed all the injurious effects of the Daturas, adds, that the delirium may be arrested by placing the feet of the patient in hot water : the remedy causes vomiting, a circumstance which reminds us of the manner in which the sleeper and the young Princess in the Arabian Nights, and the initiated Nadoëssis, were delivered from their stupor.

A secret so effectual having fallen into the hands of the ignorant, must, there is reason to believe, have belonged to

sleep, accompanied with delirium, in which the most ridiculous actions and absurd positions are exhibited. All the Daturas, namely, *fastuosa ; Metel : Tatula ;* and even *Stramonium,* which is employed as a medicine in this country, possess nearly similar poisonous properties. The species *Metel* and *Tatula* are employed in the East Indies to cause intoxication for licentious and criminal purposes.—Ed.

* Linschott. *Narrative of a Voyage to the East Indies, with the notes of Paludanus.* 3rd edition, folio. pp. 63, 64, 111. The Thorn Apple, Stramonium, a plant of the same family as the Datura, produces similar effects ; it has sometimes been criminally employed in Europe.

† *Voyage of Francis Pyrard.* (2 vols. in-4°. Paris 1679). tome II. p. 68—69.

‡ Francis Martin. *Description of the first Voyage made by the French to the East Indies.* p. 163—164.

the Thaumaturgists to whom it was much more important. Among the aborigines of Virginia, the aspirant to the priesthood was made to drink, during the course of his painful initiation, a liquor* which threw him into a state of imbecility. If, as we may suppose, the object of this practise was to render him docile, we may believe also, that the custom did not commence in the New World.† Magicians have, in all ages, made use of similar secrets.

The Oriental tales frequently present to us stories of powerful magicians changing men into animals. Varro, quoted by St. Augustine,‡ relates that the magicians of Italy, attracting near them the unsuspecting traveller, administered to him, in cheese, a drug which changed him into a beast of burthen. They loaded him then with their baggage, and at the end of the journey restored him to his own form. Under these figurative expressions, quoted from Varro, who probably quoted from some prior work, we perceive that the traveller being intoxicated by the drug he had taken, blindly submitted himself to this singular degradation until the magician released him by giving him an appropriate antidote. This tradition has no doubt the same origin as that of Circé.‖

* This liquor was procured by decoction from certain roots called *Vissocan ;* and the initiation was termed *Husea nawar*.

† In consulting most of the Grecian oracles, it was the custom either for the officiating priest, or the consulting person, to drink of some secret well, the water of which most probably contained some narcotic infusion.—Ed.

‡ S. August. *De civit. Dei.* lib. xviii. cap. xvii. xviii.

‖ This does not contradict the assertion of Solinus, that Circé

Wearied by the amorous pursuit of Calchus, King of the Daunians, Circé, if we may believe Parthenius, invited him to a banquet, in all the viands of which she had infused narcotic drugs. Hardly had he eaten of them, when he fell into such imbecility that Circé shut him up with the swine. She afterwards cured him, and restored him to the Daunians, binding them, however, by a vow, never to allow him to return to the island she inhabited.

The cup of Circé, says Homer, contained a poison that transformed men into beasts; implying that, when plunged by it into a state of stupid inebriety, they believed themselves reduced to this shameful degradation. This explanation, the only one admissible, agrees with the relation of Parthenius. In spite of the decision of some commentators, I venture to affirm, that the poet did not intend this narration as an allegorical lesson against voluptuousness. Such an explanation would not accord with the rest of the narrative, which terminates by the wise Ulysses throwing himself into the arms of the enchantress, who kept him there a whole year. In many other passages, also, of his poems, Homer has noticed purely physical facts. This is so true that he mentions a natural preservative against the effect of poison; a root which he describes with that minuteness, which, better than any other poet, he knew how to unite with the brilliancy of poetry and the elegance of versification.

Neither can we take, in a figurative sense, the account

deceived the eyes by phantasmagorial illusions. She might make use of these to strengthen the established belief, that the drugs which rendered men imbecile, metamorphosed them into beasts.

given by the prince of poets, respecting the Nepenthes which, bestowed by Helen on Telemachus, had the effect of suspending all feelings of grief in the heart of the hero.* Whatever might have been the substance thus designated, it is certain that in Homer's time, there was a belief in the existence of certain liquors, which were not less stupifying than wine, and more efficacious than the juice of the grape, in dif-

* Many opinions have been advanced respecting Nepenthes; but the most probable is, that which refers it to the hemp, *Caunabis satira*, from which the Hindoos make their bang, which is narcotic, and produces delightful dreams.

The native plant, after it has flowered, is dried, and sold in the bazaars of Calcutta for smoking, under the name *Ganjah*. The large leaves and capsules employed also for smoking, are called *Bang* or *Subjee*. In both of these forms the smoking of the Hemp causes a species of intoxication of a most agreeable description, and consequently the plant has acquired many epithets, which may be translated "assuager of sorrow," "increaser of pleasure," "cementer of friendship," "laughter-mover;" and several others of the same description.

In Nepaul, the resin only is used, under the name of *Churrus*. It is collected in some places by naked coolies walking through the fields of hemp at the time when the plant exudes the resin, which sticks to their skin, from which it is scraped off, and kneaded into balls. In whatever manner it is collected, when it is taken in doses of from a grain to two grains, it causes not only the most delightful delirium; but, when repeated, it is followed by catalepsy, or that condition of insensibility to all external impressions which enables the body to be, as it were, moulded into any position, like a Dutch jointed doll, in which the limbs remain in the position in which they are placed, however contrary to the natural influence of gravity; and this state will continue for many hours. Such an instrument could not fail to prove a most powerful agent in working apparent miracles in the hands of a Thaumaturgist.—Ed.

fusing a delicious calm over the mind. It is probable that Homer was acquainted with these beverages, and those also that Circé poured out for her guests; either from having witnessed the exhibition of their effects, or from tradition only; it always appears from his narrative, that the ancients possessed the means of making them. Wherefore should we, then, doubt, that such a secret was practised in the temples, whence the Greek poet derived the greatest part of his knowledge; and where all the secrets of experimental philosophy were concentrated.

Roman and Greek historians, and also modern naturalists, in speaking of the properties of different beverages, mention facts, which prove that they were known to the ancient Thaumaturgist, and that their powers have not been exaggerated.

A. Laguna, in his Commentary on Dioscorides, mentions a species of *Solanum*, the root of which taken in wine, in a dose of a drachm weight, fills the imagination with the most delicious illusions. It is well known that Opium, when administered in certain quantities, produces sleep accompanied with dreams so distinct and so agreeable that no reality can equal the charm of them.* In

* The magical influence of opium is well described, allowing for some degree of exaggeration in M. de Quincy's extraordinary work entitled *The Confessions of an English Opium Eater*, to which the editor refers the reader. It is necessary to mention here only a few facts descriptive of its influence on the inhabitants of Turkey and India.

In the Teriakana, or opium shops of Constantinople, and throughout the Ottoman empire, opium is usually mixed with aromatics, and made into small cakes or lozenges, which are

recapitulating all the speculations that have been made respecting Nepenthes, M. Virey supposes that he has discovered it to be the Hyosciamus *Datura* of Forskhal,* which is still employed for the same purpose in Egypt, and throughout the East. Many other substances, capa-

stamped with the words "*Mash Allah,*"—gift of God. After a certain number of these have been swallowed, the first effect is a degree of vivacity, which is even followed by delirium and hallucinations, that vary in their character, according to the natural disposition of the individual. Is the opium-eater ambitious, he beholds his sublime ideas realized, monarchs at his feet, and slaves in chains following his triumphant chariot. Is he timid, he feels himself either endowed with courage to which he is naturally a stranger, or scenes of horror and dismay arise before him; the brain of the lover heaves with tenderness and rapture; that of the vindictive man swells with a ferocious delight, in feeling his victim within his power, and his dagger already in his heart. High-flown compliments are uttered, and the most ridiculous actions performed, until sleep overpowers the senses, and leaves the person on awaking pensive, melancholy, and exhausted, until recourse is again had to the regular daily supply.

In China, Siam, Bornea, and Sumatra, opium prepared in a peculiar manner, and called *Chandoo*, is both eaten and smoked with nearly the same effects as the Turks experience; but it renders the Malays almost frantic. When misfortune, therefore, or a desire of desperate revenge influences a Malay, he makes himself delirious with opium; then sallies forth armed, and running forward calling out "Amok! amok!" he attempts to stab, indiscriminately, every one he meets, until he himself is killed for the preservation of others.

Such is the apparent supernatural felicity in some, and the demoniacal frenzy and wretchedness in others, which the juice of the poppy occasions; and there can be little doubt that it was administered in some form to the aspirants during their initiation into the mysteries of Polytheism.—Ed.

* *Bulletin de Pharmacie.* tome v. (Février, 1813,) p. 49 and 60.

ble of producing effects not less marvellous, are mentioned by the same learned person.

The Potamantis, or Thalasseglé, says Pliny,* grows on the banks of the Indus, and Gelatophyllis near to Bactria. The juices extracted from both these plants produce delirium; the one causing extraordinary visions, the other exciting continual laughter. The one acts in a similar manner as the beverage made with the Hyosciamus of Forskhal; the other like that expressed from the seeds of the Datura † Other compositions concealed virtues still more useful to the workers of miracles.

In Ethiopia, says Diodorus,‡ was a square lake of a hundred and sixty feet in circumference and forty feet broad, the waters of which were of the colour of vermillion, and exhaled an agreeable odour. Those who drank these waters became so delirious, that they confessed all their crimes, and even those that time had permitted them to forget. Ktesias‖ mentions a fountain in India, the waters of which became, when newly drawn, like cheese. This coagulum when dissolved in water possessed virtues like those mentioned by Diodorus. In the first example the name of lake, particularly after the dimensions specified, reminds us of the sea of brass in the Temple of Jerusalem, which signified

* Plin. *Hist. Nat.* lib. XXIV. cap. XVII.

† All the Daturas are narcotic; but, from its native place, that species mentioned by Pliny under the name *Gelatophyllis*, was either Datura *ferox* or Datura *metel*.—ED.

‡ Diod. *Sic.* lib. II. cap. XII. p. 12.

‖ Ktesias. *Indic. apud. Photium. Biblioth.* cod. LXXII.

only a large basin hollowed by the hand of man,* such as is seen in every village of Hindostan.† The word fountain as employed by Ktesias is equally applied to the spring whence water flows, and to a reservoir from which water is drawn. When we reflect on the colour and scent of the water contained in the Lake of Ethiopia; the property of the Indian liquid of coagulating like cheese; and call to remembrance also the fluid drugs employed by the magicians of Egypt; do they not all announce pharmaceutical preparations?

Democritus had, before Ktesias and Diodorus, mentioned plants that were endowed with such virtues, that they caused the guilty to confess what the most rigorous tortures would not have constrained them to avow. According to Pliny,‡ there is an Indian plant called *Achæmenis*, the root of which, when made into lozenges, and swallowed in wine during the day, torments the guilty all night. They suppose that they are pursued by the Gods, who appear to them under many forms; and they confess their crimes. The juice of the *Ophiusa*, a plant of Ethiopia, when taken internally, creates a belief of being attacked by serpents: the terror that it produces is so violent, that it leads to

* Lacus, in Latin, often takes the same signification. Pliny applies this name to the basin of a fountain situated near Mandurium, in the country of Salente. Vitruvius also applies it to a basin prepared for receiving lime.

† Some of these basins (tanks) are more than 23,239 yards in circumference. Haafner. *Travels in the Western Peninsula of India, &c. passim*, tome II. p. 299.

‡ Plin. *Hist. Nat.* lib. XXIV. cap. XVII.

suicide; therefore the sacrilegious were compelled to drink this liquor.

These wonders seem fabulous: they may be repeated, however, every day under the eye of the observer. The extract of Belladonna is given to children affected with the hooping-cough: if the quantity exceeds ever so little the proper dose, this remedy occasions the most painful dreams that fill the little patients with fear. In Kamtschatka they distil from a sweet herb,* "a spirit which easily intoxicates in a very violent manner. Those who drink it, although even in very small quantities, yet are tormented during the night with fearful dreams; and the following day they are afflicted by inquietudes and agitations as great as if they had committed some crime."

The *muchamore* is a fungus common to Kamtschatka and Siberia.† If it be eaten dry, or infused in liquor and drunk, it sometimes produces death, and always profound delirium, which is sometimes gay, sometimes full of sorrow and fear. Those who partake of it believe themselves subject to the irresistible power of the spirit that inhabits the poisonous fungus. In a fit of this stupor, a Cossack imagined that the spirit ordered him to confess his sins; he made, therefore, a general confession before all his comrades.‡

* *Pastinaca. Gmelin.*

† Krachenninikof. *Description du Kamtschatka*, 1st part, chap. XIV. Beniowski relates that a Siberian Schaman whom he consulted, made use of an infusion of *muchamore*; the beverage first plunged him into raving delirium, and then into deep sleep.

‡ The Muchamore, the plant here referred to, is the Fly Amanita, Amanita *Muscaria*, found in Kamtschatka, and also abun-

Other beverages have a different influence, but are equally capable of creating the marvellous. The Caliph Abdallah, son of Zobeir, when besieged in Mecca, decided on making a sally, and thus finding either deliverance or death. He received from the hands of his mother a beverage containing musk,* to sustain his courage; and he only yielded after prodigies of valour, which made the victory, for a long time, uncertain.† When the Turks go to battle, a strong drink, named *maslach*, mixed with opium, is distributed among the soldiers, and excites and renders them almost

dantly in the Highlands of Scotland, and in woods in England in the autumn. It is a beautiful plant, rising like a mushroom upon a white stalk four to eight inches high, bulbous at the base; the pileus, or top, is from three to six inches broad, of an orange-brown colour, with white warty spots regularly scattered over its surface. It is the most splendid of the Agaricoid tribe. "In the Highlands of Scotland," says Dr. Greville (*Scottish Cryptogamic Flora*, vol i. p. 54,) "it is impossible not to admire it, as seen in long perspective between the trunks of the straight fir-trees; and should a sunbeam penetrate through the dark and dense foliage, and rest on its vivid surface, an effect is produced by this chief of a humble race which might lower the pride of many a patrician vegetable." It is always deleterious, and often fatal when eaten. In Kamtschatka its juice, mixed with that of the Great Bilberry, or the runners of the *Willow Herb*, is drank to cause intoxication. It acts most powerfully when dried and swallowed after mastication: it then causes delirium, and occasionally convulsions. —Ed.

* Musk is a powerful stimulant; it raises the pulse without elevating the heat of the body; and increases, in a remarkable degree, the energy of the brain and nerves.—Ed.

† Hegira, 73; Ockley. *Histoire des Sarrasins*, tom. ii. p. 4—5.

frantic.* The intoxication produced by the *much-amore* often brings on an increase of strength, inspires fearless boldness, and excites a desire of committing criminal actions, which are then regarded as imperiously inspired by the Spirit of the Muchamore. The savage inhabitant of Kamtschatka, and the fierce Cossacks, have recourse to this intoxication to dissipate their fears when they project assassinations.†

The extract of hemp, mixed with opium, has, even in the eighteenth century, been used in the armies of the Hindoo Princes, by the Ammoqui, fanatic warriors, whom it makes fiercely delirious. They dart off, striking without distinction every thing they meet before them, until, overwhelmed with blows, they fall on the bodies of their victims.‡ Neither fear nor humanity arrests their course of crime. Those fanatics, also, who have been named Assassins, were intoxicated by a preparation of hemp, called *Hashiché*, given to them by the Old Man of the Mountain.‖

All the historians of the Crusades have spoken of the enchanted abode of the Old Man of the Mountain,§ who

* *Considérations sur la Guerre présente entre les Russes et les Turcs.* 1769—173.

† Krachenninikof. *Description du Kamtschatka.* part 1, chap. XIV.

‡ Paulin de St. Barthélemi. *Voyage aux Indes Orientales,* tome II. p. 426—427.

‖ J. Hammer. *Mines of the East. Nouvelles Annales des Voyages,* tome XXV. p. 337—378.

§ This is an absurd translation of the title of Seydna, and Sheikh-al-Jebal, literally, *Elder Mountain Chief,* which was assumed by Hassan Saba, a Chief of a sect of Eastern Ismailites, who made himself master of Alamoot, one of the strong hill for-

gave to his credulous neophytes such a foretaste of Paradise, that the hope of one day returning to this place of

tresses which cover the mountainous region that divides Persian Irak and the northerly provinces of Dilem and Taberistan. The followers of Hassan were bound to the most rigid obedience to the precepts of Islam, or Abdallah Maimom, the projector of the sect. It is unnecessary here to describe the rules which were requisite to be practised by the aspirants, proselytes to the faith of the society. Assassination was an obligation on the Ismailite Fedavee, one of the divisions of the sect; any one of whom, ordered by a superior to assassinate a stranger, was obliged to obey; and, in the performance of the order, the wretched Fedavee firmly believed he was promoting the cause of truth. It has been supposed that the name *Assassins*, given to the society, originated in this obligation; but the appellation is derived, according to M. De Sacy, from the Oriental term *Hashisheen*, corrupted by the Crusaders into Assassin. This term implies takers of Hashiché, a species of hemp, from which an intoxicating drug was compounded, which the Fedavee took previously to their engaging in their daring enterprises; and which procured for them the delicious visions of Paradise, promised to all the followers of the Sheikh-el-Jebal. This Paradise was typified on earth, according to Marco Paulo, who travelled over the East in the thirteenth century, by gardens of the most luxurious description, stored with the most delicious fruit and flagrant flowers and shrubs, and containing palaces inhabited by exquisitely beautiful and highly-accomplished damsels, clothed in the richest dresses, and education to display every grace and fascination that could captivate the senses.

The Chief, in discoursing of Paradise to his followers, persuaded them that he had the power of granting admission to it; and to prove the truth of his assertion, he caused a potion of a soporific kind to be administered to ten or twelve of them at a time, and when they were sound asleep, he had them conveyed to the palaces in the garden. On awaking from their sleep, their senses were struck with the beauty and splendour of every object upon which their eyes rested; their ears were ravished with the most harmonious voices; and their fond glances at the lovely damsels were returned with the most allur-

delights, made them consent to the commission of every crime, brave the most cruel tortures, and undaunted

ing caresses; until, truly intoxicated with the excess of enjoyment, they believed themselves actually in Paradise. After a time they were again thrown into sleep, and carried out of the garden. They were questioned before the whole Court as to where they had been, and what they had seen; and having detailed all the pleasures they enjoyed, the Chief assured them that those who yielded implicit obedience to him should inherit such a Paradise for ever.

The effects of such an imposture display, most strikingly, the lengths to which credulity and superstition will conduct mortals. The following anecdote powerfully elucidates this remark. "An Ambassador from the Sultan Malek Schah having come to Alamoot to demand submission and obedience of the Sheikh, Hassan received him in a hall in which he had assembled several of his followers. Making a sign to one youth, he said, 'Kill thyself!' Instantly the young man's dagger was plunged into his own bosom. To another he said, 'Fling yourself down from the wall!' In an instant his shattered limbs were lying in the castle ditch. Then turning to the terrific envoy, he exclaimed—'I have seventy thousand followers who obey me after this fashion. This is my answer to your master!'"[a] These victims died in the full conviction that they were immediately to pass into that sensual Paradise, of which they had received a foretaste in the gardens of the Sheikh.

It is out of place to trace here the history of a people whose chief object was evil; and who, for Providence provides retribution for crime even in this world, have ceased to live politically for nearly six centuries. The sect still exists in Persia, and scattered over great part of Asia. They regard their Imam as an incarnate ray of the Divinity; they hold him in the highest veneration; and they make pilgrimages from the most distant places to the village of Khekh, in the district of Koom, where he resides, to obtain his blessing.—Ed.

[a] Marinus Sanatus, l. iii. *Secret Societies, Library of Entertaining Knowledge*. p. 81.

meet certain death. At a much earlier period, Shedad-ben-ad, King of Arabia, desiring to be worshipped as a God, collected in a garden, the name of which was proverbial in the East, all the delights of Paradise; and allowed them to be enjoyed by the faithful whom he deigned to admit into it.* In both cases, we think that these gardens of pleasure only existed in dreams, caused among young men, habituated to a simple and austere diet by the use of potions to which they were unaccustomed, and which exalted their weak reasons, and filled their heated imaginations.† Under the name of *Bendjé*, a preparation of *Hyosciamus* (henbane),‡ the same plant, no doubt, as the *Hyosciamus datura*, served to intoxicate them so completely, that they believed themselves in Paradise, of which glowing descriptions had been previously given to them; they experienced also a violent desire to be transported to it, even through death; whilst, in order to incite them to some desperate act, the hashiché, or extract of hemp, was administered to them; and is still employed in the East for the same purpose.

The real existence of the gardens of the Old Man of the Mountains has, nevertheless, been acknowledged by

* D'Herbelot. *Bibliothèque Orientale*. art. Iram.

† The foregoing note has proved that the opinion of this author is erroneous as far as regards the followers of Hassan Sabah.—Ed.

‡ M. J. Hammer (loc. cit.) appears to think that the *Bendjé* was the same thing as the *hashiché*; but in a fragment of an Arabian romance, for the translation of which we are indebted to him, it is positively stated that the *bendjé* was a preparation of Henbane. p. 380.

I am disposed to differ from the opinion of our author respecting Bendjé, which I have been informed is a preparation of Hemp, Cannabis *Indica*.—Ed.

enlightened men.* In opposition to them, however, we may be permitted to mention the basis upon which we had established our opinion to the contrary,† even before it acquired another degree of probability by the assent of M. Virey.‡ This is no deviation from our subject; the wonders employed for operating upon the credulity of men by beings who pretended to be endowed with supernatural powers form a part of our inquiry.

The Old Man of the Mountain, whose history is obscured by so many fables, surrounded himself by a troop of fanatics, ready to dare every thing at his first signal. It is said, that their unbounded devotion was produced by a narcotic, during the effect of which they were transported into the most delicious gardens, where, when they awoke, every luxury was collected to make them believe, that for some hours they tasted the pleasures of Heaven. The exactitude of this recital may be questioned. How many indiscretions might every day compromise the existence of a fictitious Paradise? How would it be possible to assemble and bind to inviolable secrecy so many agents, exempted from the fanaticism which their artifices produced in others, and who, not regarding silence as a duty, would, on the contrary, doubt

* MM. Malthe-Brun et J. Hammer. *Mines de l'Orient. Nouvelles Annales des Voyages,* tome xxv. p. 376—382.

† *Bulletin de Pharmacie,* tome v. p. 55—66 (Février, 1812.)

‡ Eusèbe Salverte. *Des Rapports de la Médecine avec la Politique* (in-12. 1806.) We transcribe this passage, with the corrections that have been prepared for another edition. The whole work was read in 1804 to the *Société Médicale d'Emulation de Paris.*

the blind obedience which they laboured to inspire, since, at the least caprice of the tyrant, they might become the first victims of it? The slaves of both sexes, who figured before the initiated as angels and houris, could not be supposed to prove always discreet. What would become of them, at last, when the progress of years did not permit them to appear in the same parts? Death alone could insure future silence; and would not the prospect of such a reward untie their tongues on the first favourable occasion, or lead them to kill their tormentor when, wandering alone among them, he came to confirm the neophyte in his false persuasion? How, also, would this tribe of actors support themselves? Could their master every day administer to their wants without its being perceptible abroad? In addition, the number of precautions to be taken,—the provisions to be renewed,—the frequent necessity of getting rid of these agents, from whose indiscretion there was every thing to be feared,—are all difficulties in the way of our belief in this abominable mystery, much less that it could be maintained for even three years.

"Besides, it is certain that bodily enjoyments, with whatever ingenuity they may be varied or arrested, have intervals too marked—contrasts too sensible of void and reality—to permit the creation, or the long endurance, of such an illusion. How much more simply is every thing explained, by ascribing the illusions to physical intoxication, combined with the intoxication of the soul! Among credulous men, previously prepared by the most flattering pictures of Paradise, and promises of future felicity, the

narcotic potion would easily produce the most pleasurable and desirable sensations, and the magical continuation of them would render them doubly valuable. 'To speak plainly, they can only be regarded as a vision,' says Pasquier,* who, after having examined every thing related by cotemporary authors on the subject of the Assassins, arrives at that conclusion. Ask a man, in whom a dose of opium has lulled an excruciating pain, to display a picture of the enchanting illusions which he experienced, and the state of ecstacy into which he was plunged for more than twenty-four hours, and they will be found exactly those of the supernatural delights heaped by the chief of the Assassins upon his future Seïdes. We know with what avidity the Easterns, who are accustomed to take opium, give themselves up to its delights, in spite of the ever-growing infirmities which it heaps upon their wretched existence. This eagerness may afford some idea of the pleasures that accompany this species of intoxication, and enable us to comprehend that uncontrollable desire which may urge an ignorant and superstitious youth to dare every thing in order to possess, for eternity, such ineffable delights."

The remembrance of the devotion of the disciples of the Old Man of the Mountain to their master, is naturally united to that of the constancy with which they endured the most cruel tortures. The intoxication of fanaticism would arm them with this invincible constancy: the noble pride of courage, the obstinacy even of a trifling point of honour, would often be sufficient to

* E. Pasquier. *Les Recherches de la France.* liv. VIII. chap. XX. (2 vols. in-fol.) Amsterdam, 1723. tome I. p. 798.

inspire it. It was, however, much too important to their chief, to be certain that none of them should fail him; to allow him to rely solely on the power of the recollection of the delights that they experienced; especially when time and distance might reasonably be supposed to weaken their influence. If he was acquainted with the means of allaying bodily feelings, he doubtless took care, also, to provide for the ministers of his vengeance the same means, in order that they might employ it in a critical moment. The promise of sustaining his followers when under the empire of pain, exalted still more their fanaticism; and the accomplishment of this promise became a new miracle; an additional proof of the certain power of him they regarded as the governor of nature. In advancing this conjecture, we must acknowledge that we cannot support it by any historical proofs.* But is it likely that the Thaumaturgists

* The reasoning of our author is ingenious and very plausible; but it is not sufficient to overthrow the testimony of Marco Palo, Hanmer, and others respecting the existence of the gardens of the Ismailite Chief at Alamoot. What, we may ask, would the followers of the Sheikh-al-Jebal, to whom were entrusted his secrets, not suffer rather than divulge them, when we see them laying down their lives in his service every time that he demanded the sacrifice? These were not acts of obligation, but of a persuasion that obedience to their Chief was to gain them eternal felicity in Paradise after death. Besides, the pains that are taken by all Oriental nations, to confirm the truth of their creeds, cannot be denied; and the secrecy in which their impostures are veiled and preserved is almost incredible. Thus, in a late communication made to the Royal Asiatic Society, by Sir Claude Wade, on the geography of the Punjab, we are informed that, in a small but deep lake seven coss from Soohait, named Rawalsir, are seven floating

would be unacquainted with a secret known to all antiquity, and especially in Palestine? The Rabbins* inform us, that a drink of wine and strong liquors was given to the unhappy ones condemned to death; and powders were mixed in the liquor, in order to render it stronger, and to deaden the senses. The object of this custom was, no doubt, to reconcile with humanity the intention of exciting alarm by the sight of executions. In the second century of our era, it is related by Apuleius, that a man fortified himself against the violence of blows by a potion containing myrrh.† If, as we think, myrrh could only be drunk in the form of a tincture, the effect of the alcohol must have increased the efficacy of the stupifying drug. We observe everywhere, that this property attributed to the myrrh, is not among those for which it is employed in the present day as a medicine. The name

islands, which are objects of worship to Hindoo pilgrims. These votaries proceed to the shores of the lake, address the islands, and present their offerings; upon which, it is stated, the islands approach the shores, receive the offerings upon their surface, and then retire. "As this tale," adds Sir Claude, "is invariably accredited among the natives, it is not improbable that artificial means are taken to cause the islands to traverse the yielding surface."[a] What the nature of this cause is, however, remains an inviolable secret; although many persons must be employed in working it, and successive changes of workmen must be required. This fact, therefore, gives the colouring of truth to all that has been related respecting the gardens at Alamoot.—Ed.

* *Tract. Sanhedr.* D. Calmet. *Commentaire sur le Livre des Proverbes*, chap. xxxi. verse 6.

† *Evang. sec. Marc.* cap. xv. verse 25.

[a] *Literary Gazette*, n. 1524. p. 317.

of myrrh, however, might serve to disguise a preparation, the ingredients of which were intended to be kept secret. But in either case, the Old Man of the Mountain could not certainly have been ignorant of a secret which had for so long a time prevailed in Palestine, and which he might also have borrowed from Egypt. The stone of Memphis (*lapis memphiticus*) was a round body, sparkling, and about the size of a small pebble; it was regarded as a natural body. I consider it to have been a work of art. It was ground into powder and laid as an ointment on the parts to which the surgeon was about to apply the knife or the fire.* It preserved the person, without danger, from the pains of the operation; if taken in a mixture of wine and water, it deadened all feelings of suffering.†

A similar secret has existed in all ages in Hindostan. It is probably by such means that the widows‡ are preserved from shrinking from the dread of the blazing pile upon which they place themselves with the dead bodies of their husbands. The eye-witness of one of these sacrifices, that took place in July 1822, saw the victim arrive in a complete state of bodily insensibility, the effect no doubt of the drugs which had been administered to her. Her eyes were open, but she did not appear to see; and, in a weak voice, and as if mechanically, she answered the legal questions that were put to her regarding the full liberty of her sacrifice. When she was laid on the

* *Dioscorid.* lib. v. cap. CLVIII.

† Plin. *Hist. Nat.* lib. XXXVIII. cap. VII.

‡ Le P. Paulin de St. Barthélemi. *Voyage aux Indes Orientales.* tome I. p. 358.

pile, she was absolutely insensible.* The Christians carried this secret from the east into Europe, on the return of the Crusaders. It was probably known to

* *The Asiatic Journal*, vol. xv. 1823. p. 292—293. The custom of drugging the Indian widows previous to gaining their consent to this monstrous concremation, is stated to be not unusual, when their relations have any advantage to gain by their decease; but as many of those who submit to it are of the lower order of women, vanity, and the force of a prevailing superstition, are the chief inducements. There can be no doubt that this, one of the dominant passions of the sex, frequently impels them to the sacrifice: for women who commit this suicide are canonized after death, and crowds of votaries frequent their shrines, to implore their protection, and to pray for their aid and deliverance from evil.

When this self-sacrifice is by concremation, it is termed *Sahamarana;* but occasionally, although rarely, it is performed when the husband is at a distance; it is then solitary, or *Anamarana*. The name given to these immolations, by the English in India, is *Suttee*, a corruption of the word *Sati*, or *pure*, the appellation bestowed not upon the sacrifice, but upon the female after she has been purified by the fire. The woman is not, say the Brahmans, destroyed, but only *consumed*; not annihilated, but merely *changed*. The tradition of the origin of the custom relates, that the father-in-law of Siva having omitted to invite her to a wedding, his wife Paravati felt so offended at this neglect, that in the paroxysm of her rage she flung herself into the fire, and was consumed. She thence became *Sati*, (*transcendent purity*), which is also one of her names.

These shameful immolations have been attempted to be put down by the Indian Government, but ineffectually; and, so late as 1825, the number in one year amounted to one hundred and four. When once a woman declares her intention of submitting to concremation with the dead body of her husband, she cannot revoke. The interest of the whole community is at stake as well as her own character; for if she refuse, it is a prevailing belief that the whole country would be visited with some awful calamity. Every

the subaltern magicians, as well as that of braving the action of fire, from which I imagine arose the rule of jurisprudence according to which physical insensibility,

effort is therefore employed to inspire her with sacred heroism, and to exalt her imagination to the highest pitch that fanaticism and superstition can impart; and when these are likely to fail, she is rendered nearly insensible by some narcotic beverage. The sacrifice is preceded by a procession, in which the wretched victim appears decorated with jewels and flowers of the Tulse, or holy Ocymum plant (Ocymum *sanctum, Lin.*) is borne on a rich palanquin, following a kind of triumphal car, on which the dead body of her husband is seated, also decorated with jewels and costly vestments. When the procession has reached the pile, and the dead body has been laid upon it, the widow is bathed without removing her clothes and jewels, and then re-conducted to the pile, around which she is walked three times, supported by some of her nearest relations. These ceremonies being concluded, she is cast upon the dead body of her husband; and gee, a species of semi-fluid butter, being poured upon the dry wood, it is instantly fired, and she quickly dies of suffocation before the fire reaches her body.

In examining the accounts of the composure and almost philosophical indifference with which these women sacrifice their lives to the prevailing superstition, there is no necessity for believing that it is the sole result of the narcotics administered to them. Woman, in every country and in every age, displays more the character of the sincere devotee than man. Convinced of the truth of the doctrine she embraces, it absorbs her whole mind. her contemplation rests firmly upon it; and when an hour of trial arrives, she reposes upon its promises in undisturbed tranquillity: all the ties of relationship and of country are forgotten; every act of memory and consciousness is suppressed; and under the circumstances, such as have been described as taking place in these concremations, her whole mind turned upon the beatitude she is about to attain, the frailties of our nature are surmounted, and the mortal seems almost already invested with supernatural powers. To the operation of this state of mind, in the opinion of the writer of this note, may we attribute some, at least, of the extraordinary displays of heroism occasionally exhibited in these self-immolations.—Ed.

whether partial or general, was a certain sign of sorcery. Many authors quoted by Fromann,* speak of the unhappy sorcerers who have laughed or slept through the agonies of torture; and they have not failed to add that they were sent to sleep by the power of the devil.

It is also said that the same advantage was enjoyed by pretended sorcerers about the middle of the fifteenth century. Nicholas Eymeric, Grand Inquisitor of Arragon, author of the famous *Directoire des Inquisiteurs*, loudly complained of the sorceries practised by accused persons, through the aid of which, when put to the torture, they appeared absolutely insensible.† Fr. Pegna, who wrote a commentary on Eymeric's work, in 1578, believed also the reality and efficacy of the sorceries.‡ He strengthens himself by the evidence of the inquisitor Grillandus, and Hippolytus de Marsilies. The latter, who was Professor of Jurisprudence at Bologna in 1524, positively declares, in his 'Pratique Criminelle,' that he has seen the effect of the philters upon the accused persons, who suffered no pain, but appeared to be asleep in the midst of the tortures. The expressions he makes use of are remarkable; they describe the insensible man, as if plunged into a torpor more like the effect produced by an opiate, than the proud bearing which is the result of a perseverance superior to every pain.

To many instances of this temporary insensibility,

* Fromann. *Tract. de Fasc. &c.* pp. 593, 594, and 810, 811.

† *Aliqui sunt maleficiati et in quæstionibus malefictis utuntur—efficiuntur enim insensibles.—Direct. Inquisit.* Cum adnot. Fr. Pegnæ. (Romæ. folio) part III. p. 481.

‡ *Direct. Inquis.* &c. p. 483.

Weirus adds an important observation; he saw a woman thus inaccessible to the power of torture, her face was black, and her eyes were starting out as if she had been strangled; her exemption from suffering was due to a species of apoplexy.* A physician† who witnessed a similar state of insensibility, compares it to fits, epileptic or apoplectic.

A humurous writer, a cotemporary of Francis Pegna, and of J. Wierius, whose name inspires us with little confidence, but who, on this occasion, speaks of what he had seen, and whose place in a tribunal enabled him to know with certainty what occurred,‡ has also described, with Taboureau, the soporific state which preserved the accused from the sufferings of torture. According to him it was almost useless to put the question. All the jailors were acquainted with the stupifying recipe, and they did not fail to communicate it to the prisoners; nothing could be easier than to practise it elsewhere, if confidence was reposed in its influence. The secret consisted in swallowing soap dissolved in water.

Common soap does not, certainly, possess the virtues ascribed to it by Taboureau: but does it therefore follow that the principal incident, namely the administration of some potion, is false. I consider it does not; for this author is not the only person who has stated this fact.

* J. Wierius. *De Præstig.* lib. iv. cap. x. p. 520, *et seq.*

† Fromann. *Tract. de Fasc.* p. 810, 811.

‡ Et. Taboureau. *Des faux sorciers et leurs impostures* (1585). Discourse inserted in the fourth book of the *Bigarrures du Sieur des Accords.* Et. Taboureau was the King's Counsel at the bailiwick of Dijon.

On this occasion only, did the possessors of the secret impose on mankind, less to insure to themselves the exclusive possession of it, than to preserve the power of employing it. This becomes credible, if there are substances capable of realizing it; and how many may we not number that stupify, that suspend, and destroy nervous sensibility. *Opium*, *Henbane*, *Belladonna*, *Aconite*, *Solanum*, *Stramonium*, have been used to deaden pain in surgical operations; and if they are not now so much prescribed, it is because the stupor they induce endangers the cure, and sometimes the life of the patient. Such a fear would not, however, prevent them from being used by the Brahmans, who conducted the Hindoo widows to the funereal piles of their husbands. It had, however, we perceive, little hold on the disciples of the Old Man of the Mountain, or on the accused who were menaced with torture. Among the substances mentioned, we may distinguish some that were no doubt made use of by the eastern Thaumaturgist; and others so common in Europe, that they might easily have been furnished, as Taboureau states, to the prisoners by the jailers when they were required.

Such there are, and from the number of these substances, and the facility of procuring them, we may be permitted to suppose that, known in all ages, they have been, at all times, employed to work apparent miracles. It is not the moderns alone who have witnessed the atrocious cruelties, almost above human strength to bear, which before the eyes of a whole nation have been endured by the Hindoo penitents;—the histo-

rians of Greece and Rome have spoken of them;* and national traditions state their practise to have existed from the commencement of religious civilization. The patience of man in submitting to them, most probably, has resulted from the cause we have pointed out, namely, the actual use of stupifying drugs: they repeat it often, and this practice, thus prolonged, ends in a perpetual torpor, and renders these fanatics capable of supporting tortures that last their life time. The almost entire destruction of bodily feeling cannot be effected without injuring the mind, and plunging the soul into complete imbecility;—which is in fact the ruling feature of nearly all these miraculous penitents.

It is also in this state of imbecility that Diodorus represents the Ethiopian savages, whom he describes as being quite insensible to blows, wounds, and the most extraordinary tortures.† A learned man of the seventeenth century,‡ supposes that the traveller Simmias, from whom Diodorus copied his narration, had taken as the general character of a nation the temporary state of some individuals intoxicated by a potion similar to the Nepenthes which Homer mentions. It is more probable that Simmias‖ met, on the shores of Ethiopia, penitents such as those that exist at the present day in Hindostan;

* *Solinus*, cap. LV.

† *Diod. Sicul.* lib. III. cap. VIII.

‡ Pierre Petit. D. M. *Dissertation sur le Népenthès*, 8vo. Utrecht.

‖ Simmias was a philosopher of Thebes, but neither he nor Diodorus is high authority: both were extremely credulous; and both equally ambitious of recording wonders.—ED.

and the state in which he saw them had become permanent by the continual use of drugs competent to produce it.*

* Hasselquist (*Voyage dans le Levant*, 1st part, p. 257), observes, that opium habitually taken in excess by the dervises, conduces to complete stupidity.

The torments which the *Yogis*, or Indian penitents, impose upon themselves, are not borne by the individual becoming insensible through the influence of stupifying drugs, but they are truly the result, either of an ambition to become worthy of eternal bliss, or a slavish obedience to vanity, that they may enjoy in this world the respect of the noble and the great, and the admiration of the unthinking multitude. A Yogis will stand in a certain position for years; sometimes with his hands above his head, until the arms wither, and become incapable of action; others keep the hands closed until the nails pierce through their palms; some double themselves up like a hedgehog, and thus are rolled along from the Indus to the banks of the Ganges; or suspend themselves by the heels over the fiercest fires, or sit in the centre of many fires, throwing combustibles into them to increase the flames. These, and a thousand other tortures which they brave, are not all the result of trick, aided by stupifying drugs, as our author asserts, but the effects of an absurd, superstitious credulity, that those acts are to gain for them eternal felicity. That many of them are sincere, is demonstrated in their belief that even tigers will respect them; will come voluntarily to them; and lie down, and fondle and lick their hands; a belief which sometimes costs them their lives. Upon what other plea can we account for the suicides that are perpetrated at the temple of Juggernaut, and at the sacred spot where the Ganges and the Jumna mingle their waters; and the disgusting abominations that nothing but a sincere belief in their efficacy could have admitted into several of their religious ceremonies. That many penitents perish by tigers every year; but nevertheless that numbers of these penitents are imposters, there is little doubt. Their putting to death and resuscitating a human victim, or what is termed *pahvadam*, is undoubtedly a mere counterfeit rite to impose upon the ignorant and extort charity from the rich; and many others of their

exhibitions are intended for the same purpose. This does not, however, weaken our argument in favour of the extreme length to which a desire to confirm extraordinary doctrines will carry enthusiasts. Without going to Hindostan, we may find in Europe sufficient evidence of this fact; but the mention of one only will suffice to demonstrate the temper of the period when such proofs could be demanded or believed. When Antioch was taken by the Christians, in the eleventh century, the identity of the lance which was reputed to have pierced the side of our Saviour was disputed. The monk who had recently made the discovery, by the suggestion of a vision, offered to undergo the ordeal of fire to establish the truth of what he said. His offer was accepted, and he passed through the terrible proof. He died, however, within a few days, and the fact of the supposed discovery became problematical.[a] —Ed.

[a] Berrington's *Literary History of the Middle Ages*, 4to. 1814, p. 265.

## CHAPTER II.

Effect of perfumes on the moral nature of man—Action of liniments; the Magic Ointment frequently operated, by occasioning dreams, which the predisposition to credulity converted into realities — Such dreams may explain the whole history of Sorcery—The principal causes which multiplied the number of Sorcerers, were the employment of mysterious secrets—The crimes which these pretended mysteries served to conceal; and the rigorous laws absurdly directed against the crime of sorcery.

THE impression of the marvellous increases upon us in proportion to the distance which seems to separate the cause from the effect. Draughts and drugs could not be administered without the concurrence of the individual on whom they were intended to operate: but persons might involuntarily become intoxicated by the perfumes shed around the altar, and the incense lavishly used in magical ceremonies, even without a suspicion of their powers. This fact afforded many advantages to the Thaumaturgist, especially when it was his interest to produce visions and ecstacy. The choice and the combination of these perfumes were scrupulously studied.

It may be remembered that in order to give children a capability of receiving revelations in dreams, the use of fumigations with certain ingredients, was recommended by Porphyrus.* Proclus, who, frequently in common with his philosophic contemporary transmitted mere medicinal prescriptions, under the form of an allegory, relates† that the founders of the ancient priesthood, after collecting various odours combined them according to the process of divine art: by which means, a singular perfume was compounded, in which the energy of the numerous odours was brought to a climax by this union, and became necessarily weakened by separation.

In the Hymns ascribed to Orpheus, and which evidently belong to the ritual of some very ancient worship, a separate perfume is assigned to accompany the invocation of each divinity. These diverse rites had not, invariably, an actual meaning in their application: but general rules being thus established, they were more easily taken advantage of, on necessary occasions, the priest having the power of directing the perfume to be used in addressing any particular divinity.‡

* Proclus. *De Sacrificis et Magiâ.*

† Proclus. *De Sacrificis et Magiâ.*

‡ The ancients were particularly fond of perfumes. In Athens, when the guests invited to a feast entered the house of their host, their beards "were perfumed over with censors of frankincense, as ladies have their tresses, on visiting a Turkish harem. The hands, too, after each lavation, were scented." It was usual, also, "after supper to perfume the guests.[a] The influence of odours

[a] St. John's *Manners and Customs of Ancient Greece,* vol. I. p. 175—184.

The physical and moral action of odours has not perhaps, in this view, been so much studied, by modern philosophers, as by the ancient Thaumaturgists. Herodotus, however, informs us, that the Scythians became intoxicated by inhaling the vapour arising from the seeds of a species of hemp, thrown upon heated stones.* We learn also from modern science, that a disposition to anger and to strife, is produced, by the mere odour of the seeds of henbane, when its strength is augmented by heat. Three examples, related in *Le Dictionnaire de Médecine*,† and in *l'Encyclopédie Métho-*

on the organs of smelling, depends more on the condition of the nervous tissue of that organ, than upon the nature of the odours; and much also is due to the healthy or the diseased condition of the system. Odours delightful to one person, are intolerable to another: mignionette possessed nothing agreeable in its odour to the celebrated Blumenbach; and the distinguished Baron Haller declared, that no odour was so agreeable to him as that of a dissecting-room. The impression made upon the olfactory nerves is generally transitory, the sensation vanishing when the odorous substance is withdrawn; but the sensations of some odours continue after the impression of the odorous matter has ceased. In some persons odours do not operate as merely topical stimulants, but affect the whole system: thus, in some, Ipecacuanha causes an asthmatic fever; in others, the odour of the African geranium, *Pelargonium*, causes faintings; the odour of the rose has produced epilepsy; whilst a few nervous people either lose the power of smelling, or have a constant consciousness of a bad odour, or of something which is not present. Many odours excite powerfully the brain; some animals, as, for example, cats, are intoxicated by valerian; whilst other animals, and man himself, are sickened by the odour of tobacco.—Ed.

* *Herodot.* lib. iv. cap. lxxv.

† Tom. vii. art. *Jusquiame.*

*dique* go to prove this effect. The most striking is the case of a married couple, who although, every where else, they lived in perfect harmony could not, without coming to blows, remain a few hours in their ordinary work-room. The room got credit for being bewitched, until the cause of these daily quarrels, over which the unfortunate pair were seriously concerned, was discovered; a considerable quantity of seeds of henbane were found near the stove, and with the removal of the substance, which emitted this unfortunate odour, all tendency to quarrel vanished.

This class of agents was so much the more valuable, to the Thaumaturgist, that it not only eludes the eye, but it does not even affect the olfactory nerves, in proportion to the violence of its effects.

There are substances still more energetic than perfumes, which affect our nature by acting on the exterior of the body. The extract or the juice of Belladonna, when applied to a wound, produces delirium accompanied by visions;—one drop of this juice, if it touch the eye, will also cause delirium, but preceded by *ambliopia*, or double images.* A man under its influence, sees every object doubled;† and when subjected to its influence

* This observation was made by Dr. Hymli. See also Pinel, *Nosographie Philosophique* (5th edition), tom. III, p. 46, et Giraudy. "*Sur le délire causé par la Belladone,*" &c. A Thesis sustained in 1818.

† No extract, or expressed juice of Deadly Nightshade, Atropa *Belladonna*, known at present, will produce the effect described in the text, when the eye is touched with it; but when it is taken in full doses, into the stomach, it causes dilatation of the pupils, visual illusions, confusion of the head, and delirium resembling that of intoxication.—Ed.

by the vengeance of the Thaumaturgist, he would exclaim like a new Pentheus—"that he beheld two suns, and two cities of Thebes."*

Experiments have decidedly proved, that several medicaments, administered in the form of liniments, are taken in, by the absorbent system, and act upon the habit in the same manner as when they are directly introduced into the stomach. This property of liniments was not unknown to the ancients. In the romance of Achilles Tatius, an Egyptian doctor, in order to cure Leucippus of an attack of frenzy, applied to his head a liniment composed of oil, in which some particular medicament was dissolved: the patient fell into a deep sleep, shortly after the anointing. What the physician was acquainted with, the Thaumaturgist could scarcely be ignorant of; and this secret knowledge endowed him with the power of performing many apparent miracles, some merciful, some marvellous and fatal in their tendency. It cannot be disputed that the customary and

* Virgil. *Æneid.* lib. IV. verse 469. Pentheus was King of Thebes, in Bœotia. In his efforts to put down, in his kingdom the Bacchanalian rites, on account of the gross sensualities which attended them, and his refusal to acknowledge the divinity of Bacchus, he was allured into a wood on Mount Cithæron, with the view of witnessing the ceremonies unnoticed, and was attacked by the Bacchanals and murdered. It is said that his mother was the first who attacked him, and she was followed by his two sisters, Ino who afterwards committed suicide, and was deified by the Gods, and Antihoe. His body was hung upon a tree, which was afterwards cut down by order of the oracle, and made into two statues of the Dyonesian God, which were placed on Mount Cithæron. The priests, no doubt, could have given a satisfactory explanation of the whole transaction.—ED.

frequent anointing, which formed part of the ancient ceremonials, must have offered opportunities, and given facility for turning this knowledge to advantage. Before consulting the oracle of Trophonius, the body was rubbed with oil;* this preparation undoubtedly concurred in producing the desired vision. Before being admitted to the mysteries of the Indian sages, Apollonius and his companions were anointed with an oil, the strength of which made them imagine *that they were bathed with fire.*†

The disciples of the men who established, in the heart of America, religious doctrines and rites, evidently borrowed some of them from the Asiatics. The priests of Mexico, preparatory to their conversing with their divinity, anointed their bodies with a fœtid pomatum. The base of it was tobacco, and a bruised seed called

* *Pausanias*, lib. IX. cap. XXXIX. Pausanias was initiated into these mysteries. The priests first made him drink from the well of *Oblivion*, to banish his past thoughts; and then from the well of *Recollection*, that he might remember the vision he was about to behold. He was then shewn a mysterious representation of Trophonius, and forced to worship it. He was next dressed in linen vestments, with girdles around his body, and led into the sanctuary, where was the cave into which he descended by a ladder: at its bottom, in the side of the cave, there was an opening, and having placed his foot in it internally, his whole body was drawn into it by some invisible power. He returned through the same opening at which he had entered; and being placed on the throne of Mnemosyne, the priests inquired what he had seen, and finally led him back to the sanctuary of the Good Spirit. As soon as he recovered his self-command, he was obliged to write the vision he had seen on a little tablet, which was hung up in the temple.—ED.

† Philostrat. *De vit. Apol.* lib. III. cap. V.

*Ololuchqui*, the effect of which was to deprive man of his judgment, as that of the tobacco was to benumb his senses. After this, they felt themselves very intrepid and not less cruel ;* and, no doubt, predisposed to have visions, since the intention of this practise was to bring them into connection with the objects of their fantastical worship.

But, quitting the temples for a while, let us trace the effects of this secret when divulged, and after it had fallen into the hands of ordinary magicians.

It is difficult to conceive that all is imposture in the imaginings of poets and writers of romance, respecting the effects of magical ointments. The ingredients of which they were composed had, undoubtedly, some efficacy. We have suggested that sensual dreams were mingled with the sleep which they induced; a supposition whose probability rests on the fact, that those who sought their aid were generally those whose love had been disappointed or betrayed.†

* Acosta. *Histoire des Indes Occidentales*, liv.v. chap.xxvi, French translation (in 8vo. 1616), pp. 256, 257. The Mexican priests introduced into this ointment the ashes of the bodies of insects that were esteemed venomous, undoubtedly to distract the attention from the nature of the drugs that were to prove efficacious.

† As these ointments seem to have operated upon the nervous system nearly in the same manner as the philtres of the Greeks and Romans, it is probable that cantharides was one of the ingredients. Its active principle, *Canthariden*, is very soluble in oil, and fatty matters, and in this solution it is readily absorbed and carried into the system. It is this principle that causes stranguary after the application of a blister. The ancient love philtres were administered in the form of potions, which often acted so violently as to produce dangerous delirium. The madness of Caligula was

The demands of passion or curiosity for enchantments were generally answered by means of dreams, produced by these magical ointments; and so vivid were the illusions that they could not fail to pass for reality; a circumstance demonstrated in the history of prosecutions for sorcery, the number of which almost surpass belief.

It was in the night, and during sleep, that the sorcerers were transported to the *Sabbat*. In order to obtain this privilege, they were obliged to rub themselves in the evening with pomatum,* the composition of which was unknown to them, but its effects were precisely such as we have mentioned.

A woman accused of sorcery was brought before a magistrate of Florence, a man whose knowledge was greatly in advance of his age and country. She declared herself to be a sorceress, and asserted that she would be present at the *Sabbat* that very night, if allowed to return to her house and make use of the magic ointment. The judge assented. After being rubbed with fœtid drugs, the pretended sorceress lay down and immediately fell asleep; she was tied to the bed, while blows, pricking, and scorching failed to break

attributed to one which was given to him by his wife Cæsarina. Juvenal[a] speaks of the Messalian philtre as one of the most powerful.—Ed.

* The confessions made by the sorcerers, at the Inquisition of Spain, in 1610, speak of the necessity, in order to be present at the Sabbat, to rub the palms of the hands, the soles of the feet, &c., with the water of a frightened or irritated toad, (Llorente, *Histoire de l'Inquisition*, chap. xxxvii. art. 2, tom. 3, p. 431, et suivantes): a puerile receipt, only intended to conceal the composition of the real ointment, even from the initiated.

[a] *Juv.* vi. p. 610.

her slumber. Roused at length, with much trouble, she related the next day that she went to the *Sabbat*, and she detailed the painful sensations which she had really experienced in her sleep, and to which the judge limited her punishment.*

From three anecdotes precisely similar, which we might quote, from Porta and Fromann,† we shall only extract a physiological remark. Two of the reputed sorcerers, sent to sleep by the magic ointment, had given out that they should go to the Sabbat, and return from it, flying with wings. Both believed that this really happened, and were greatly astonished when assured of the contrary. One in his sleep even performed some movements, and struck out as though he were on the wing. It is well known that, from the blood flowing towards the brain during sleep, it is not uncommon to dream of flying and rising into the air.‡

* Paolo Minucci, a Florentine jurisconsult, who died in the sixteenth century, has transmitted this interesting fact, in his commentary on the *Malmantile Racquistato*, cant. IV. Ott. 76.

† J. B. Porta. *Magia Natur.* lib. II. cap. XXVI,; Fromann. *Tract. de Fascin.* pp. 562, 568-569.

‡ When sleep is not very profound, the senses, in a certain degree, are excitable; and the conception of ideas by the mind does not entirely cease, consequently dreams occur. If a light is suddenly brought into a room where a person is in this kind of sleep, he will either dream of being under the equator, or in a tropical landscape; or of wandering in the fields in a clear summer's day; or of fire. If a door is slammed, but not so loud as to awake the sleeper, he will dream of thunder; and if his palm be gently tickled his dreams will be one of ecstatic pleasure. If some particular idea completely occupies the mind during the waking state, it will recur in dreams during sleep; hence the minds of these unfortunate people

While they acknowledge that they used a magical ointment in order to be present at the Sabbat, these ignorant creatures could give no recipe for making it; but medicine will readily furnish one. Porta and Cardanus* have mentioned two; the Solanum *somniferum* forms the base of one, while Henbane and Opium predominate in the other. The learned Gassendi endeavoured to discover

mentioned in the text, being strongly impressed with the idea of being present at the *Sabbat*, the dreams would apparently realize that event. If a person in sleep folds his arms closely over his breast, he is likely to dream of being held down by force, and the images of the persons employed in holding him down will be also present to his mind. The predominant emotions of the mind influence greatly the character of dreams. When the influence is depressing, the dreams are generally terrible or distressing; when the exhilarating occupy it, the dreams are delightful and joyous. In dreams, circumstances may present to the mind forebodings; and it is not impossible that these may really come to pass, without any thing wonderful in the occurrence; yet it appears wonderful, although when the circumstances are analyzed, it will be seen to be merely the result of some leading thought fixed upon the mind, and cherished during the hours of waking. In sleep, a certain degree of voluntary motion may be exerted, and the person may talk, and appear to hear and understand those who speak to him in return: such a state constitutes somnambulism. In such a condition, the functions of the brain are always more or less disturbed. The oily frictions said to have been employed by the sorcerers must have had narcotic properties; but, independent of these, whatever gently stimulates the skin operates sympathetically on the sensorium, and favours sleep and dreaming.—Ed.

* J. Wierius. *De Præstig.* lib. II. cap. XXXVI. p. 4; J. B. Porta. *Magia Natur.* lib. II.; Cardan. *De Subtilitate,* lib. XVIII. Wierius says that the ointment mentioned by Cardanus, consisted of the fat of boys, mixed with the juice of parsley, aconite, solanum, pentaphylum, and soot.—Ed.

and to imitate this secret, in order to undeceive the miserable beings who imagined themselves to be sorcerers. He anointed some peasants, whom he had fully persuaded that they should attend the *Sabbat*, with an ointment containing opium After a long sleep, they awoke, satisfied that the magic process had produced its effect; and they gave a detailed account of all they had seen at the *Sabbat*, and the pleasures they had enjoyed: in the particulars of which, and the mention of voluptuous sensations, we may trace the action of opium.*

* The most absurd stories were told and believed respecting this assembly of demons and sorcerers. Among others, we are told that a husband having suspected his wife of being a sorceress, and desirous to know whether she attended the *Sabbat*, and how she transported herself there, watched her, and, one evening, found her occupied in anointing her body. She then took the form of a bird, and flew away; but, in the morning, he found her in bed at his side. He questioned her respecting her absence; but she would make no confession until she was severely beaten, when she acknowledged that she had been at the *Sabbat*. He pardoned her, on the condition that she would convey him thither, and she assented to his wish. On arriving at the place, he was placed at table with the assembled magicians and demons; but finding the food very insipid, he asked for salt, which was not brought. Perceiving, however, a salt-cellar near him, he exclaimed,—"God be praised, the salt is come at last!" In an instant, the whole assemblage and the repast vanished, and he found himself in the midst of barren mountains, more than thirty leagues from his house. On returning, he related the whole affair to the Inquisitors, who immediately ordered the arrest of his wife, and many of her accomplices; all of whom, accordingly, were found guilty, and unmercifully condemned to the stake.

In such a period, it was unnecessary to poison or to murder a wife who had lost her husband's affection, or incurred his suspicion; the law was willing and ready to perform the office of executioner for him.—Ed.

In 1545, a pomatum composed of opiates was found in the house of a sorcerer. André Laguna, physician to Pope Julius III., made use of it to anoint a woman labouring under frenzy and loss of rest. She slept thirty-six hours consecutively; and when they succeeded in awaking her, she complained of being taken from a most extraordinary situation.* We may, with the judicious and unfortunate Llorente, compare this illusion to those experienced by the women devoted to the worship of the Mother of the Gods, when they heard continually the sound of flutes and of tambourines, saw the joyous dances of the fauns and satyrs, and tasted inexpressible pleasures: similar medicaments were the cause among them of a similar kind of intoxication.

To this cause we may, likewise, refer the success of the magicians in their amours, such as those which Lucian and Apuleius have rendered so famous. This gives new grounds for the probability that the same secret, with slight variations, was obtained by the wretched sorcerers of the West from the inferior magicians, who made a merchandise of love philtres in Greece and in Italy.

In all ages the number of sorceresses has surpassed that of sorcerers; which is accounted for by women possessing a warmer imagination and a more sensitive organization than men. In the same way we may explain why, in the fables so often repeated, where the demons or magi were magically united to mortals, the greater number of instances are referable to night-mare.

* A. Laguna. *Commentaire sur Dioscoride,* lib. LXXVI. cap. IV. cité par Llorente. *Histoire de l'Inquisition,* tom. III. p. 428.

They were real dreams, heightened by a disposition to hysteria, and this was the only reality they possessed.

In short, we do not scruple to say that, in order to explain the principal facts registered in the bloody archives of civil and religious tribunals, and in the voluminous records of demonology; in order to explain the confessions of the multitude of credulous or imbecile persons of both sexes who firmly believed themselves to be sorcerers, and were convinced that they had attended the *Sabbat*, it is only necessary to connect, with the use of the magical ointment, the deep impression on the imagination produced by previous descriptions regarding the *Sabbat*, with the ceremonies that were witnessed there, and the joys in which those who joined such abominations were to participate.

These presumed assemblies, indeed, and their guilty purposes had been notorious from the commencement of the fifth century, and awakened at an early period the increasing severity of the clergy and the magistrates. They are described as of frequent occurrence and long duration; yet all this time the sorcerers were never once detected at any of these meetings. It was not that fear prevented it; the same records and trials mention certain proceedings by which either the legal agents or ministers of religion, far from having any thing to fear from the spirits of darkness, obtained an ascendancy over them, and had power to apprehend the miserable creatures, in spite of the evil spirit by whom they were misled. But in reality these assemblies had no existence, otherwise they must have survived the wrecks of Polytheism. Solitary initiations were substituted for them, and these were soon reduced to a

mere confiding of secrets; all that remained then was a mutilated tradition of ceremonies borrowed from various pagan mysteries, and a description of the joys promised to the initiated. Conformably to the declarations of the sorcerers themselves, we cannot fail to perceive that they believed the ointment, with which they rubbed their bodies, to be magical; and the facts quoted prove that its effect was so powerful as to leave them no more in doubt as to the reality of the fanciful impressions it occasioned, than of those sensations received by them in their waking hours. Thus they had the full persuasion of having partaken of rich feasts, while they acknowledged before the judges that at these banquets neither hunger nor thirst were appeased;* the impression of reality was so great, that they could not believe they had merely dreamed of eating and drinking. With their dreams, however, as is usually the case, were mingled various reminiscences. On one hand, memory presented to them a confused succession of absurd scenes, which they had been led to expect; and, on the other, in the midst of magical ceremonies they saw introduced, as actors, persons of their own acquaintance, whom they actually denounced, swearing they had seen them at the *Sabbat;* yet this homicidal oath was no perjury! They made it with the same conviction that led them to confessions and revelations, and which devoted them to frightful punishments. Fromann relates† that the confessions of sorcerers condemned to be burnt at Ingolstadt, were publicly read; they confessed to having cut off the lives of several per-

* Fromann. *Tract. de Fasc.* p. 613.

† Fromann. *Tract. de Fasc.* p. 850.

sons by their witchcraft: these persons lived, were present at the trial, thus refuting the absurd confession; and, nevertheless, the judges continued to institute suits against sorcery. In 1750, at Wurtzburg, a nun was accused of this crime, and carried before a tribunal, where she firmly maintained that she was a sorceress: like the accused at Ingolstadt, she named the victims to her sorceries; and although these persons were then alive, yet the unfortunate creature perished at the stake.*

The opinion which these revelations tend to establish

* Voltaire. *Prix de la Justice et de l'Humanité*, art. x.

In 1515 not less than five hundred persons were tried at Geneva, on charges of witchcraft, and executed; and in Scotland, in 1599, scarcely a year after the publication of the "Dæmonologie" of King James, not less than six hundred human beings were destroyed at once for this imaginary crime.[a] The sufferers in England, also, were very numerous. The statute of James, which adjudged those convicted of witchcraft to suffer death, was not repealed until the year 1736, the ninth of George the Second.

In every country, it may be asked, who were the assumed witches? We may reply in the words of Reginald Scott, in his "Discoverie of Witchcraft,"[b] they were "women which be commonly old, lame, bleare-eied, pale, fowle, and full of wrinkles; poore, sullen, superstitious, and papists; or such as know no religion; in whose drousie minds the divell hath gotten a fine sear; so as, what mischafe, mischance, calamitie, or slaughter is brought to passe, they are easilie persuaded the same is doone by themselves, imprinting in their minds an earnest and constant imagination thereof. They are lean and deformed, shewing melancholie in their faces, to the horror of all that see them. They are doting, scolds, mad, divelish, and not much differing from them that are thought to be possessed with spirits; so firm and stedfast in their opinions, as whosoever shall onlie have respect to the constancie

[a] Nashe's *Lenten Stuff*, 1599; Drake's *Shakespeare*, vol. II. p. 477.

[b] See book I. chap. III. p. 7.

is not new; J. Wierius had already honoured himself by establishing it. A Spanish theologian* addressed a Treatise to the Inquisition, in which, representing the opinion of many of his contemporaries, he maintained that the greater number of the crimes imputed to the sorcerers have existed only in dreams; and that for the production of these dreams it was only necessary to anoint the body with drugs, and to establish a firm faith in the individual that he should really be transported to the *Sabbat*.†

We do not say that particular causes, in subordination

of their words uttered, would easilie believe they were true indeed." No comment could throw any additional light upon the cruel nature of these persecutions, and the description of their miserable victims.—Ed.

* Llorente. *Histoire de l'Inquisition*, tom. III, pp. 454, 455.

† It has been, with some degree of probability, supposed, that the idea of the Sabbat arose from the secrecy with which the meetings of the Waldenses were compelled to be held; and the accusations of indulging in unhallowed rites which were brought against them. At a very early period, these persecuted people had separated and kept themselves distinct from the Church of Rome. In 1332, Pope John XXII. issued a Bull against them, and another was sent forth, in 1487, by Innocent VIII., enjoining the Nuncio, Alberto Capitaneis, "to extirpate the pernicious sect of malignant men called the poor people of Lyon, or the Waldenses, who have long endeavoured in Piedmont, and other neighbouring parts, to ensnare the sheep belonging unto God, under a feigned picture of holiness." Many persecutions followed; but the Waldenses defended their opinions with the most determined resolution, and even with the sword. In some of the defeats which they suffered, both women and children were put to death; and the prisoners were, in several instances, burnt alive. These excesses drove the wretched Waldenses, thus suffering for conscience sake, to take refuge in the fastnesses of the mountains, a step which brought

to this general one, may not have had a very sensible influence in producing the accusations of witchcraft among a very ignorant population; for example, the possession of superior science has brought upon a man the reputation of being a sorcerer. The opportunity afforded for observation, was the source of the accusation of sorcery against shepherds. In their frequent isolation from society, necessity has forced these men to be the physicians and surgeons of their flocks; and, favoured by chance and guided by analogy, they were sometimes enabled to perform cures on their own race. The sick man was healed; and the question was put, whence did the

upon them the accusations already noticed, and originated the supposition that the *Sabbat*, which the wretches suspected of witchcraft were stated to attend, was a real meeting. The Waldenses were also sometimes called *Scobases*, from the belief that, like the witches, they proceeded through the air to their meetings riding upon broomsticks. Credulity regarded the *Sabbat* as real; for Reginald Scott informs us, that it was generally believed that the witches met together "at certaine assemblies, at the time prefixed, and doo not onlie see the divell in visible forme, but confer and talke familiarlie with him:" and he adds that, on the introduction of a novice, the Arch-demon, "chargeth hir to procure men, women, and children also, as she can to enter into this societie . . . At these magical assemblies, the witches never fail to danse, and whiles they sing and danse everie one hath a broome in hir hand, and holdeth it up aloft."[a] Such was the extraordinary length to which credulity extended respecting this imaginary assembly; and one of the chief features of the monstrous and gross superstition which existed, at the period alluded to, was the melancholy fact that it was the creed of all ranks, from the monarch to the beggar. Happily since the light of education has penetrated into the cottage, it remains merely as a matter of fanciful tradition.—Ed.

[a] *Discoverie of Witchcraft*. book I. chap. III.

uninstructed individual derive so marvellous a faculty if not from magic? Several shepherds, it is well known, also, become, in a short time, so intimate with the individual physiognomy of their sheep, as readily to distinguish any one of his own flock mingled with the flock of another shepherd.* The man who could thus select his own from a thousand animals, apparently similar, could not easily avoid being deemed a sorcerer; particularly if vanity or interest should lead him to favour the error, which gains him the reputation of superior power and knowledge. What must be the consequence then, if the centre whence light ought to emanate; if the authority, which rules the destiny of every citizen; is governed by the common opinion? Even in our own day, the French legislation has treated shepherds, as accused, or at least as suspected of sorcery; for we find that simple menaces, from them, are punished by tortures, reserved, in other cases, for assaults and murders. Does not this arise from the supposition, that there is a power of evil in their mere words? This law, enacted in 1751,† although fallen into disuse, has not yet been formally abrogated.

The severity exercised towards sorcerers, although

* M. Desgranges. *Mémoire sur les Usages d'un Canton de la Beauce. Mémoires de la Société des Antiquaires de France,* tom. I. pp. 242, 243.

† A similar law forbids all shepherds to menace, ill treat, or do any wrong to the farmers or labourers whom they serve, or who are served by them, as well as their families, shepherds, or domestics, under penalty, for the said shepherds, of five years at the galleys for simple menaces, and for ill treatment nine years."—*Préambule du Conseil-d'Etat du Roi, du* 15 *Septembre,* 1751.

altogether absurd in principle, yet was not always unjust in its application, since sorcery served frequently, as the mask or instrument for the perpetration of criminal actions. Thus the use of drugs, by which the fish in a preserve are rendered so stupified, that they can be taken by the hand, although considered now a delinquency, provided against and punished by law, was formerly regarded as the effect of sorcery. The tricks of sharpers, with whose delinquencies our small courts are daily filled, and which consist of selling the imaginary aid of supernatural power at a high rate, were acts of sorcery. Sorcery, indeed, was a cover for many atrocities, and crimes, sometimes arising from the mere desire to impose; sometimes from transports of cruelty or refinements of revenge, and the wish to transfer their load of guilt to those whom they initiated.*

* "*Commodus* . . . . . sacra Mithriaca homicidio vero polluit; cùm illic aliquid, ad speciem timoris, vel dici, vel fingi soleat."—(*Ael. Lamprid. in Commod. Anton.*) This phrase is obscure; and shews us the extreme reserve of ancient writers on all that concerned the initiations. We may, nevertheless, deduce from it, that the novice in the mysteries of Mythra believed himself obliged to obey the command of the initiating to kill a man. These mysteries, which penetrated into Rome, and afterwards into Gaul, towards the commencement of our era, belonged, in Asia, to the remotest antiquity, since Zoroaster was thus initiated before setting out on his religious mission. Now this prophet was much earlier than Ninus; the religion which he founded was general and powerful in the empire of Assyria, in the time of Ninus and Semiramis. The trial which the priests of Mythra, in order to assure themselves, made use of to determine the resolution and docility of an aspirant, is still practised by one of the superior Lodges of Freemasons. Similar trials necessarily passed into the schools of magic, from the ancient temples; and that which was only used as a pretence in general, might easily on occasion become reality.

But, it cannot be denied, that poison alone, has too often constituted the real efficacy of sorcery; this is a fact of which the ancients were not ignorant, a proof of which exists in the passage in the second eclogue of Theocritus,* which we have just quoted. It is a curious fact, confirmed by judicial trials in modern times,† that the victim persisting in ascribing his sufferings to supernatural agency, has thus aided in shielding the real crime of the guilty from the investigation of the law.

In such a case, had the magistrates been enlightened, as well as severe, they would have acquired great claims to public gratitude, by giving some attention to the real nature of the crime, as well as to the punishment of it. They might, by unveiling and giving publicity to pretended magical operations, have exposed the impotency of the magicians, when prevented by circumstances from having recourse to their detestable practices; and by

* See chap. IX.

† In 1689, some shepherds of Brien destroyed the cattle of their neighbours, by administering to them drugs on which they had thrown holy water, and over which they recited magical incantations. Prosecuted as sorcerers, they were condemned as poisoners. It was discovered that the basis of these drugs was arsenic.

It is curious to observe the similarity of customs in very distant countries. In Shetland the religious charmer imbued water with magical powers for a very opposite purpose, namely, to preserve from mischance; to combat an evil eye or an evil tongue. The charmer muttered some words over water, in imitation of Catholic priests consecrating holy water, and the fluid was named "forespoken water." Boats were sprinkled with it; and diseased limbs washed with it, for the purpose of *telling out* pains.—Ed.

such revelations, many disordered imaginations might eventually have been cured.

But far from doing so, the judges, for a long period, reasoned like the inquisitors who, when obliged, by formal depositions, to admit that the secret of the sorcerers consisted in the composition of poisons, punished nevertheless the imaginary rather than the real crime.* Legislators had no clearer discernment than the populace: they issued terrible decrees against sorcerers, and even by these means doubled, nay tenfold increased their number. To doubt, in this case, the effect of persecution, were to betray great ignorance of mankind. Opening a vast field for all the calumny and tale-bearing, that might be dictated by folly, by fear, by hatred, or vengeance, in preparing instruments of torture, and erecting stakes in every market-place, they multiplied absurd or false accusations and still more absurd confessions.† In giving importance to these foolish terrors,

* Llorente. *Histoire de l'Inquisition*, tome III. pp. 440—441.

† No portion of the history of witchcraft is more extraordinary than the confessions occasionally made by the wretched beings who were brought to trial as sorcerers. Although many of them were extorted under torture, and afterwards revoked during moments of mental and bodily resuscitation, yet some of those recorded were voluntary. What condition of mind, it may be asked, could lead to the latter, if we can believe that the accused could ever fancy that they were really actors in such supernatural transactions? In reply, we may venture to suggest, that vanity, one of the most powerful agents in the female character, in raising an idea of importance at being thought possessors of the extraordinary powers which they assumed, must have had a considerable share in producing them. As a specimen of these confessions, we may mention that of Agnes Tompson, who was implicated in the

by bringing the sacred character of the law to bear upon them, they rendered this general apprehension incurable. The multitude no longer doubted the guilt of men who were so rigourously prosecuted; enlightened individuals swelled the ranks of the multitude, either from the influence of the general panic, or lest they should themselves become suspected of the crimes, whose existence they denied. How can we otherwise account for the lengthened and deplorable annals of sorcery, whose daily records tell of acts perfectly impossible, but which the accused confessed, the witnesses affirmed, the doctors established, and the judges visited with punishment

supposed detected conspiracy of two hundred witches with Dr Fian, "Register to the Devil," at their head, to bewitch and drown King James, on his return from Denmark in 1590. Agnes confessed that she and the other witches, her comrades, "went altogether by sea, each one in her riddle or sieve, with flaggons of wine, making merry and drinking by the way, to the kirk of North Berwick, in Lothian, where, when they had landed, they took hands and danced, singing all with one voice—

"Commer goe ye before, Commer goe ye;
Gif ye will not go before, Commer let me:"

and "that Giles Duncane did go before them, playing said reel on a Jew's trump; and that the devil had met them at the kirk."

The silly monarch, who was present at their confession, expressed some doubts as to the last part of it; but, taking Agnes aside, he affirmed that she "declared unto him the very words which had passed between him and his Queen on the first night of their marriage, with their answers to each other; whereat the King wondered greatly, and swore by the living God, that he believed all the devils in hell could not have discovered the same."[a] —Ed.

[a] *Newes from Scotland*, reprinted in the *Gent. Mag.* vol. xlix. p. 449, and quoted in Drake's *Shakespeare*, vol. ii. p. 476.

and death! It was, for instance supposed, that the physical insensibility of the whole, or some part of the body, was a sure sign of a compact with the devil. In France, in 1589, fourteen pretended sorcerers, who were declared incapable of feeling, were, for this cause condemned to death, on the testimony of the surgeons who formed part of the legal commission. On an appeal from these unfortunate beings, another examination was ordered by the parliament, at that time assembled at Tours. The sentence was stayed by the sensible men who conducted the second inquiry, and who reported that the accused were imbecile or deranged, (perhaps in consequence of the misery they had endured), but in other respects physically possessing a keenly sensitive nature.* For once, truth was triumphant, and the lives of the poor wretches were saved. But this was a singular instance.

The course of the seventeenth century again saw a great number of prosecutions for sorcery; till at length the progress of knowledge, the great benefit of civilization, drew the film from the eyes of the supreme authorities. The Act of the Parliament of France, of 1682, decrees that sorcerers shall be no longer prosecuted, except as deceivers, blasphemers, and poisoners, that is to say, for their real crimes; and from that time their number has diminished every day.†

This discussion may appear superfluous to those impatient spirits, who believe it but loss of time, to refute to-day, the error of yesterday; forgetting that the development of the sources of error form an essential

* *Chirurgie de Pigray*. lib. VIII. chap. x. p. 445.

† Dulaure, *Histoire de Paris*, tome v. pp. 36—37.

part of the History of the human mind. Besides although the better instructed throughout Europe have ceased to believe in witchcraft, is this progress so very remote; has the light already shone on so vast a circle that this subject merits only to be consigned to oblivion? Scarcely a hundred years have elapsed since a book appeared in Paris, recommending the rigour of the laws, and the severity of the tribunals against sorcerers, and against those who were sceptical, as to the existence of witchcraft, and magic; yet this book has received the approbation of the judges of literature.*

We have already related the punishment of a pretended witch, who was burned at Wurzburg, in 1750. At the same period, in an enlightened country, the rage of popular credulity survived the rigour of the magistrates, who had ceased to prosecute for a chimerical crime. "Scarcely half a century has elapsed," writes a traveller, an enthusiastic admirer of the English, "since witches have been drowned in England. In the year 1751, two old women, suspected to be witches, were arrested, and in the course of some experiments made on these unfortunate creatures, by the populace, they were plunged three several times into a pond, and were drowned; this occurred near Tring, a few miles from London."† Notwithstanding the vicinity of the metropolis, it does not appear that any steps were taken to punish the actors in these

* *Traité sur la Magie* par Daugis (in 12mo. Paris, 1732), extracted, with an eulogium on it, in the *Journal de Trévoux*, September, 1732, pp. 1534—1544.

† *Voyage d'un Français en Angleterre*, (2 vols. 8vo. Paris, 1816, tome I. p. 490.)

two murderous assaults, to which the traveller gives the gentle name of experiments.*

* It is curious to trace the influence of the belief of witchcraft in England and Scotland, at different periods. It had attracted the attention of Government in the reign of Henry the Eighth, in the thirty-third year of which a statute was enacted which adjudged all witchcraft and sorcery to be punished as felony, without benefit of clergy. This statute did not regard these crimes as impostures, but as real supernatural demoniacal gifts, and consequently punishable. In the subsequent reign, Elizabeth, the Queen, suffered "under excessive anguish by pains in her teeth,"[a] which deprived her of rest, a circumstance which was attributed to the sorcery of a Mrs. Dyer, who was accused of conjuration and witchcraft on that account; indeed, the belief had infatuated all ranks, and extended even to the clergy. Bishop Jewel, in a sermon preached before the Queen in 1558, made use of the following expressions:—"It may please your Grace to understand that witches and sorcerers, within these few last years, are marvellously increased within your Grace's realm. Your Grace's subjects pine away, even unto the death; their colour fadeth,—their flesh rotteth,—their speech is benumbed,—their senses are bereft;—I pray God they never practise further upon the subject."[b] Reginald Scott, also, in his excellent work, entitled "The Discoverie of Witchcraft," says, "I have heard, to my greefe, some of the ministerie affirme, that they have had in their parish, at one instant, xvii or xviii witches; meaning such as could work miracles supernaturallie."[c] Were we not accurately informed of the deep root, and consequently firm hold, which the idea of the existence of witchcraft had taken of the public mind at this period, the neglect of Scott's work, and that of Johannis Wierus, *de Prestigiis Dæmonum*, would greatly astonish us. Both of these valuable productions were intended to free the world from the infatuation which had seized upon it; to prove the falsehood of the accusations, and even of the confessions; and to shield the poor, the

[a] Styrpe's *Annals*, vol. iv. p. 7.

[b] Styrpe's *Annals*, vol. i. p. 8.

[c] *Discoverie of Witchcraft*, chap. i. p. 4.

After such an example, it may be understood, how ignorant, and the friendless aged from falling victims to the arm of murder, under the perverted name of justice, uplifted by terror and the darkest superstition. Scott informs us, that the whole parish of St. Osus, in Essex, consisting of "seventeene or eighteene, were condemned at once." On the accession of James to the English throne, the superstition of that weak and absurd monarch, which had been previously displayed in his "Demonologie," published at Edinburgh in 1597, brought forth a new statute against witches, which contains the following clause:— "Any that shall use, practise, or exercise any invocation or conjuration of an evill or wicked spirit, or consult, covenant with, entertain, or employ, feed or rewarde, any evill or wicked spirit, or to or for any intent or purpose; or take up any dead man, woman, or child, out of his, her, or their grave, or any other place where the dead body resteth, or the skin, bone, or other part of any dead person, to be employed or used in any manner of witchcraft, sorcery, charme, or enchantment, whereby any person shall be killed, destroyed, wasted, consumed, pined, or bound in his or her body, or any part thereof; such offenders, duly and lawfully convicted and attainted, shall suffer death."[a] After such edicts as these, issuing from the highest authorities in the kingdom, can we wonder at the extension of the credulity of the people respecting supernatural agency; or at their faith in the power of those who professed to do "a deed without a name;" and who, as the silly monarch and royal author, to whom we have referred, sayeth, "gave their hand to the devil, and promised to observe and keepe all the devil's commandments."[b] The early Christians were not only dupes to these deceptions, but they preferred their assistance by means of prayers and benedictions to obviate the influence of the demon; and thus contributed to rivet the chains that already enslaved the human mind in the darkest superstition.[c]—Ed.

[a] This statute was not repealed till the 9th of George the Second, in 1736.

[b] *Discoverie of Witchcraft*, book III. chap. I. p. 40.

[c] The act of ducking supposed witches in England, has been practised more than once within the present century.

in 1760, in one of the inland provinces of Sweden,* it required the authority and the courage of the wife of a great personage, to save twelve families under an accusation of witchcraft, from the fury of the populace.

In 1774, in Germany, where philosophy is so ardently cultivated, numerous disciples and followers of Gassner and Schrœpfer, adopted their doctrines respecting miracles, exorcisms, magic, and Theurgy.† In 1785, in the canton of Lucerne, J. Muller, the celebrated historian, and one of his friends, while peaceably seated under a tree and reading Tacitus aloud, where assailed by a troop of peasants, who had been persuaded by some monks, that the strangers were sorcerers. They narrowly escaped being massacred.‡ At the commencement of the century several sharpers were condemned in France for traversing the country, and persuading the peasants, that spells had been cast, both on their cattle and on themselves; and, not satisfied with exacting payment for taking off the pretended spells, they raised violent enmities, and occasioned even murderous encounters, by pointing out the authors of these pretended spells.

It was still a matter of serious argument, in the schools of Rome, in the year 1810, as to whether sorcerers were mad or possessed.‖ They went further

* En Dalécarlie.—Barbier, *Dictionnaire Historique*, p. 1195.

† Tiedman. *Quæstione*, &c. pp. 114—115.

‡ C. V. de Bonstetten. *Pensées sur divers objets de bien public*, pp 230—232.

‖ Guinan Laoureins. *Tableau de Rome vers la fin de* 1814, p. 228.

in Paris, for in 1817, works* were there published in which the existence of magic was formally maintained; and in which the zeal of the learned and virtuous, but mistaken men, who formerly had caused sorcerers to be burned, was applauded.

Let the upholders of such doctrines applaud themselves; the doctrines are still dominant in those distant countries, where colonization has oftener introduced the vices than the advanced knowledge of Europe. The elevated and arid soil of the American islands, is, in summer, a prey to maladies which attack the horses and flocks, and do not even spare men. It cannot be doubted that they arise from the noxious properties of the stagnant water, which they are obliged to make use of; as a proof of which the habitations, near a running stream, invariably escape the scourge. Far from recognising this fact, the planters persist in ascribing their losses to sorcery, practised by their slaves; and, consequently the unlucky individuals, on whom chance fixes the suspicion, are condemned to perish by torture.†

But, to find examples of such horrible extravagance, it is unnecessary to cross the ocean. In the year 1617, in a country village of East Flanders, a father murdered his daughter, who was only ten years old, "because," he

* *Les Précurseurs de l'Anti-Christ.—Les Superstitions et Prestiges des Philosophes.* Voyez *le Journal de Paris,* 28 Décembre, 1817.—The maladies to which our author alludes are the consequence of malaria, arising from decomposing animal and vegetable matters. If such accusations as he mentions occur in the French West Indian Islands, they are happily unknown in the English. —Ed.

† I got this fact from an eye witness.

asserted, " she was a sorceress." For a similar motive he intended the same fate for his wife and sister.* It was pleaded in excuse that he was insane. What awful insanity was that, which converted the husband and father into an assassin ! How fearful the credulity that led to such a delirium ! Can we qualify the culpability of those who awaken, or who dare to encourage it ?

In 1826 the town of Spire was much scandalized by a circumstance that was more deplorable from the character given to it by the position of those with whom it originated, and from the moral consequences which might have ensued. The Bishop of that town died at the age of eighty-two years, and had bequeathed 20,000 florins to its cathedral. He was not buried in a chapel of his church, as his predecessors had been ; nor would the clergy take part in his obsequies, because they accused the venerable prelate of sorcery.†

How can one, after this, be surprised at the ignorant credulity of the multitude, with such an example from their spiritual advisers ?

In the peninsula of Hela, near Dantzic, a woman was accused by a charlatan of having cast a spell over a sick person. She was seized, and tortured several times in the course of two days ; twice they tried to drown her, they ended by murdering her with a knife, because she refused to acknowledge herself to be a witch, and because she declared herself incapable of curing the sick person.‡

* Voyez *le Journal de Paris, Jeudi,* 3 *Avril,* 1817. p. 3.

† Voyez *le Constitutionnel, du* 15 *Août,* 1826.

‡ Voyez *le National du* 28 *Août,* 1836.

In France also, justly proud of its enlightenment, of its civilization, and the gentleness of its manners, this error has been fruitful. A countrywoman of the neighbourhood of Dax having fallen ill, the friends who were with her were persuaded by a quack that her illness was the result of a spell, thrown upon her by one of her neighbours. The peasants seized on the accused individual, and after violently beating her, thrust her into the flames to compel her to dissolve the spell; there they held her in spite of her cries, her screams, and assertions of innocence, and at last drove her from the house only when she was on the point of expiring.*

This crime, which was committed eleven years ago, has lately been repeated in a village in the department of Cher. The victim, who was accused of bewitching the cattle, will probably die, owing to the atrocious treatment she has met with.† It is true that justice will pursue her murderers, and punish them; but of what use is the condemnation of a few grossly ignorant peasants, while the source of the evil remains unremoved? Has the time not yet passed for maintaining the opinion that it is well for the people to remain in ignorance, and to believe whatever is told them without examination? In the schools open to the lower classes can no one venture to expostulate, or to forewarn and forearm them against the dangers of a blind credulity? Even in the vicinity of the capital, the country districts are infested with books on witchcraft. I speak of what I have my-

* Voyez *le Constitutionnel du* 26 *Juillet*, 1826.

† Voyez *le National du* 6 *Novembre*, 1836.

self witnessed. One, amongst others recently printed, particularly attracted my observation, from the typographical character, the whiteness of the paper, the state of preservation, and the general neatness of the volume, so uncommon in the rough hands of a herdsman. With various absurdities, and extracts from conjuring books, less innocent recipes were interspersed: for example, one for the composition of the waters of Death, a violent poison, described as being capable of transmuting all metals into gold; another for procuring early abortion; and a third for a more active medicine, should the mother have felt the infant move: so true it is, as we have already observed, that lessons of crime have been almost always mixed up with the absurd fancies of sorcery!

Is this error, then, to be left to root itself out? Is it not rather the duty of the higher classes to strive against the principles that lead to it, until the progress of knowledge shall afford a guard to men of simple and limited understanding? Should they not endeavour to save those who wildly believe themselves to be endowed with supernatural power, from the consequences of this belief, and release the credulous who, through fear of this power, are tormented by anxieties equally formidable in their issue, and ridiculous in their origin? Or, is this a mere speculative question of philosophy? The age is not long past since peaceable individuals were dragged to punishment by a multitude agitated by that excessive terror, which is so much the more difficult to cure because it has no real foundation; an age in which a single word, a vague rumour, was sufficient to constitute the same person at once an

accuser, a judge, and an executioner. Do not these superstitious terrors, which convert man into a ferocious animal, place a powerful engine in the hands of those whose interest it is to excite him; whose aim is the subversion of order and of government? Should the opinions I have proffered affix upon me the charge of profaneness from some fanatical hypocrites, I can only answer, I am obeying my conscience in endeavouring to expose the shameful absurdity of a belief as contrary to the best interests of society, as to all which true piety teaches of the power, the wisdom, and the goodness of God.

## CHAPTER III.

Influence of the imagination, seconded by physical accessories; in producing an habitual belief in marvellous narrations, by music, by the habit of exalting the moral faculties, by unfounded terror, and by presentiments—Sympathetic emotions increase the effects of the imagination—Cures produced by the imagination—Flights of the imagination, effected by diseases, fastings, watchings, and mortifications—Moral and physical remedies successfully opposed to these flights of the imagination.

To the physical causes which involved pretended sorcerers in deplorable errors, was added an auxiliary which alone is sufficient to produce the evil—namely, Imagination.

Such is its power, that some men have ascribed to its wanderings the origin of all magical illusions, but this is going too far. Imagination combines the impressions it has received; it does not create.* In the phantoms of

* This definition of our author, although critically correct, yet does not embody the idea generally entertained of Imagination, which may be truly said to create; inasmuch as it selects qualities and circumstances from a great variety of different objects, and, by recombining and disposing them differently, forms a new

sleep, or the reveries of waking hours, it presents nothing which has not either been seen, or felt, or heard. Terror, melancholy, uneasiness, or pre-occupation of mind, easily produce that intermediate state between waking and sleeping, in which dreams become actual visions. Thus, proscribed by the triumvirs, Cassius Parmensis fell asleep, a prey to cares too well justified by his position. A man of an alarming form appeared to him, and told him he was his evil genius. Accustomed to believe in the existence of supernatural beings, Cassius had no doubt of the reality of the apparition; and by superstitious minds such a vision is regarded as the certain warning of that violent death which an outlaw can scarcely escape.

creation peculiarly its own. It is true that its influence is chiefly confined to objects of sight; and we must admit that "we cannot, indeed," as Addison remarks, "have a single image in the fancy, that did not make its first entrance through the sight." Were we, therefore, capable of analysing every illusion, we should most probably be able to trace, at least, many of its components, although perhaps not the whole, to objects which had previously made a lively impression upon our sight. It admits of intellectual combinations and the association of abstract ideas, without which none of those conversations and reasonings that are carried on in dreams could occur. This view of imagination, however, does not weaken the position of our author; and there can be no doubt that, in a mind not under the control which education bestows, dreams and the most extravagant illusions acquire a powerful influence in regulating its affections and exciting its passions. Much depends on the physical condition and health of the individual at the time; and, to the state of the nervous system may be ascribed the pleasurable or distressing nature of illusions, whether the effect of simple reverie or of dreaming: the influence which they exert on our conduct, or apparently on our destiny, depends much on the degree of superstitious credulity which governs the individual. —Ed.

The same explanation may be applied to the vision which appeared to Brutus, without intimidating him, on the eve of the battle of Philippi; and still more forcibly to the dream of the Emperor Julian.*

The night preceding his death, a Genius seemed to retire from him with an air of consternation. He recognised in the spectre, the Genius of the Empire, whose image might be seen in everything around him; reproduced upon the coin; reverenced by the soldiers upon the centre of his standards; and doubtless also placed in his tent. Uneasy at the famine which afflicted his troops; certain that, even in the bosom of his army, a religion opposed to his own faith raised up numerous enemies, and perhaps assassins; on the eve of a decisive battle; is it surprising that the enthusiastic disciple of the theurgian philosophy, whose doctrine assigned so important an office to the Genii, should have seen such a vision in a perplexing dream? Julian believed that he actually saw the Genius of the Empire sad, and ready to abandon him.

Let us take another example. An aged woman was mourning for a brother whom she had just lost: suddenly she thought she heard his voice, which, by a blameable deception, was counterfeited near her. Seized with fear, she declared that the spirit of her brother had appeared to her radiant with light. She would not have seen such a vision if her memory had not, from her childhood, been filled with stories of ghosts and apparitions.

These stories may be traced to the most ancient times,

* *Ammian Marcell.* lib. xxv.

and then they were not counterfeited. Let us remember that in the sanctuaries, in the time of Orpheus, they invoked the dead. Even in ancient Judea these phantasmagorical apparitions abounded. The first accounts of which were then neither founded on dreams, nor upon the wandering of the imagination, nor upon the desire of deceiving; the individuals did actually see what they asserted they had seen; and which, as they were constantly stimulated by such narrations, or the recollection of them, and overcome by sorrow yet full of curiosity, they both feared and desired to behold.

In the mountains of Scotland, and in some countries of Germany, the people still believe in the reality of apparitions, which are said to be warnings of an approaching death.* One sees, distinct from one's self, as it were,

* *Fantasmagoria, or Collection of Stories, &c.* translated from the German, (2 vols. 12mo., Paris, 1812), vol. II. pp. 126—142. These apparitions are denominated "Wraiths," or "Taisch," which means simply visions; and the persons beholding them are called seers. They are generally prophetic of evil, but not always; as births, marriages, and many other events, are said to be foretold by these beholders of the shadows "of coming events." In the Highlands of Scotland, at one period, they were generally and firmly believed. Although many seers might be in the same place or apartment, yet all of them did not see the same vision, unless they touched each other, when it became common. The gift was also inherent: it could not be taught; but Mr. Aubrey says it was taught in the Isle of Skye.

Every Highlander believes that he has an attendant genius or spirit, which is always present with him from the cradle to the grave. This spirit is a counterpart of himself, in form, in dress, and in every other respect: but, although thus peculiarly his attendant, yet the spirit may be separated from him for a time, and may perform acts, when distant from him, which his principal shall execute at

another self, a figure in every respect resembling one's own in form, features, gesticulations, and attire. To produce a similar miracle is not beyond the resources of art. It

somefuture time. Thus if the person is likely to die, or to perform some act that may endanger life, his wraith may appear to his distant friends, and thus communicate the sad news, or anticipate the event. In a few words, the Highland wraith is the *simulacrum* or *imago* of the ancient Romans. The visions may be of the spectre alone, who may be seen either by the individual himself, or by his friends or by strangers; but, when the attendant genius appears to his principal his back only is seen: on other occasions the vision may consist of a number of persons or things; for example, the whole ceremony of a funeral or a marriage may be displayed.

The inhabitants of the Western Islands and of St. Kilda were especially liable to be affected by these impressions. The apparitions were generally exact resemblances of the individuals, in person, in features, and in clothing. They attacked the individuals some months before they sickened of the disease of which they died. A man on a sick bed was visited by a lady, the wife of the clergyman of St. Kilda, and was asked by her if at any time he had seen any resemblance of himself: he replied in the affirmative, and told her that, to make farther trial, as he was going out of his house of a morning, he put on straw rope garters, instead of those he formerly used; and having gone to the fields, his other self appeared in straw garters. The conclusion of the story is, that the sick man died of that ailment; and the lady no longer questioned the truth of such presages.—(Sir W. Scott. *A Legend of Montrose*, chap. XVII. note *Wraiths*.)

In such cases, it is evident that the illusion was truly the result of imagination, operating under the influence of derangement of the nerves, the body being already in a state of incipient disease. The uneasy sensations of approaching disease would naturally awaken in a mind educated in the belief of such apparitions, the idea of some impending evil, and Imagination would readily operate in completing the illusion. [It

will be necessary in the first place to place a concave mirror, or segment of a large sized sphere, at the back of a deep closet; and to dispose a lamp at the top of the cabinet, in such a manner that

It is, also, probable that, as the wraiths or apparitions of themselves, which are seen by these islanders, always appear in the early morning, and in mountainous districts subject to fogs, they may be the result of an optical deception, such as occurs at the Brocken, one of the Hertz or Harz Mountains, and occasionally in Cumberland. St. Kilda is the most northern of the Hebrides, and consists of an unequal mountainous ridge, the highest point of which Benochan, rises 1,380 feet above the level of the sea; and, as in the Harz, the south-west wind, which prevails, brings with it fogs. As many of our readers may not be aware of the nature of the Spectre of the Brocken, we shall abridge the lucid account of it, from Gmelin[a] given by Sir David Brewster.—(*Letters on Natural Magic.*) We may remark that this spectre seems to have been observed at a very early period, as the blocks of granite on the summit of the Brocken are called the sorcerer's chair and altar; a spring of pure water, the magic fountain; and the anemone, on its margin, the sorcerer's flower,—names which are presumed to have originated in the rites of the great Saxon idol Vortho, who was secretly worshipped in the Brocken. This mountain was visited by Mr. Hane, on the 23d of May, 1797. "The sun rose at four o'clock, A.M., through a serene atmosphere, which afterwards became clouded with vapours brought by a west wind. A quarter past four, Mr. Hane, looking towards the south-west, observed at a great distance a human figure of monstrous size. His hat having been nearly carried away by a gust of wind, he suddenly raised his hand to his head; the colossal figure did the same. He next bent his body—the spectral figure repeated the action, and then vanished. It soon, however, returned in another spot, and mimicked all his gestures as before. He then called the landlord of the inn, when, after a short time, two colossal figures appeared over the spot where the single figure had previously

[a] *Göttingen. Journal der Wissenschaften*, 1798, vol. I. part III.

its light may not pass straight through, but, on the contrary, fall with all its brilliancy upon the spot where it will be necessary to place yourself, in order to obtain the best possible effect from the mirror. To this spot conduct, without his knowledge, an uneducated man, one given to reverie and the terrors of mysticism; contrive that the folding-doors of the closet shall suddenly open, and present to him the deceptive glass. He will see his own image come forth from the depth of the darkness, and advance towards him radiant with light;* and in such

appeared. Retaining their position, these two spectral figures were joined by a third; and all three mimicked the movements of the two spectators. These spectres appeared standing in the air." Similar aerial figures have been several times observed, amongst the hills surrounding the lakes in Cumberland.

These spectral illusions, so admirably calculated to impress the credulous with their supernatural origin, "are merely shadows of the observer, projected on dense vapour or thin fleecy clouds, which have the power of reflecting much light." They are most frequently seen at sunrise, when the sun throws its rays horizontally, when the shadow of the observer is thrown neither upwards nor downwards. Sometimes, "owing to the light reflected from the vapours or clouds becoming fainter farther from the shadow, the head of the observer appears surrounded with a halo;[a] which affords another reason for strengthening the belief in the reality of the spectre. The St. Kilda spectre, with its straw garters, is thus easily explained." We refer our readers to Brewster's little volume, to which we are indebted for the above explanation of the Spectre of the Brocken.

Time and superior education, however, will gradually expel such superstitions: they have ceased to prevail even at St. Kilda.—Ed.

* "I approached the closet; the two doors opened without the least noise, the light which I held in my hand was suddenly extinguished, and, as if before a mirror, I saw my own image advance

[a] *Brewster*, l. c. pp. 153, 154.

a shape that he will think it possible to take hold of it, but in advancing for that purpose it will disappear. He cannot explain this vision naturally; he does not attempt it; he has seen it, actually seen it; he cannot forget it. The recollection of it pursues him, besets him, and soon, perhaps, his imagination becomes so excited that the phenomenon is spontaneously reproduced without the aid of the exterior cause.* The disorder of the mind is communicated to the nerves. The credulous man languishes, wastes away, and at last dies. The records of his unhappy end survive him. Invalids, or people with a tendency to disease, hearing the legend repeated, meditate upon it; their reveries are impregnated by it; and they end at last, by seeing the vision which they have heard related from their youth; and being persuaded that it is the forerunner of death, they die of their own conviction.†

from the closet, the light which it spread illuminating a large portion of the apartment."—*Fantasmagoriana*, tom. II. pp. 137, 138.

* This explanation is perfectly correct in reference to spectral illusions within a house or a temple; but those of the second sight seen in the morning, and in the open air, can only be explained as in the foregoing note.—Ed.

† No better explanation can be given of the fulfilment of the prediction of these seers: death, when predicted, and the prediction when believed will take place. Such creeds assimilate every event to themselves; even the seer himself is the dupe of his credulity, a circumstance less wonderful than the confessions of witchcraft, or of the insane German *werewolf*, Peter Stump, who murdered sixteen persons, from an idea that he was one of the sorcerers termed *werewolves*, who, by means of an ointment and girdle, were believed to become real wolves; tearing to pieces and devouring men, women, and children. This wretched maniac was inhumanly tortured with red-hot pincers, and broken on the wheel.—Ed.

If such is still human credulity, can we suppose that, in less enlightened times, the Thaumaturgists, endowed with so many means of acting upon the imagination, would have allowed so powerful an instrument for extending the empire of the marvellous to have remained idle.* Supported by some real, but extraordinary facts, the recital of prodigies and apparent miracles everywhere governed credulity; or rather it formed, as in the present day, almost all the instruction allotted to the vulgar, and prepared their eyes beforehand for seeing everything, their ears for hearing everything, and their minds for believing everything.

Thus prepared, thus excited by some powerful cause, where will the influence of Imagination stop? By turns it is terrible and seducing, but always ready to confound us with unforeseen phenomena, and intoxicate us by fantastic marvels; to suspend or excite the action of our senses to the highest possible degree; to withdraw the play of our organs from the empire of our will, and the regular course of nature; to impress upon them emotions and an unknown strength, or to render them rigid and immoveable; to excite the mind to folly, or even to frenzy; at one time creating objects far above the tameness of humanity, and at another raising terrors more dangerous than the perils which they represent; such are the flights, such the freaks of the Imagination; and ruled, in its turn, by the disorder fallen upon our physical functions, it originates fresh errors, new fears, more powerful

* See chap. XIII. upon the subject of the optical illusions produced by the ancient Thaumaturgists.

deliriums, and torments; until remedies purely material, by curing the body, restore to the mind that calm which the diseased condition of the nervous system had taken from it.

What pretended miracles would not a skilful Thaumaturgist work with a power susceptible of such various application, and endowed with so irresistible an influence? Let us not speak of contracted minds only; or of men as ignorant and weak as the unfortunate beings whose miseries we have just retraced; let the strongest minded man suppose himself, unconsciously, exposed to every cause which can act upon his imagination, will he, we may inquire, dare to affirm that these influences will not operate upon him; that his moral strength will triumph, and that there shall be no perturbation in his heart, no confusion in his thoughts?

The ancients were not ignorant of the advantages which, under various relations, could be taken of the influence of the Imagination. This fascinating and powerful agent explains an immense number of the wonders described in their histories. Our path, however, is traced out, namely, to render these marvels credible, by opposing to them analogous facts observed in modern times, facts in which imposture has not been more suspected than the intervention of a supernatural power.

No less calm than persevering in her mystic reveries, the celebrated Madame de Guyon declared to Bossuet, her accuser and judge, and also related in her life,* that she had received from God such an abundance of grace

* *Vie de Mme. de Guyon écrite par elle-méme,* tom. II. chap. XIII—XXII.; tom. III, chap. I.

that her body could not bear it; and that it was necessary that she should be unlaced and placed upon her bed, in order that some other person should receive from her the superabundance of the grace which filled her. This communication, she asserted, was effected in silence, and often upon the absent; and could alone relieve her feeling of excess. The Duke de Chevreuse, a man of serious and austere manners, also affirmed to Bossuet that he had felt this communication of grace when seated near Madame de Guyon; and he ingenuously asked the prelate if he did not experience a similar sensation.* Entitled at once to ridicule, and equally to compassion, these two persons were not very unlike the Prophets and Pythonesses, who are described to us as being so subjugated by the God whose presence filled their whole being, as to be forced to utter the oracles, which he himself placed in their mouths, to be announced to the world.

Let the excitement increase, and man will fall into a state of slavery capable of making him not only believe in assumed miracles, but in his power of working them, because it withdraws him as much from the empire of reason as from that of physical impressions. This ecstacy has attracted the attention of physiologists, and provoked some learned researches, the results of which will probably be confirmed by ulterior observations.

To examine it in this light would carry us too far from our subject; we must, therefore, limit ourselves to those facts immediately connected with it. We are assured

* Burigny. *Vie de Bossuet*, (12mo. Paris, 1761) pp. 274, 275 et 280.

that the Hindoos can fall at pleasure into ecstacy, a state to which the Kamschatdales, the Jakoutes, and natives of North and South America are very prone. It has been observed, that since the persecutions exercised by Europeans in the formerly happy countries of Tahiti and the Sandwich Islands, the imagination of the followers of the ancient religion has been much excited.* This ecstacy, or trance, is in some degree a benefit to an ignorant and superstitious people; it gives them instantaneously the power of forgetting their miseries, beneath the weight of which they drag on a languishing existence. We may, in this point of view, compare it to intoxication, to the heavy torpor produced by stupifying drugs, which have been sometimes used by unhappy beings to enable them to bear the agonies of torture.† Volney attributed the extraordinary courage exhibited in the midst of most frightful torments by the natives of Northern America, to the effects of a state bordering on ecstacy.‡

* Ferdinand Denis, *Tableau des Sciences Occultes*, pp. 201—205.

† See chap. I. vol. II.

‡ *Œuvres complètes de Volney*, tom. VII. pages 443 — 450. The Editor is of opinion, that this degree of insensibility to corporeal suffering, depends on directing the mind powerfully to some object, or train of recollection, capable of abstracting it wholly from the sensations produced upon the nervous system by extraneous impressions. It is well known that directing the mind to the seat of disease, will augment both the diseased action going on in the part, and also increase to a degree of acute suffering any pain previously felt in the part. Thus, independent of the counter-irritation produced by a blister, much of its beneficial influence arises from the attention being directed to a new seat of pain. On this

Ecstacy has, above all, the advantage of supplying, to the believer, all that the coldness of the testimony has left defective in the descriptions of celestial happiness. Man being, by reason of his weak nature, susceptible of prolonged pain and short enjoyments, can much more easily imagine the torments of the infernal regions than the joys of heaven. This ecstacy does not describe these pleasures, nor prove their future existence; it causes them to be actually tasted. That the ancients should have studied the cause and known the power of this ecstatic fervour is hardly to be doubted;* and if it was necessary to lead some ardent imaginations by secondary agents, the Thaumaturgists had at their control the pomp of ceremonies, the splendour of illusions, the charm of pageants, and the seductions of melody. Music alone was sufficient to plunge many young and tender souls into the most delicious illusions. It was from that source that Chabanon† twice in his youth experienced feelings similar to the descriptions of the ecstacies of the Saints. "Twice," said he, "when listening to the notes of the organ or to sacred music, have I thought myself transported into heaven; and this vision had something so real in it, and I was so carried out of myself while it lasted, that the actual presence of the objects could not have

principle, Protestant martyrs, by concentrating their thoughts on the eternal triumphs they are about to enjoy for their constancy in their faith, have felt little or nothing under the tortures of the Inquisition, or the consuming flames of the stake.—Ed.

* Tertullian. *De Ecstasi.*

† Chabanon. *Tableau de quelques circonstances de ma vie, &c. Œuvres posthumes*, pp. 10, 11.

had upon me a stronger effect." Had this young man, in less enlightened times, been placed under the discipline of Thaumaturgists, who were desirous of cultivating this inclination to reverie, the momentary ecstacy would have become an actual durable vision which he would no more have doubted than his own existence, and the truth of which he would have attested with all the obstinacy of a convinced man, and all the enthusiasm of a martyr.

We have already spoken of the magical influence of harmonious sounds.* We can also recal to remembrance how Alexander and Erick-le-bon† were excited to a deadly anger by warlike songs. The feeling experienced by these two heroes is still produced upon soldiers when marching to battle to the sound of warlike instruments.

Alone, without exterior aid, without physical impressions, the imagination can warm itself to a degree of fury, to the pitch of delirium.

To be convinced of this fact, it will be sufficient to attempt upon ourselves a similar experiment, and in disposing ourselves either for or against any object occupying our thoughts, we shall be surprised at the

* Refer to chap. VII. vol. I.

† Saxo Grammat. *Hist. Dan.* lib. XII. pp. 204, 205. Erick le Bon, or St. Erick, was a Swedish nobleman of the name of Indwardun, connected by alliance with the Royal Families of Sweden and Denmark. He was elected to the throne of Denmark in 1155. He marched against Finland, which he subdued, solely to convert the inhabitants to the Christian faith; and left the Bishop of Upsal in the country to found churches, whilst he himself framed a code of laws for them. He was killed by a party of Danes, who had unexpectedly landed on the coast, under Prince Magnus, in 1161. The fact mentioned in the text merely demonstrates the highly excitable condition of his nervous system.—ED.

degree of anger or tender feeling to which this voluntary illusion would soon lead us. Let us ask ourselves whether it is not necessary for the dramatic author to identify himself with the impassioned character he personifies, in order to portray the real expression of his feelings. Where such is not the case, eloquence and poetry offer him but insufficient resources; we perceive, at once, that it is he, and not his hero, that speaks. The actor, in his turn, cannot succeed if he does not actually become the character he represents, as far at least as the theatrical regulations permit him. The costume, the attendance, the presence, and language of the personages, whom he is to struggle against or defend, second him in his illusion; he is moved, before he dreams of having excited our emotions; his cries come from his heart; his tears are often not feigned. What then would be the effect, if a personal interest actually deep and present were to be attached to the passions and sentiments he expressed? He would then actually be what he assumes, and with more truth, perhaps, or at least more energy, than the personage whose transports he reanimates. Let us go farther, and freeing the imp assioned being from the restraint imposed by public observation, place him in the situation in which I have several times observed a young woman placed, who was endowed with a powerful organization and a very excitable and lively imagination. It would have been more than imprudent to have confided to her the character of an heroine, chanting the song of war, and precipitating herself armed upon the enemies of her country. This single thought, a weapon of which she might possess herself, some words, some verses that she

might recite, would suddenly intoxicate her with fury strangely contrasting with her gentle and amiable disposition. The most loved being would not long have been safe from her blows. This sudden and formidable excitement inspires the belief that what has been related of the Scandinavian heroes is perfectly credible. "They were seized, from time to time, with a fit of frenzy. They foamed with rage, made no distinction of persons, but struck at random with their swords, friends, enemies, trees, stones, animate and inanimate objects; they swallowed burning coals, and threw themselves into the fire. When the fit was at an end, they suffered long from extreme exhaustion."* If as the author I have just quoted seems to think, this was the effect of an intoxicating beverage, the Sagas which contain so many examples of the fact, would sometimes have alluded to the causes of it. I have no doubt that these furious movements proceeded from the habitual state of the Imagination rendering it liable at times to an excessive excitement. The peculiar sentiments of these warriors, who knew no happiness but that of seeing the blood of their enemies or their own blood flow; and whose paradise was open only to heroes dying in battle, were quite sufficient to excite this transient frenzy: we are nearly as much astonished that they were not continually a prey to it.†

* Depping. *History of the Expeditions of the Normans, and their Settlement in France in the* 10*th century*, vol. 1. p. 46.

† The same degree of wild enthusiastic fervour was lately witnessed by a British officer, who was travelling in Algeria, at the festival of a sect termed Arouates. The ceremonies consisted in the most frantic exhibition of actions almost preternatural, but evidently the result of a highly excited imagination.—Ed.

Will not an excess of terror sometimes produce the same delirium as an excess of courage? Why not, if reason is equally disordered by both? The Samoyedes, says a traveller, are exceedingly susceptible of fear.* If they are unexpectedly touched, or if their minds are struck by some unforeseen terrifying object, they lose the use of their reason, and are seized with a maniacal fury. They arm themselves with a knife, a stone, a club, or some other weapon, and throw themselves upon the person who has occasioned their surprise or fright; and if unable to satisfy their rage, they howl and roll upon the ground like an enraged animal. We must here observe, that the original cause of these peculiarities is the fear the Samoyedes entertain of sorcerers; and the unhappy beings, tormented by the delirium which is the result of it, are consequently looked upon as sorcerers. What a fertile mine for the exploits of a worker in miracles!

More generally fear places the weak man completely in the power of him who inspires him with the passion. If, as many observers have thought, fear is the real operating principle in all that has been related of serpents and other animals charming the feeble bird they intend to make their prey, the look of a strong threatening man ought to exercise a similar influence over weak minds; nor can they, in fact, withstand it. Their enchained faculties leave them powerless, senseless, under the influence of the charm. In the legends of every country there is nothing more common than the

* Wagner. *Memoirs of Russia, &c.* p. 207.

inevitable power which the fascinating glance of a magician has exercised. This power is not entirely chimerical; although mean, or common in its origin, yet it has an unbounded ascendancy over the timid Imagination.

And does not, we may inquire, man himself conspire to aid such an ascendancy, when, at the very moment that he is attempting to fortify himself by plausible reasonings, he spontaneously gives himself up to deadly terrors. Without any exterior circumstance to cause his folly, a weak mind (often so on this point only) is filled with one fixed idea; for example, that such or such an age will inevitably lead to the end of life! Such a disease must terminate fatally! How many of these vain presentiments have rendered inevitable the event which seemed to justify them. They operate continually and destructively upon the weakened nerves, which would have recovered their natural vigour if they had not been influenced by these mournful apprehensions.

If fear, instead of spontaneously rising in a soul where reason can still struggle against it, should be the result of a formidable power, the limits of which we dare not assign, its effects will be no less sure and terrible than those of steel and poison. To prove this assertion, a recent example can be joined to the testimony of all the facts offered to us in ancient history. There exists in the Sandwich Isles a religious community pretending to a power, obtained from heaven by the prayers addressed to it, of destroying every enemy they wish to overcome. If any one incurs its hatred, they announce to him that imprecations against him will be commenced; and not

unfrequently this declaration is sufficient to cause the unfortunate individual exposed to their anathema to die of fright, or to commit suicide.*

The influence that sympathy and a propensity to imitation† exercise upon the organs, is also felt upon the

* Lisianski. *Voyage round the World in* 1803—1806. *Bibliothèque Universelle, année* 1816. *Littérature.* tome III. pp. 162—163.

† A thousand instances might be brought forward to demonstrate the influence of imitation. One of the most remarkable was the dancing mania which prevailed all over Europe in the fourteenth century, and which actually grew into a real epidemic. It is only requisite to relate two or three instances of more recent date in this kingdom. At a cotton manufactory, at Holden Bridge, in Lancashire, a girl, on the 15th of February, 1787, put a mouse into the bosom of another girl, who was thereby thrown into convulsions, which lasted for twenty-four hours. On the following day, six girls, who had witnessed these convulsions, were affected in a similar manner, and on the 17th six more. The alarm became so great, that the whole work was stopped, under the idea that some particular disease had been introduced in a bag of cotton opened in the house. On the 18th three more and on the 19th eleven more girls were seized. Three of the whole number, namely twenty-four, lived two miles from the factory, and three were at another factory at Clitheroe, about five miles off, but who were strongly impressed with the idea of the plague, as the convulsions were termed, being caught from the cotton. Dr. Sinclair relieved all the cases by electrifying the affected girls. The convulsions were so strong, as to require four or five persons to hold the patients, and to prevent them from tearing their hair and dashing their heads on the floor or on the walls.[a]

Upwards of a century ago, a woman in Shetland, labouring under epilepsy, was attacked with paroxysms of the disease in the

[a] *Gentleman's Mag.* 1787. p. 268, quoted in *Hecker's Epidemics*, trans. by D. Babington, p. 141.

Imagination like the contagious effects of laughter, yawning, tears, depression, and enthusiasm. A widow who was affected with an hysterical melancholy, committed actions so strange that she was supposed to be possessed with a demon. It was not long before some young girls about her were similarly attacked. They were cured as soon as they were taken from her; and the widow herself, under the treatment of an able physician, recovered her reason with her health.* How many stories of demons could be reduced to as few words. We should be wrong if we supposed there was nothing but deception in the history of the convulsions of St. Medard,† and those of other people who fell at once under the influence of the evil spirit. The greatest number of these men were, on the contrary, honest in intention, but necessitated to this imitation from their excitable organization, weak minds, and heated imaginations. The

church; the result was, that many adult females and some children became affected in a similar manner; and the disease has continued to occur very frequently, ever since, during divine service. When Dr. Hibbert visited the Island of Unst, and was attending the kirk of Baliasta, a female shriek was heard; but the person was carried out by the desire of the clergyman, who also requested any woman, who felt that she might be similarly affected, to leave the church. Dr. Hibbert says, "On leaving the kirk, I saw several females writhing and tossing about their arms, on the green grass."[a]—Ed.

* Fromann, *De Fascinatione*, &c. p. 55.

† St. Medard was a native of Salency, in Picardy. He was descended of a noble family, and flourished in the fifth and sixth centuries. He was inaugurated Bishop of Noyon in 530, and died in 561, not at a very advanced age.—Ed.

[a] *Description of the Shetland Islands*. 4to. p. 401.

poets have probably not exaggerated in their descriptions of the fury with which the Bacchants were seized when celebrating their orgies. The greater part of these Bacchants were more morally than physically intoxicated. They only imitated involuntarily the transports of some priestesses; but whether the latter kept within the bounds of and played an arranged part, or whether, placed under the influence of the Imagination, excited by spirituous liquors, songs, instruments of music, and the cries, and the mystic disorders that surrounded them, they were themselves the first to feel that all which their example inspired in others, may be questioned.

The Imagination is not always hurtful, for how many unhoped-for, sudden, and prodigious cures have been effected by it. Our medical books are filled with facts of this nature, which among an unenlightened people would easily pass for miracles. It requires also some effort of reason to see nothing but what is natural in these sudden effects of the influence of Imagination. Man is so accustomed to look for the marvellous wherever the cause does not strike upon him as forcibly and closely as the effect.*

* In the fourteenth century, a disease appeared in Europe which induced those afflicted with it to leap and dance. It was called St. Vitus's dance, from a firm-rooted belief that the shrine of St. Vitus possessed the power of curing it; and, solely from the influence of this belief on the mind, many were cured. The legend whence this belief arose, taught that St. Vitus, before he bent his neck to the sword, at his martyrdom, prayed that the Deity would protect from the dancing mania all who should solemnize the day of his commemoration, and fast on its eve; whereupon a voice from heaven was heard saying, "Vitus, thy prayer is accepted."

[The

Animal magnetism, in which all the real phenomena

The cures effected by the Royal touch, and the money (716, see *Excerpta Historica*, p. 87, etc.) given to each person touched, were due solely to the influence of confidence operating as a powerful tonic on the animal system, labouring under the relaxation on which scrofula chiefly depends: the anticipation also of benefit caused an increase of nervous energy equivalent to that effected by physical excitants. The celebrated Flamstead, the astronomer, when a lad of nineteen, went into Ireland to be *touched* by a celebrated empiric, named Greatracks, who cured his patients without medicines, "by the stroke of his hand." Flamstead says, "he was eye-witness of several cures," although he himself was not benefited. (Bailey's *Life and Observations of Flamstead.*) He awaited, but did not anticipate the result.

A more impudent quack than Greatracks has seldom appeared; he flourished in the seventeenth century. The belief in his power general, from the most highly born and educated, to the most abject and illiterate mendicant, all sacrificed at the altar of Credulity, and relied on the healing touch of Greatracks. In a letter to Lord Conway, who sent for him from Ireland on account of the health of Lady Conway, this prince of impostors thus expresses himself;—"The virtuosi have been daily with me since I writ to your honour last, and have given me large and full testimonials, and God has been pleased to do wonderful things in their sight, so that they are my hearty and good friends, and have stopped the mouth of the Court, where the sober party are now most of them believers, and my champions. The King's doctors, this day, (for the confirmation of their Majesties' belief) sent three out of the hospital to me, who came on crutches; but, blessed be God! they all went home well, to the admiration of all people, as well as the doctors. Sir Heneage Finch says, that I have made the greatest faction and distraction between clergy and laymen, that any one has these thousand years." Such was his boast; there is retribution in this world as well as in the next: the reputation of Greatracks soon afterwards declined as suddenly as it had risen.

[But

are produced by an excited imagination, was first cried up by charlatans as a physical agent; and has become in the

But we need not go to the seventeenth century for examples of the power of Imagination as a curative agent. In the early part of the present century, a Miss Fancourt was cured of a spine complaint, in answer to the prayers of a Mr. Greaves. She had been ill eight years, and during the last two years had been confined to her sofa. She was apparently cured; she again walked; and the only question was, how was the cure effected? Dr. Jervis, a very sensible physician, remarks, "that her disease had probably been some time previously subdued, and only wanted an extraordinary stimulus to enable her to make use of her legs. Both my friends, Mr. Travers, and the late Mr. Parkinson, concurred in thinking that there had been nothing in the illness or the recovery but what might be accounted for by natural causes." Mr. Travers, in a letter on the subject, says—"Credulity, the foible of a weakened, though vivacious intellect, is the pioneer of an unqualified and overweening confidence; and thus prepared, the patient is in the most hopeful state for the credit, as well as the craft, of the pretender." On the same principle are to be explained the cures performed by the metallic tractors; mustard seed; brandy and salt; the prayers of Prince Hohenlohe; the embrocations of St. John Long; the miracle performed by Mesmerism on my talented friend Miss Martineau; and a thousand cases in which hysteria played a notable part, and which only required full confidence in the prescriber to effect a complete cure.

The means employed as the remedial agents in these cases are very varied; but they were all fully confided in by the patients; and in that confidence lies the secret of their success. Music, as in the dancing mania, has often performed wonders. Democritus affirms that diseases are capable of being cured by the sound of a flute, when properly played. Asclepiades employed the trumpet to cure sciatica: its continued sound, he affirmed, makes the fibres of the nerves to palpitate, and the pain vanishes. Even the great Bacon believed in the power of charming away warts.—Ed.

hands of fanatics and impostors one branch of modern Theurgy.*

" When the imagination of an invalid has been much struck by details of the efficacy of some remedy which is naturally inefficacious, it may in such a case become truly salutary. Thus, " an invalid may be relieved by magical ceremonies, if he be convinced beforehand that they will effect his cure."† Have not these words of an ancient physician been verified in the happy applications of animal magnetism, Perkinism, the sympathetic powder, and jugglings of the same kind, that both in ancient and modern times have been seen by turns to triumph or fall into contempt ?‡

* The magnetic sleep, and the miraculous effects it produces, were predicted by the enthusiast Swedenborg, in the year 1763, when he said. " Man may be raised to the celestial light even in this world, if the bodily senses could be entombed in a lethargic slumber," &c. (*Of Angelic Wisdom*, p. 357.) This conclusion belongs to the partizans of Swedenborg; but they hastened to add, that we must not implicitly believe all that the *somniloquists* or *somnambulists* have stated, that all is not good that is revealed: they depend upon that verse of St. John's 1st Epistle, chap. iv. verse 1, " Believe not every spirit, but try the spirits, whether they are of God." They recommend, above all, no dependance upon those somnambulists who would *dispute* with Swedenborg his office of messenger of God, or who would speak against his doctrine. (Daillant Latouche. *Abrégé des Ouvrages de Swedenborg*, pp. 55, 58.

† *De Incantatione libellus* (inter libros Galeno ascriptos), " *Quando mens humana rem amat aliquam," etc.*

‡ It would be well if they always fell into contempt; but wherever ignorance and superstition enslave the mind, there credulity erects her temple. At so late a period as 1837, the Honourable Robert Curzon, jun., travelling in the East,

The Imagination, although having so powerful an effect upon our bodily organs, is in its turn subjected to their deranging influence when disease has disturbed the harmony of their functions.

Four hundred years before the Christian æra, Carthage was a prey to one of those endemics which the ancients denominated *Plagues:* agitated by a frenetick transport, the effect of the disease, the greater part of the inhabitants flew to arms to repulse an imaginary enemy, who they believed had penetrated into the city.*

The shipwrecked mariners of the Medusa, when exhausted by fatigue, hunger, and affliction upon the raft to which they had been so cruelly abandoned, experienced ecstatic illusions, the charm of which contrasted fright-

arrived at Nagadi, and had a conference with the Bishop. In the midst of it, a tall figure, with a heavy chain tied to his legs, entered the apartment, waving a brazen censer in his hand, with which he made an attack upon the party, and was with some difficulty secured, and carried off. "He was the son of the Bishop, and, being a maniac, had been *chained down before the altar of St. George,—a sovereign remedy* in these cases; only he pulled up the staples of his chain, and came away with the censer, before his cure was completed."[a] Is it wonderful, indeed, that the deceptions of the Asclepiades should have succeeded, when we observe Charlatanism flourishing and patronised by the aristocracy, and even by the educated and learned, in our own times. In the temples, during the influence of the Asclepiades in Greece, the patients slept on goat-skins; and when they were supposed to be asleep, but known to be kept awake by the novelty of their situation, a priest, dressed as Æsculapius, accompanied by young girls, trained to represent the daughters of the God, entered and delivered a solemn medical opinion, which the result confirmed in proportion to the credulity and intellectual imbecility of the hearers.—Ed.

* *Diodod. Sic.* lib. xv. cap. ix.

[a] *Quarterly Review*, vol. lxxvii. p. 53.

fully with their desperate situation.* In these two instances, the moral disorder may have been augmented by sympathy and the propensity to imitation. But more recent and individual instances are not wanting. The mother of the Regent Duke of Orleans relates, in her correspondence, an anecdote of a lady of her acquaintance, which seems the height of absurdity, yet has nothing improbable in it if we look upon it as a vision produced, during the lying-in of a woman, by the delirium accomp anying the milk fever.† A young man, victim to bad habits, had fallen into a marasmus;‡ he was tormented with phantoms, and complained that he heard the sentence of his eternal condemnation perpetually sounding in his ears. General Thiebault, a man equally distinguished by his mind and military talents, during the weakened state which followed an inflammatory disease, was attacked by visions, the more strange from the fact of his enjoying undiminished reason, and that none of his senses were altered. The fantastic objects, nevertheless, which annoyed him, and which he knew did not exist, struck so forcibly upon his sight, that it was as easy for him to enumerate and describe them as the real objects by which he was surrounded.‖

* *Relation du naufrage de la Méduse.* 1st edition, pp. 72—73.

† *Mémoires sur la Cour de Louis XIV,* &c. edit. 1823, pp. 74—75.

‡ The patient was under the care of Dr. Marc, in 1843.

‖ M. le Lieutenant-General Thiebault has permitted me to relate his case. Let us observe that similar hallucinations have been experienced by very important persons. The learned Gléditsch, three hours after noon, clearly saw in a corner of the Academy-hall, at Berlin, Maupertuis, who had died at Basle some time before. He attributed this vision to a momentary derangement of his organs; but in speaking of it, he affirmed that the

We shall be little astonished to see how the Thaumaturgists, in every country, debilitated the corporeal organs in order to rule the Imagination more surely. Mortifications and fasts were an essential part of the ancient initiation, to which it was absolutely necessary to submit before receiving the answer of several oracles, and above all, of those which were revealed only in dreams.*

We cannot be ignorant how the disposition for, and liability to see phantoms, is increased by an irritation of the visual organs, caused by long vigils or by a steady contemplation of any luminous body, particularly when the mind is disordered or the body weakened. The principal trial to which the Sannyassi (meditative Hindoos) are subjected, is that of looking fixedly at the sun. It is not long before they have visions, see sparks of fire, flaming globes, meteors; the end of which is, not unfrequently, that they lose their sight, and even their reason.†

vision was as perfect as if Maupertius had been placed living before him.—(D. Thiebault. *Recollections of a Residence at Berlin*, vol. v. p. 21. 5th edition.) "The maternal grandfather of Bonnet, when in perfect health, independent of all exterior impressions saw the figures of men, birds, and boats produced, moving, growing, decreasing, and disappearing. His reason could not have been affected, as he was quite aware it was an illusion." —(Laplace, *Essai Philosophique sur les Probabilités*, pp. 224—226.)

* Before consulting the oracle of Amphiaraus, at Oropas in Bœotia, the votaries fasted a whole day, and received the answer in a dream. *Philostrat. vit. Apollon.* lib. II. cap. IV.

† Dubois. *Mœurs et Institutions des Peuples de l'Inde.* tome II. pp. 271—274. The Sannyasi are Brahmans of a very strict order, who

To these powerful auxiliaries, the strength of which is increased by solitude and darkness, is added an intoxication produced by the sacred food and drinks; and thus, already a prey to beliefs, to fears, and to superstitious hopes, and given up to so many causes of excitement, how would it be possible for any man, even the greatest master of his reason, to defend his Imagination from the power of such superstitions? And without the assistance of other artifices, would not the union of these means be sufficient to make a superstitious man, shut up in a cavern without an opening, such as has received the name of the *Purgatory of St. Patrick*, believe that he was in an immense place, surrounded by all those apparitions which the monks of Ireland had beforehand promised to his terrified imagination ?*

have renounced the society of wives and children, altogether forsaken the world, and adopted the vow of mendicity, to subsist solely upon alms. The duty of a member of this sect is to seek solitude; to subdue every passion; to shun the slightest approach to pleasure, or any earthly enjoyments; and to concentrate his whole mind in meditation upon holy things, and, among others, the constant perusal of the Veda. The penances to which he is to subject himself are numerous and truly ridiculous. Thus—he is to slide backwards and forwards on the ground; to stand a whole day on tiptoe; to continue a whole day in motion, rising and sitting alternately; to expose himself to hot fires in the warmest weather; to look fixedly for hours upon the sun; and to feed entirely on roots and fruits. Such are the rules imposed on a Sannyasi; and such the idea of human perfection, which Superstition has impressed on the minds of her Hindoo votaries. Under such discipline, in addition to that mentioned in the text, it is not surprising that visions should be seen and believed.—Ed.

* Gerard Boate. *Natural History of Ireland*, pp. 137—141, of the French translation. Twiss. *Travels in Ireland*, pp. 128—129.

Instructed by observation of the intimate connexion between every part of our being, the ancients well knew that the Imagination could produce diseases apparently supernatural, which often defied the *art*, and always the precautions of the physician; and that also, on the contrary, it could effectually struggle against a really diseased state of the organs, with a success equal to that effected by physical remedies. They armed the Imagination against physical evils, and forced it to be productive of as much benefit as it sometimes was of evil.

During the dog-days in Egypt, an epidemic disease, which is attributed to the influence of the atmosphere, prevails. As a remedy for it, the priests were accustomed, after solemn ceremonies and sacrifices, to light numerous wood piles with fire taken from an altar dedicated to an ancient deified sage.* This proceeding was no doubt useful, as it increased the circulation of the air, and tended to purify it; but fire taken from the domestic hearth would have been as efficacious. In this instance, therefore, they addressed themselves also to the Imagination. These religious mummeries, and the sacred fire, tended to increase the persuasion among the people, that a protecting God would come to their relief. The Roman people were cut off in numbers by a pestilential disease, which would not yield to any known remedy: the Pontiffs, therefore, ordered, in the name of Heaven, a celebration of the public games and festivals.† This remedy, which appears so strange to us, was, neverthe-

* Aelian. *Var. Hist.* (quoted by Suidas) verb. *ἐναὺειν*—*Γαχεν Γερογραμματεῖς.*

† Valer. Maxim. lib. II. cap. IV. § IV. A.U.C. 389.

less, found so efficacious, that it was resorted to more than once. Let us suppose that the endemic disease* was of the nature of those pestiferous fevers, which often resulted in Italy, from the crowding together of a numerous population in confined dwellings; or from privations and fatigue; and also from variations of the temperature, to which the citizens were exposed during their military expeditions. Under such circumstances, a general terror would be spread; it would freeze every soul, and thereby add doubly to the deadly power of the scourge. Were not the games which kept the population in the open air, and agreeably occupied the mind; the festivals, or numerous sacrifices of animals, presenting means of substituting a more substantial and wholesome food, to that provided by habitual parsimony; and the ceremonies which reassured the Imagination, and promised that the Gods would throw a compassionate glance on their obedient worshippers; sufficient to combat the progress, and accelerate the disappearance of the malignant contagion. To prostrate the people before the altar, believing that they owed to the Gods their miraculous deliverance, was a course frequently resorted to; and when cures were effected, it was indeed a miracle in the sense of the ancients; an immediate, but assuredly not a supernatural benefit from the Gods.

We could recal to remembrance, without trouble, innumerable examples of physical remedies employed to cure supernatural diseases, as far, at least, as we should continue to translate into modern meaning the ancient ex-

* Endemic diseases are those that originate in some circumstance connected with the locality in which they appear: they are not contagious.—Ed.

pressions. As every benefit was ascribed to the benevolence of the Gods, so were all evils supposed to emanate from their vengeance, or from the malevolence of evil genii. What ought we to recognise in the evils attributed to this latter cause? Nervous infirmities, epilepsy, hysteria, the symptoms of which were developed, or at least increased, if not originated, by a disordered Imagination. Hellebore cured the daughters of Proteus of a madness with which the anger of the Gods had afflicted them. When the Samoyedes are by terror thrown into a paroxysm of frenzy which they regard as the effect of enchantment, and as the characteristic sign of sorcery, they are cured by having the hair of the rein-deer burnt under their nostrils.* The Hebrew exorcists ejected demons from the human body by the smell of the smoke of the burning Baaras plant. Aelian described this plant under the name *Cynopastes;* and Josephus attributed to it the power of expelling demons and of curing epilepsy.† The mode of treating these maladies did not differ greatly from that now employed. Like the Hebrews, the Thaumaturgists of antiquity, the Samoyedes, and those magi who, two centuries ago, dared to oppose medical art by their pretended magical *fascinations*,‡ we also use fumigations and ammoniacal odours when fighting against diseases

* Wagner. *Recollections of Russia*, p. 207.

† Aelian. *De Nat. Animal.* lib. XIV. cap XXVII. One of the Sea Algæ, which the same author compares to the Cynospastos (*ibid. ibid.* cap. XXIV.), contained a very strong poison. It was perhaps this last quality which induced the Thaumaturgists to reserve to themselves the exclusive possession of it.

‡ See the indication of this medicine in Fromann, *De Fascinatione*. pp. 955–958.

of the nature of epilepsy, hysterics, hypochondriasm, and those mournful results of a disordered Imagination under which reason is prostrated. The apparent miracle would disappear, if we were to recal to mind that it was the custom of the ancients to personify the principles of good and evil.

## CHAPTER IV.

Medicine formed a part of the Occult Science: it was not long exercised by the priests; diseases were supposed to be sent by malevolent Genii, or the irritated Gods; the cures were considered miracles, or works of magic—Credulity and the spirit of mystery attributed marvellous properties to inanimate substances; and Charlatanism assisted this species of deception—Counterfeit cures—Extraordinary abstinences—Nutritious substances taken in an almost imperceptible form—Apparent Resurrections.

CARRIED away by our subject, we have already entered that province of science in which promises will always have the greatest power over the Imagination, namely, the science of the physician.

Medical science is, although it may be thwarted by unforseen anomalies, founded upon much positive knowledge. It has not, however, been able to overcome the diseases of the intellect in a manner equal to its influence over those of the body; neither has it placed us upon our guard against those numerous secrets used by the Thaumaturgist to disarrange the play of our organs, to deceive our senses, and to terrify our imaginations.

Although originating in the temples, and revealed as an emanation from the Divine Intelligence, yet medicine did not infringe upon the province of other sacred sciences. In treating of it, we need not diverge from the empire of the wonder-workers; for, every where, cures

were long esteemed miracles, and physicians were regarded as priests or as magicians.*

Physicians, under some circumstances, were even looked upon as Gods. In Armenia,† under the name of Thicks or Haralez, the Gods were said to revive those heroes who died in battle, by sucking their wounds. Angitia,‡ the sister of Circe, established herself in Italy only in order that she might merit altars there, by applying her salutary science to the diseases that desolated that country. Formerly in Greece, and even after the siege of Troy, the sons of the Gods and the heroes alone understood the secrets of medicine and surgery;‖ and even to a late period Esculapius, the son of Apollo, was there worshipped as a deity.§

In Egypt, Theurgy divided among thirty-six genii, inhabitants of the air, the care of the different parts of

* In the earliest periods of society the character of priest and physician is always combined in the same person. The Payes of Brazil are priests, exorcists, and physicians; they cure diseases by sucking the affected part, and spitting into a pit, to return to the earth the evil principle, which they assert is the cause of disease. The Hebrew priests, according to the Mosaical account of the Jews, were also physicians; the Aslepiadæ, the priests of Æsculapius, were the first physicians of the Greeks; and the Druids those of the northern nations.

† Cirbied. *Mémoires sur l'Arménie. Mémoires de la Société des Antiquaires de France,* tome II. p. 304.

‡ Solin. cap. VIII.

‖ Aelian. *De Nat. Animal.* lib. II. cap. XVIII.

§ The original seat of the worship of Æsculapius was at Epidaurus, where he had a splendid temple, adorned with a gold and ivory statue of the God, who was represented sitting, one hand holding a staff, the other resting on the head of a serpent, the emblem of sagacity and longevity; and a dog couched at his feet. This temple was frequented by harmless serpents, in the form of

the human body; and the priests practised a separate invocation for each genii, which they used in order to obtain from them the cure of the particular member confided to their care.* It was from Egypt also that the formularies which taught the use of herbs in medicine originally came; and these formularies were magical.† The magicians of the islands of Sena cured invalids by others deemed incurable.‡ The Scandinavian virgins were instructed at the same time in magic, medicine, and the treatment of wounds.‖ Diodorus, who has often attempted to extricate history from its medley of fables, looks upon the science of Medea and Circe as natural, as a profound study of all remedies and poisons; and he relates that the former cured the son of Alcemenes of a furious madness.§

which the God was supposed to manifest himself. He had, also, temples at Rhodes, Cindos, Cos, and one on the banks of the Tiber. According to Homer, his sons, Machaon and Padalirius, treated wounds and external diseases only; and it is probable that their father practised in the same manner, as he is said to have invented the probe, and the bandaging of wounds. His priests, the Asclepiadæ, practised, however, incantations; and cured diseases by leading their patients to believe that the God himself delivered his prescriptions in dreams and visions; for which impostures they were roughly satirised by Aristophanes in his play of *Plutus*. It is probable that the preparations, consisting of abstinence, tranquillity and bathing, requisite for obtaining this divine intercourse, and, above all, the confidence reposed in the Asclepiadæ, were often productive of benefit.—Ed.

* Origen. *Contr. Cels.* lib. VIII.

† Galen. *De Simpl. Médicam. Facult.* lib. VI. prooem.

‡ Pomponius Mela. lib. III. cap. VI.

‖ C. V. de Bonstetten. *La Scandinavie et les Alpes.* p. 32.

§ Diod. Sic. lib. IV. cap. II. et XVI.

For a long time after the age of Hercules and the heroic times, invalids in Greece sought relief from their sufferings from the descendants of Esculapius in the temples of that God, which an enlightened policy had raised on elevated spots and salubrious vicinities.* Those men who pretended in right of their birth to hold the gift of curing, finally learnt the art of it, by preserving in the temples the history of those diseases, the cure of which had been sought from them.† They then added to their number disciples, whose discretion was secured by the trial of a severe initiation. By degrees the pro-

* Plutarch. *Quæst. Roman.* § LCIV.

† The temple of Cos was rich in votive offerings, which generally represented the parts of the body healed, and an account of the method of cure adopted. From these singular clinical records Hippocrates is reported to have constructed his treatise on Dietetics. It is a curious fact, that many similar votive offerings of legs, arms, noses, &c. are hung up in the Cathedral of Aix la Chapelle, and some other continental churches, as records of cures performed by the holy relics in those sacred edifices. The crutches of the Countess Droste Vischering, also, are hung up in the Cathedral of Treves, in memory of the sudden and miraculous cure of a contraction of the knee-joint, which had long withstood all medical skill, by the mere sight of the seamless coat of our Saviour, before which she prostrated herself, and was instantaneously cured. But although the crutches attest the cure, and the Countess walked from the church to her carriage, merely leaning on the arm of her grandmother, yet, like most other miraculous cures, it was only a temporary alleviation; and her walking was an effort of sudden excitement, the result of muscular energy, produced by the confidence of obtaining relief from the miraculous power of the holy coat. She became once more a cripple. These facts display the melancholy truth that many pagan customs were engrafted on Christianity, and are still employed by the Church of Rome to delude the ignorant and superstitious, in order to support her powers.—ED.

gress of philosophy raised the mysterious veil, behind which they would have still concealed the science. Hippocrates at last placed medicine on a real foundation, and taught its precepts in his immortal works. Its doctrines, till then imprisoned in the archives of the Asclepiadæ, were given entire to swell the patrimony of perfectible civilization. From this moment the priests ought to have renounced their pretensions to the healing art,* but they were careful to prevent the science from being entirely divested of its heavenly and magical origin. The greater number of the thermal waters, more frequently used then than in the present day, remained consecrated to the Gods, to Apollo, to Esculapius, and, above all, to Hercules, who was surnamed *Iatricos*, or the able physician.†

* Coray. *Prolégomènes* of the French translation of Hippocrates' Treatise on Air, Water, and Places.

† The sacred character of healing springs, is a relic of classical and druidical superstition that still remains. In Fosbrooke's *British Monachism* (477) we learn that, "on a spot, called Nell's Point, is a fine well, to which great numbers of women resort on Holy Thursday, and having washed their eyes in the spring, they drop a pin into it. Once a year, at St. Mardrin's well, also lame persons went, on *Corpus Christi* evening, to lay some small offering on the altar, there to lie on the ground all night, drink of the water there, and on the next morning to take a good draught more of it, and carry away some of the water each in a bottle at their departure.[a] At Muswell Hill was formerly a chapel, called our Lady of Muswell, from a well there, near which was her image: this well was continually resorted to by way of pilgrimage.[b] At Walsingham a fine green road was made for the pilgrims, and there was a holy well and cross adjacent, at which pilgrims used to

[a] *Antiq. Repertory*, vol. II. p. 79.

[b] Simpson's *Agreeable Historians*, vol. II. p. 622.

Those philosophers who never left the temples incurred accusations of dealing in magic, when by natural means they cured their fellow-beings of the evils which desolated their abodes: this happened to Empedocles. An endemic disease raged in Selinuntia; Empedocles saw that it arose from the hurtful vapours exhaled from the stagnant waters of a sluggish river; and to remedy the evil he changed the course of two brooks, and by conducting them into the bed of the river, he increased the current of the waters; after which, as the river ceased to be stagnant, it ceased to exhale the pestilential miasma; and, consequently, the plague disappeared.*

If, in the second century of our era, the Emperor Adrian succeeded in relieving himself for a time from an

kneel while drinking the water.[a] It is remarkable that the Anglo Saxon laws had proscribed this as idolatrous.[b] Such springs were consecrated upon the discovery of the cures effected by them.[c] In fact," Fosbrooke properly adds, "these consecrated wells merely imply a knowledge of the properties of mineral waters, but through ignorance, a religious appropriation of these properties to supernatural causes."

I may add to this record, that Holywell, in the county of Flint, derives its name from the Holy Well of St. Winifred, over which a chapel was erected by the Stanley family, in the reign of Henry the Seventh. The well was formerly in high repute as a medicinal spring. Pennant says that, in his time, Lancashire pilgrims were to be seen in deep devotion, standing in the water up to the chin for hours, sending up prayers, and making a prescribed number of turnings; and this excess of piety was carried so far, as in several instances to cost the devotees their lives.—Ed.

* Diogen. Laert. *in Empedocl.*

[a] *Beauties of England* (old edit.), vol. II. p. 118.

[b] *Brompton and Script.* 123.

[c] *Decem. Scriptures,* 2417.

aquæous congestion which swelled his body,* it was said to have been effected by some magic art. Tatian, a sincere defender of Christianity, who lived about the same time, does not deny the wonderful cures effected by the priests of the temples of the Polytheists; he only attempts to explain them by supposing that the Pagan Gods were actual demons, and that they introduced disease into the body of a healthy man, announcing to him, in a dream, that he should be cured if he implored their assistance; and then, by terminating the evil which they themselves had produced, they obtained the glory of having worked a miracle.†

These opinions were not peculiar to a civilized people. Less enlightened nations have believed that diseases were signs of the vengeance or the malevolence of beings superior to humanity; consequently, priests and magicians were everywhere selected as physicians. Among the Nadoëssis and Chippeways the three titles of Priest, Physician, and Sorcerer were inseparable, and they are so still among the Osages.‡ The priest-magicians were the only physicians of Mexico.‖ In the heart of the Galibis nations, the Payes are priests, physicians, and magicians; and they form a corporation, the admission into which can only be obtained by submitting to a very painful initiation.§

* Xiphilin. in *Adrian.*

† Tatian. *Assyr. Orat. ad. Græcos.* p. 157.

‡ Carver. Travels in North America, p. 290.

‖ Joseph Dacosta. Natural History of the Indies, book v. chap. xxvi.

§ Noël. *Dictionnaire de la Fable.* Article *Piayes.*

Christianity could not in Asia and Europe entirely destroy the prejudices which had prevailed under the reign of Polytheism. They reappeared with renovated strength in the dark ages; when, in spite of the antipathy which the Jews inspired in the Christians, the Israelites were almost the only surgeons to princes and kings: and the remarkable cures they effected seemed the results of some mysterious influence. This opinion was strengthened by the sedulous concealment of their prescriptions, which were probably borrowed from the Arabians; and they evidently were not unwilling that their Christian adversaries should deem them possessed of supernatural secrets. It was not long before some of the indiscreet supporters of Christianity brought forward miraculous cures to oppose to the influence of the Jews. Like the ancient temples, many of the Christian churches displayed within their walls holy springs, the waters of which were reputed to possess great healing virtues. The belief of the Christians in their healing powers partly originated from a sincere confidence in their adopted faith, and partly from failure of any other resource. It may, however, have been a legacy of Paganism, hastily accepted by men, who would rather sanctify an error than allow confidence to exist in a proscribed religion. Whatever might be the reason, when these healing springs were resorted to, the sick could derive no benefit from them unless they submitted to, the regulations of the priests. The diseases sometimes yielded to the regimen, to time, and to the calm that hope and a pious confidence, aided by the Imagination, produced; sometimes, however, they resisted their influence, but the failures were attributed

to the sins and the want of faith in the patient: hence the miraculous virtue which was proved by cures in some cases, was not, therefore, nullified by the failures in others.

The institutions were conformable to the *opinion* that all cures were effected by the direct interposition of the Divinity; and they long survived it. The Christian physicians who, in conjunction with the Arabians and the Israelites began to spring up, formed part of the clergy, long after the idea of anything supernatural in their art had exploded. "The professors of medicine," says Et. Pasquier, were formerly all *Clerks;* and it was not till the year 1542 that the *Legate* in France gave them permission to marry.* Towards the same time Paracelsus, who during his travels in Africa and the East had acquired

* Et. Pasquier. *Recherches de la France,* liv. III. chap. XXIX.—Until this period, the four instructing faculties of the University were condemned to celibacy, In 1552, the doctors in law obtained like the physicians, the permission to marry. But it was long after the first dignities in this faculty were accorded to the canons and priests. In many of the Protestant cantons of Switzerland, in the present day, it is necessary, before being promoted to the chair of the public establishments to give proof of theological talent. The pretext for this arrangement was, that these establishments had been endowed at the expense of the ancient religious foundations. This motive would not, however, have been decisive without the established prejudice that the instructing body should belong to the church and the sacerdotal corporation

Richard Fitz-Nigel, who died Bishop of London, A.D. 1198, had been apothecary to Henry the Second. The celebrated Roger Bacon, who flourished in the 13th century, although a monk, yet practised medicine. Nicolas de Farnham, a physician to Henry the Third, was created Bishop of Durham; and many other doctors of medicine were at various times elevated to ecclesiastical dignities.—ED.

[a] Tiedmann. *De Quæstione,* &c. p. 122.

secrets which secured him great superiority over his competitors, renewed the example which had been given by Raymond Lully and other adepts, and presented himself as instructed and inspired by a divinity.* Had his life been prolonged and his conduct less light, who would have dared to say that there might not have been found a public credulous enough to have recognized his assumptions?†

* Tiedmann. *De Quæstione*, &c. p. 113.

† The birth-place of Paracelsus is not accurately known, but it is supposed to have been Einsiedeln, in the canton of Schwyz. He was born in 1493. He was the son of a physician, who instructed him in alchemy and astrology, as well as medicine. He displayed early an ardent desire for knowledge; not such, however, as is derived from books; but such as he could pick up wherever it could be procured, without being very difficult of acquirement; or without much nicety being shewn as to the source whence it came. For this purpose he travelled over the greater part of Europe, and also into Africa and Asia. He was chosen professor of medicine at Basil in 1526; and at his first lecture, he publicly burnt the works of Celsus and Avicenna, asserting that they were useless lumber. He was a man of the most irreligious character and immoral habits, a glutton, and a drunkard; and in falsehood, vanity, and arrogance unequalled. He pretended to possess the philosopher's stone, asserted that he imprisoned a demon in the pummel of his sword, and that he had discovered the elixir of life. His medical writings are specimens of credulity and imposture. He was a believer in magic, and boasted of having conversed with Avicenna, in the vestibule of the infernal regions. He had, however, the merit of introducing into medicine the use of mercurials, and several metallic remedies, and greatly improved pharmaceutical chemistry. He left Basil, in less than a year, after his appointment; and, after having undergone many hardships and vicissitudes, he died in great poverty at Salzburg, in the Tyrol, in 1541, in the 48th year of his age, giving the lie to the impudent boast of his possessing the elixir of life and the philosopher's stone.—Ed.

The habit of associating a supernatural power to the natural action of remedies, particularly those which were kept secret, has been preserved to the present day. The best physicians have proved that the only effectual remedy against the bite of a rabid animal is cauterization of the wound with a red hot iron: and this remedy has been employed for many centuries in Tuscany, and also in some provinces in France. But in the former place, the iron which they heat is one of the nails of the true cross;* and in the French provinces it is the key of Saint Hubert,† which is, however, only useful in the hands of those persons who can trace the illustriousness of their genealogy to this noble Saint. It is thus a kind of heir-loom or hereditary possession, similar to that assumed by the Psylli and the Marses, and the descendants of Esculapius.

We must again repeat what we have so often before stated, that it was originally rather a feeling of pious gratitude than a spirit of deception, which united the idea of an inspiration and the gift of the Divinity to the recipes and salutary operations of medical science. Upon the banks of the river Anigrus was a grotto dedicated to the nymphs. There resorted persons afflicted with herpes, who, after prayers and a previous friction, swam across the river, and by the favour of the nymphs were cured.

* Lullin-Châteauvieux. *Lettres écrites d'Italie,* tom. 1. p. 129.

† Particularly in the village of La Saussotte, near Villenauxe, department of the Aube. At the Abbey of St. Hubert, in the diocese of Liege, the intercession of the Saint is alone sufficient to effect the cure, provided it is seconded by some religious ceremonies, and a diet which will reassure the imagination. (*Voyage Littéraire de D. Martenne et de D. Durand.* Part second. Paris, 1724, pp. 145—147.)

Pausanius,* who relates this apparent miracle, adds that the waters of the Anigrus exhaled a fœtid odour; that is to say, they were charged with sulphuretted hydrogen gas, and were, therefore, antiherpetic. Our physicians succeed in curing it by means of the same agent, without the ceremonies, and without speaking of miracles.

But the ancient teachers and the rulers of the people were often obliged to speak of, and sanction salutary precepts, through the illusion of the marvellous, whether necessary to overcome, as in Esthonia and Livonia, the apathy of men stupified by slavery and misery, by commanding them, in the name of the Gods, to combat the epizootics, which in their ignorance they deemed the effect of sorcery, by fumigating their stables with assafœtida ;† or whether, in the midst of a society rich and abandoned to pleasure, they attributed to a particular stone the property of preserving the purity of the voice, provided the singer, who would profit by its salutary virtue, lived in chastity.‡

The pride and interest attached to exclusive possession involved the concealment of the secrets which were valuable enough to be preserved, under a supernatural veil.‖ Juno recovered her virginity every year by bath-

* Pausanias, *Eliac.* lib. I. cap. v.

† Debray. *Sur les Préjugés et les Idées Superstitieuses des Livoniens, Lettoniens et Esthoniens.—Nouvelles Annales des Voyages*, tome XVIII. p. 3.

‡ *Solin.* cap. XL.

‖ This was very natural, at a period when the whole of the art of curing disease was supposed to depend on the possession of such secrets. The sick, on this account were carried on biers, and exposed on the highways, for the inspection of the passers by, and to obtain from them prescriptions.—ED.

ing in the fountain of *Canathos*,* and it is said that the women of the *Argolides* bathed there with the same hope. It is certain, however, that the Argians, in relating the prodigy, mention that, in order to be relied upon, some occult ceremonies practised in the worship of Juno† were requisite. According to tradition, the Goddess immediately after her nuptials bathed in an Assyrian fountain, the waters of which immediately contracted a very delightful odour.‡ Does not this last trait denote that both in Syria and in Greece the property which had caused the myrtle to be dedicated to the Goddess of Love, and used by women to repair the exhaustion of child bearing, was known ?‖

But we are informed, that the priest administered the beneficial effects with mysterious ceremonies only, offering them as a miracle resulting from these ceremonies.

The books of the ancients are inexhaustible on the healing and magical properties of plants. The greater number have no doubt originated in the love of the marvellous; and many have obtained reputation from

* A fountain of Nauplia.—Ed.

† Pausanias. *Corinthiac.* cap. xxxviii.—Noel. *Dictionnaire de la Fable,* art. *Canathos.*

‡ Aelian. *De Nat. Animal.* lib. xii, cap. xxx.—The Greeks pretended to recognize Juno (Hera) in the Goddess of Assyria, the celestial virgin spouse of the Sun, who at the period when Gemini makes the equinox of the spring, was every year found a virgin by her husband, when the summer solstice led him again to her.

‖ Rabelais (livre i. chap. xliv.) puts for this reason abundance of myrtle water in the baths of the ladies of the Abbey of Thélème. For myrtle water, in the first editions, published during the life of the author, the re-impressions have erroneously substituted water of myrrh.

no greater reason than an inaccurate translation of the name of the plant. We must nevertheless observe, that modern writers have not been more reasonable upon this subject than the ancients. The herb *scorzonera*, for instance, derived its name from the exterior colour of its stalk, *scorzo nero*. It is quite evident that this name has been taken from *scurzo*, the Spanish for viper; and the *scorzonera*, from that circumstance, is regarded as a powerful antidote for the bite of the viper.*

Charlatanism, in short, in order to conceal from view the action of natural agents, in medicines as in other branches of the Occult Sciences, attributed a magical efficacy to points of an insignificant nature. An adept, quoted by Fromann,† pointed out a remedy for consumption and the sweating sickness, which was in itself simple enough, but was not to be prepared with common fire. A saw was to be manufactured from an apple tree struck by lightning, and was to be used to saw the wood of the threshold of a door through which many people had passed, until the continued friction of the instrument upon the wood had produced a flame.‡ The extravagance of the proceeding inspired a pious confidence in those who resorted to the remedy, and the difficulty of executing it well, secured beforehand, in

* *Dictionnaire de Furetière*, art. *Scorsonère*. Plants were valuable as remedies only when collected under the influence of certain planets; they were also required to be collected on certain days. This superstition, indeed, was upheld until the seventeenth century; and directions were given for collecting the plants, in the Herbals of Turner, Culpepper, and Lovel.—Ed.

† Fromann. *Tract. de Fascinatione*, pp. 953—964.

‡ Fromann. *Tract. de Fascinatione*, pp. 363—364.

case of failure, the infallibility of the medicine. This instance is one of the strongest that can be cited, but it recals millions of others.

To cure dislocations, and displacements of the thigh-bone, Cato* prescribes the applications of splinters so disposed as to replace and support the injured member in its natural position. He then points out some words which are to be used during the operation. These unintelligible words were possibly nothing more than the same direction expressed in another language: expressions upon which, though no longer understood, the magical efficacy of bandaging was supposed to depend.

The sacred words may, in a similar case, have been a prayer by which the use of any natural remedy was accompanied, and to which the success was thought to be due. Men who pretended to be endowed with secret powers, taught that it was possible to stop a hemorrhage from the nose by repeating an *Ave* or a *Pater*, provided that, at the same time, the nostrils were compressed with the fingers,† and linen steeped in cold water applied to the head. More frequently the pretended miracle originated in the care which the Thaumaturgists took to make an inert substance the mask of an efficacious medicine.

The *Kicahans*, subjects of the Burmese, and who appear to have been driven by them to the mountains of Assam, go out after every storm in search of aerolites, and if they find any, transmit them to their priest, who

* Cato *De Re Rusticâ*, cap. CLX.

† Fromann. *Tract. de Fascinatione*, (4to. 1675), lib. I. cap. XXIX.

preserves them as remedies sent by heaven for the cure of every disease.*

The miraculous powers of the Bezoars,† experienced and celebrated in Asia, for some time found credence in Europe; yet these bezoars have no more effect than the aerolites upon the nervous system, and could only be used like the latter to disguise the use of more active substances.

A Greek inscription,‡ which we believe must have

* *Nouvelles Annales des Voyages*, 2nd series, vol. III. p. 229. The Parthian Magi carefully seek a stone which is only to be found in places struck by thunder. They doubtless attribute great virtues to it.—*Plin. Hist. Nat.* lib. XXXVII. cap. IX.

† The Bezoar is a concretion found in the intestines of the stag, and sometimes of the goat. It was formerly supposed to have the power, not only of curing diseases, but also of driving out poisons, whence the name, from the Persian words *Pád-zahr*, "expelling poison;" *Pad* meaning to remove or cure, and *Zahr* poison. The Hindoos and Persians have still great confidence in its curative powers, especially that one which is formed in the stomach of the *Caprea Acyagros*, the wild goat of Persia, which is sold for its weight in gold. The bezoar was, at one time, in as high estimation in Europe as in the East; and its value as a remedy was enhanced by the marvellous manner in which it was supposed to be produced. "When the hart is sick," says Garner, "and hath eaten many serpents for his recoverie, he is brought unto so great a heate, that he hasteth to the water, and there covereth his body unto the very eares and eyes, at which distilleth many teares from which the stone (the bezoar) is gendered." Bezoars consist almost entirely of phosphate of lime; and, as curative agents, afford an addition to the many thousand proofs of the influence of mind over the body, and how truly efficacious Imagination may prove in removing disease.—ED.

‡ J. Gruter. *Corp. Inscript.* folio, Amstelodami, 1707, p. 71, insc. 1.

been anciently placed in the temple of Esculapius at Rome, and which perpetuates four cures effected by that God, presents us with four examples of the different ways in which credulity lends itself to the marvellous. There is nothing surprising in stopping a hæmoptyses, spitting of blood, by the use of sweet kernels and honey,* nor even in the oracle that ordered it. But when the God, in order to cure a pain in the side, prescribed a topical application, the principal ingredient of which was to be the cinders collected from his altar, it is easy to conjecture that his priests mingled some drug with those cinders. If a salve, in which the blood of a *white cock* was added to honey, produced beneficial results, we may be permitted to think that the colour of the bird was only of use to veil in mystery the composition of the remedy. A blind man, after some genuflections, placed the hand that had been extended upon the altar over his eyes, and suddenly recovered his sight. He had never lost it; and he probably executed this juggling at some critical moment, when it was of importance to revive the declining reputation of Esculapius and his temple.

We could compile whole volumes with similar impostures. Worn by the sufferings of an incurable disease, Adrian invoked death, and it was feared he would have recourse to suicide: a woman appeared, who declared

* Under the term sweet kernels, is meant the bitter almond, or the kernels of the peach, both of which, when they are moistened, evolve hydrocyanic acid, which operating as a powerful sedative, would arrest the flow of blood. The honey, which is an excitant, was a bad addition.—Ed.

that she had received in a dream an order to assure the Emperor he should soon be cured. Not having obeyed this order at first, she lost her sight: but, being warned by a second dream, she fulfilled her mission, and her eyes immediately re-opened to the light.* But although Adrian died some months afterwards, the witnesses of this trick were not the less disposed to believe in every other assumed miracle set before them.

The greatest of all prodigies to reasonable minds is, in my opinion, the belief in assumed miracles by the very men who have unmasked and unveiled the falsehood of such miracles. And, by a remarkable singularity, the superstitious man and the philosopher may each, in his own way, profit by a prodigy often repeated. The one sees in it a proof of the truth of his assertions, and the effect of the gifts of heaven, which display themselves in overcoming human reason; the other, finding this contradiction everywhere, maintains that it proves nothing, since, if it was applied to one real belief, it would allow a hundred false ones to triumph: and that its only principle is, therefore, the facility with which the human race ever abandon themselves to those who attempt to deceive them.

Credulity is, in fact, the disease of every age and of every country. The haunts of those mendicants who deceive the public by obtaining their sympathy for the most deplorable deceptive infirmities, were formerly called in Paris *Cours des Miracles*, because, on entering those quarters of the city, these wretches deposited the costumes of the different parts they acted. At once the

* Aelian, *Spartian. in Adrian.*

blind saw, and the cripple recovered the use of his limbs. Nearly a dozen of these "Courts" exist in the French capital; and it is lamentable to add, that their inhabitants are sometimes employed by the priests and monks to give an authority to their relics, by vouching for the miraculous cures which these pretended invalids receive from their touch.* The name *Cours des Miracles*† having become popular, proves that no one was ignorant of the impostures which were every day enacted there, and yet, daily, these sharpers find dupes; and with a perfect knowledge of this habitual deception, supernatural cures are still believed.

Obstinate and ingenious in deceiving herself, Credulity is found intrenched behind well-attested wonders, that have not been denied by experience. This is very well! but let science take from these marvels what belongs to itself, it will quickly aid the honest man in detecting that which appertains to imposture.

It is not by opposing to the boasts of the charlatan an immense number of proofs of his errors, however credible, but it is by demonstrating that these marvels may have occurred in the order of nature, that we can cherish any hope of curing mankind of an infatuation which has already cost him very dear.

* When Louis XI. was ill, he sent for the holy man of Calabria, and fell upon his knees before him, begging that his life might be prolonged. The holy vial was sent to him, and St. Peter's vest from Rome; but, alas! both confidence and faith were of no avail in this case. "The monarch," says Commines, "could command the beggar's knee, but not the health of it."—Ed.

† Sauval. *Antiquités de Paris*, tome i. pp. 510—515, quoted by Dulaure. *Physical, Civil, and Moral History of Paris.* (1821, vol. iv. pp. 589—596.)

When we hear accounts of those miraculous fasts, which men of superior intellect have endured for days and for weeks, we are tempted to class them with the Oriental tales,* in which similar inconceivable abstinences figure. But as these narrations are so numerous, can we attribute them wholly to a desire to deceive, and affirm that they are altogether without foundation?

Let us first of all remark that certain substances possess, or have attributed to them, the property of suspending the sensations of hunger and of thirst. Such, for instance, as the leaves of the tobacco plant, and the leaves of the *Cocoa* (a Peruvian plant). People have gone so far as to say that, if either of these plants be held in the mouth by a man, who has worked all day without eating, they will prevent him from suffering from hunger.†

Matthiolus‡ attributes to the Scythians the use of an herb agreeable to the taste, and so efficacious in supplying the place of nourishment, that its effects had sometimes prolonged life for twelve whole days. Another herb sustained in a similar manner the strength

* *Les Mille et un Jours.* The Thousand and One Nights; Nights 137 and 138.

† J. Acosta. *Natural History of the Indies*, etc. book IV, chap. XXII.—Opium has the same power of allaying the sensation of hunger. The Turkish courier, who performs long and fatiguing journeys without rest, on horseback, provides himself with a small bag of opium lozenges, *Mash-Allah*; and, when greatly fatigued, he alights, opens his bag, takes a lozenge himself, and having also given two to his horse, remounts, and proceeds with as much alacrity as when he set out; both horse and man are refreshed, and the sensation of hunger is subdued.—ED.

‡ Matthiolus. *Commentar. in Dioscorid.* — *Epistol. Nuncupator.*

of those indefatigable cavalier's horses. This apparent miracle may have been the result of a desire to deceive, and may have been effected by reducing substances eminently nutritious to a very small bulk.* To the use of such an art we may explain what was said of Abaris, that he had never been seen to eat or to drink ;† an art also which was successfully practised by Epimenides, the cotemporary of Solon,‡ is well known in the present day, and has very recently been brought to perfection by a learned man.§ It is nearly fifty years ago since the plan

* This opinion of our author is not very tenable ; and, although the period is much exaggerated, yet, it is not inconsistent with experience, that the sensation of hunger may be destroyed, and life sustained, by some description of herbs.—Ed.

† Iamblich. *Vit. Pythag.* § 27.—Abaris was a Scythian, the son of Seuthes ; he flourished during the Trojan war, and is supposed to have written some treatises in Greek. Many absurd fables are related concerning him ; among others, that he received a flying arrow from Apollo, which gave oracles, and transported him through the air wherever he pleased ; that he returned to the Hyperborean countries from Athens without eating, and that he made the Trojan Palladium with the bones of Pelops.—Ed.

‡ Plutarch. *Sympos.*

§ M. Gimbernat. *Revue Encyclopédique*, tome xxxv. p. 235.—More absurd stories are related of Epimenides than of Abaris. He was said to have entered into a cave, where he fell asleep, and slept for fifty-seven years ; so that, when he awoke, he found everything altered ; and he scarcely knew where he was ; a degree of ignorance which is surprising, as he is also reported to have been able to dismiss his soul from his body, and recal it at pleasure. During its absence, he affirmed that it had familiar intercourse with the Gods, and obtained the gift of prophecy. In plain language, he was a man of genius, a poet, and a learned man, capable of great abstraction ; and, for the

of giving nourishment of this kind to mariners was attempted in France: its small bulk would have enabled a much greater quantity than of any other provision to have been embarked at a time; it was, however, abandoned, for although the men thus fed did not suffer from hunger, yet, they were found less capable of sustaining fatigue.

This would not be any inconvenience to the Thaumaturgists. A holy man, who lives without any, or very little excitement, commonly remains motionless in his cell, receiving the respect and adoration of those who seek him there; and if, after a long period of trial, he should be found sinking from weakness, this circumstance would only increase the faith in the reality of his miraculous abstinence.

This difficulty, besides, could not have existed in earlier times. According to Edrisi,* the Berber tribes of the neighbourhood of Roun, prepared, with honey and roasted and bruised corn, so nourishing a paste, that a handful eaten in the morning enabled them to march

sake of justifying his pretensions of intercourse with the Gods, he lived in great retirement, and chiefly upon herbs. So high was his reputation for sanctity, that, during a plague in Attica, 596 B.C., the Athenians sent for him to perform a lustration, by which the Gods were appeased, and the plague ceased. He was a native of Crete; and the Cretans paid him divine honours after his death. Notwithstanding his celebrity, however, he can only be regarded in the light of an impostor, living in an age of almost incredible credulity; therefore every thing related of him must be received with doubt.—Ed.

* *Géographie d'Edrisi,* translated by M. Am. Jaubert, vol. 1. p. 205.

until evening without experiencing hunger. The Caledonians and the Meates,* who formed the greatest part of the population of Great Britain, understood, says Xiphilin, a method of preparing their food in a way so capable of sustaining their strength, that having taken a quantity equal to the size of a bean, they felt neither hunger nor thirst. The Scythians, doubtless, possessed the art of a process similar to this, and even extended it to the food of their horses; but the miraculous herbs mentioned by Matthiolus were merely intended to delude others as to the secret of their real nature. But this secret could not have been unknown, at least to the learned portion, among people much more civilized than the Caledonians and Scythians; its existence, therefore, render such narrations credible, and divest them of their miraculous covering.

Far above the miracle of making man independent of the most pressing wants of nature, is that of restoring to him the life that he has lost.

It is agreed that there is nothing so difficult to determine as the certain and irrefragable signs of death; and the special study of these signs, and a complete experience of what is doubtful and positive in them, alone furnish the means of distinguishing between a real and an apparent death. To restore to life a being who is threatened to be deprived of it by a too hasty burial

* Xiphilin. in *Sever.* Anno. 208. In a story which appears to be of oriental origin, the secret of composing pills, or an opiate endued with the same virtue, is attributed to Avicenna and another learned man. (*The Thousand and One Nights.*)

would, in the present day, be a benefit; formerly it was a miracle.

The laws and customs of an enlightened people will always prescribe laws for ascertaining that life is actually extinct. From time immemorial the Hindoos have employed fire, the most certain, perhaps, of all proofs, for even if it does not rouse the sensibility, there is a visible difference in the action of burning when exercised on an inanimate body, and that on one in which life still exists.* It is not until after a portion of cow-dung has been burned in the hollow over the stomach of the corpse, that the funereal pile, which is to consume it, is lighted. According to appearances, a similar custom formerly existed in Italy and Greece. Tertullian† ridicules those spectacles in which Mercury is represented as examining corpses, and convincing himself by a red-hot iron that the exterior marks of death were not deceptive. This custom must then have been at one time in full force, but had fallen into disuse, and existed only in mythological remembrances. Democritus had, at an early period, asserted that there did not exist any certain signs of real death.‡ Pliny‖ maintained the same opinion, and even remarked that women were more exposed than men to

* Fodéré. *Dictionnaire des Sciences Médicales.* Art. *Signes de la Mort.*

† Tertullian. *Apologetic.* cap. xv.—Cœlius Rhodiginus, (*Lect. Antiq.* lib. iv. cap. xxxi.) reads, as we do, *Cauterio* in the text of Tertullian, and not *Cantherio.* This last version, adopted by some modern writers, does not seem to me to offer any reasonable sense.

‡ A. Cornel. *Cels.* lib. ii. cap. vi.

‖ Plin. *Hist. Nat.* lib. vii. cap. lii.

the dangers of an apparent death. He cited numerous instances of apparent deaths, and among others, one mentioned by Heraclides, of a woman who revived after having passed for dead during seven days.* Neither did he forget the sagacity of Asclepiades, who, seeing a funeral procession pass by, exclaimed that the man who was being carried to the pile was not dead.† To conclude,

* Plin. *Hist. Nat.* lib. VII. cap. LII.

† A. Cornel. *Cels. loc. cit.* — Heraclides wrote a Treatise entitled, *The Disease in which the Respiration is suspended.* Asclepiades was a learned physician, and was the founder of a sect in medicine. There can be no difference of opinion with respect to the correctness of the observations of these distinguished men. Numerous cases of apparent deaths have been recorded as having occurred in modern times. The mention of a few will suffice to demonstrate the difficulty of determining the fact that death has actually triumphed over mortality; unless the signs be of that unequivocal nature that they cannot be mistaken—namely, the extinction of animal heat, that rigidity of the body in which the direction of the limb, when changed, remains, and commencing decomposition. Francis Civile, a Norman gentleman, who lived in the time of Charles the Ninth, twice apparently died, and was twice in the act of being buried, when he spontaneously revived at the moment in which the coffin was deposited in the grave. In the seventeenth century, a Lady Russell, apparently died, and was about to be buried; but, as the bell was tolling for her funeral, she sat up in the coffin, and exclaimed, "It is time to go to church." Diemerbroesk (*Treatise on the Plague*, book IV.) mentions the case of a peasant, who displayed no signs of life for three days; but, on being carried to the grave, revived, and lived many years afterwards. So recently as the year 1836, a respectable citizen of Brussels fell into a profound lethargy on a Sunday morning. His friends conceiving that he was dead, determined to bury him; and on Monday he was placed

might not humanity have adopted this means of safety, to which the instinct of tyranny instigated Nicocrates* to make use of, in order to prevent the inhabitants of Cyrene from feigning death, and by thus leaving the town to withdraw from his cruelty.

Would it be absurd to suppose that the Thaumaturgists were so well acquainted with the distinction between apparent and real death, as to take advantage of it, and to boast the power of so brilliant a miracle as a resurrection: and consequently they exerted themselves to lead to the disuse of the salutary practice, attributed by tradition to the God Mercury.

It is at least certain that many Theurgists boasted of being endowed with the power of recalling the dead to life. Diogenes Laertius relates that Empedocles resuscitated a woman,† that is to say, "that he dissipated

on a bier, with all the usual accompaniments of the dead, previous to interment, in Catholic countries. His body was placed in the coffin; and, when the undertaker's men were about to screw down the lid, the supposed corpse sat up, rubbed his eyes, and called for his coffee and a newspaper.[a] From these, and many instances of a similar description, it is evident that a temporary quiescent condition of the vital principle must not be confounded with real death. The immobility of the body, even its cadaverous aspect, the coldness of the surface, the absence of respiration and pulsation, and the somewhat sunken state of the eye, are not unequivocal evidences that life is wholly extinct. The only unequivocal signs are those mentioned above: and, happily, in this country, interment does not take place until some evidences of putrifaction display themselves.—Ed.

* Plutarch. *Mulier, Fort. Fact.* § x.

† Diogen. Laert. lib. viii. cap. lvii. et lxix.

[a] *Morning Herald*, 21st July, 1836.

the lethargy of a woman attacked by uterine suffocation."*

The biographer of Apollonius of Tyana more cautiously expresses himself, relatively to a young girl who owed her life to the care of this philosopher. He says, that she had seemed to die; while he confesses that the rain which fell upon her, when she was in the act of being carried with her face exposed to the pile, might have commenced exciting her senses. Apollonius had at least, like Asclepiades, the merit of distinguishing at a glance between real and apparent death.†

An observer of the seventeeth century‡ relates that a servant finding on returning from a voyage, his master dead, tenderly and frequently embraced the inanimate body. Thinking that he discovered some signs of life in it, he breathed his breath into it with so much perseverance as restored respiration, and reanimated the apparently dead man. This was not regarded as a miracle;‖ and happily for the faithful servant, it was no

* Diderot. *Opinions des Anciens Philosophes.* Art. *Pythagore-Pythagoriciens.*

† Philostrat. *Vit. Appollon. Tyan.* lib. IV. cap. XVI.—Apollonius began by asking the name of the young girl, doubtless in order to address her. He knew that of all articulated sounds which strike upon our ear, our own name is that which we most easily recognize, and which most quickly excites our attention.

‡ Petr. Borellus. *Hist. et Observ. Medic. Centur.* III. observ. LVIII. quoted by Fromann, *Tractat. de Fascinatione,* pp. 483—484.

‖ This mode of restoring the respiratory function in suspended animation, is often successfully resorted to in the present day; and as a medical man has often to determine the question of real or apparent death, it is consolatory to know, that he possesses the

longer the custom to attribute such an occurrence to magic.*

means of deciding with sufficient accuracy, to authorize the adoption of the measures which experience has proved to be the most likely to restore animation when it is merely suspended. When death has actually taken place, it is surely unnecessary to say, that any human attempt to restore life would not only display the most outrageous arrogance, but prove indubitably ineffective. We believe most sincerely in the real miracle of raising Lazarus from the grave by our Saviour, as firmly, indeed, as in the resurrection of our Saviour himself; and, although we are ready to admit that the Almighty, for some special purpose, as in the case of the Apostles and the early promulgators of Christianity, might even now endow a mortal with such a supernatural gift, yet, all experience is against such an event. Many impostors, however, have presumptuously asserted their possession of this power; and, even at so recent a period as that of the French prophets, it was assumed by these insane enthusiasts, who, not contented with the reputation of many cures performed upon nervous and imaginative individuals, by means of prayer, destroyed their reputation by indiscreetly staking it on the resurrection of Dr. Eames; a striking proof how readily the intellect may become the slave of fanaticism.—Ed.

* The subject of the powerful influence of mind over the body, is of so much importance, especially at the present time, when the public is so open to the promises held forth by every pretender to the healing art, who blazons forth, in advertisements, the marvellous cures effected by his nostrums, that the Editor has added an essay upon that subject to the Appendix. (See note c.)—Ed.

## CHAPTER V.

Poisonous substances—Poisons, the effect of which can be graduated—Miraculous deaths—Poisons employed in ordeals—Diseases asserted to be caused by Divine vengeance—Diseases foretold.

FEAR is more permanent, as well as more exacting, than gratitude. It was easy for Thaumaturgists to inspire the former, in employing the agency of poisonous substances on organized bodies. Nature has produced these substances principally in those parts of our globe, which were first inhabited; and the art of increasing their number and their power is not less ancient than civilization. What could have appeared more magical, what more miraculous, we may inquire, in the eyes of ignorant men, at least in apparent connection with its cause, than poisoning by prussic acid, by morphia, or by certain preparations of arsenic, had they been known in ancient times? The author of the crime would have appeared in all eyes as a being endowed with supernatural power; even perhaps as a God, who could sport with the life of

weak mortals, and who with a breath could cause them to vanish from the face of the earth.

The ancient use, however, of this formidable knowledge at one time proved a blessing. The territory of Sycion was desolated by the ravages of wolves. The oracle, which was consulted, pointed out to the inhabitants the trunk of a tree, the bark of which it enjoined them to mix with the morsels of flesh which they threw to the wolves. These animals were destroyed by the poison. But the inhabitants could not recognize the tree, of which they had only seen the trunk. The priests reserved this part of the secret to themselves.

If in Greece, more than two thousand years ago, a man had fallen a victim to the influence of poison, or from an excess of intemperance, the incident in itself would not be interesting. But, when the short sojournment of that man on earth had cost more deaths and more evils to humanity than the greatest scourges of nature; and, nevertheless, when the illusion of conquests and the fallacy of vulgar opinions, had converted that monster polluted with innumerable crimes and vices into a model for heroes; when, in a word, that man was Alexander, the son of Phillip, the problem becomes historical, and excites curiosity. Its solution interests us, from its connexion with scientific ideas, the existence of which it enables us to reveal.

Aelian, Pompeus Trogas, and Quintus Curtius attribute the death of Alexander to poison.* The two latter add, that the poison was sent from Macedonia to Baby-

* Pausanias. *Corinthiac.* cap. IX.

lon, and was water from a spring at the foot of Mount Nonacris, in Arcadia. This water was so cold and so bitter that it occasioned death to both men and animals; it broke or corroded all vases, except those which were made from the hoof of an ass, or a mule, or a horse, or from the horn which the Scythian asses* have on their forehead. One of these horns had been offered as a present to Alexander: he had dedicated it to Apollo, in the temple of Delphi, with an inscription, relating its wonderful property.† In this recital we may perceive some dubious or obscure expressions; and remark that substances are frequently qualified as being *hot* or *cold*, independent of their temperature. Instead of the horn of a fabulous animal, a vessel might have been substituted which, like many vessels that were used by the ancients, was in the shape of a horn, and perhaps, also, displayed the colour of one, with its polish and its semi-transparency; but which, being brought from Scythia, or Upper Asia,‡ might have been made of thick glass, or of porcelain sufficiently well baked, and calculated to resist the action of corrosive liquids. Without entering into such an inquiry, the narrators have detailed only the marvellous part of the recital, and have made of it a ridiculous story.

I suppose, without entering into any explanation, that

* We are told by Aristotle, that, in his time, there were no asses in Scythia: some other animal, therefore, must have produced the horn sent to Alexander.—Ed.

† Aelian. *De Nat. Animal.* lib. x. cap. xl.

‡ The name of Scythia began to be applied to the northen parts of Asia, in the Macedonian period, and was employed at the time of the conquest of Asia by Alexander.—Ed.

the wonderful springs of which they boasted, and the water of which, we are told, corroded all metals with the exception of one alone, which they described simply by this property of inalterability, from the facility with which it was volatilized by heat, and a residue procured under the form of powder, perfectly white, and of extreme tenuity, was such as we need not refer to the land of fables. Such springs are at the doors of the French capital, at Enghien: and for distributing the water, pipes and taps of zinc are used,* because this metal appears to be the only one which does not decompose sulphureous waters.

Our incredulity would be redoubled, if an unaccredited author had made us acquainted, for the first time, with the *Zagh;* that substance which is employed in the East for inlaying steel arms with apparent gold. It is drawn from a spring in the mountains of the Druses, and can only be preserved in vessels of lead, or of glass, or porcelain. *Zagh* is a mixture of the acidulated sulphate of alumina, and sulphate of iron,† the solution of which will corrode any other metal except lead.‡ This, and the preceding example, at once sets aside part of the improbability which pervades the recitals relative to the water of Nonacris. Nothing precludes the *Zagh* from being, as the Orientals assert, a production of nature. In a work‖ which does as much honour to his

* *Revue Encyclopédique*. tome xxxv. p. 501.

† *Report of the Society for encouraging National Industry*, December 1821, p. 362.

‡ Our author here labours under a mistake. Such a solution will not affect vessels of platinum, gold, or silver.—Ed.

‖ Senec. *Quæst. Nat.* lib. iii. cap. xxv.

vast knowledge as to his philosophy, Seneca describes a spring near to Tempe in Thessaly, the waters of which are mortal to animals, and penetrate through iron and copper.* In Thrace, in the country of the Cyclops, also, there flowed a rivulet whose limpid water seemed to differ in nothing from common water; yet every animal who drank of it instantly died.†

The water of Nonacris, which corroded iron, and cracked or dissolved vases of silver and of brass, and even those of baked clay,‡ could only have been a solution more charged with corrosive substances than the *Zagh*, and the water of the stream of Tempe. I think, nevertheless, that it was a production of art. Firstly: because it was according to Quintus Curtius a production of Macedonia, and according to many other authors, of Arcadia also, which

* It is probable that this spring contained either free sulphuric acid, or a highly acidulous salt of that acid. Modern chemistry has detected this acid in a free state, as well as hydrochloric acid in the water of the Rio Vinagre, which descends from the volcano of Paraiè, in Colombia, South America. Sulphuric acid is also found in the waters of other volcanic regions. The sour Springs of Byron, in the Genessee country, about sixty miles south of the Erie Canal, contain pure sulphuric acid. Such waters, therefore, would rapidly corrode both iron and copper; converting the former into green, the latter into blue vitriol—sulphates of both metals.—Ed.

† Arist. *De Mirab. Auscul.*

‡ *Q. Curt.* lib. x. cap. ultim.—Vitruv. *De Architect.* lib. III. cap. III.—*Justin.* lib. XII. cap. XIV.—Pausanias. *Arcad.* cap. XVIII. —Plutarch in *Alexandr.* cap. XCIX.—Plin. *Hist. Nat.* lib. XXX. cap. XVI.—Arrian. *De Exped. Alexand.* lib. VII. cap. VII.—Plutarch extends the dissolving virtue of the water of Nonacris to glass and to crystal. The ancients were anxious to exaggerate; and the possessors of the secret probably seconded this disposition with all their power.

could not have been the case unless it was manufactured in both countries. Secondly: Plutarch adds, that it was obtained under the form of a light dew,* an expression which seems to characterise it as the production of distillation. Thirdly: at Nonacris, Herodotus says, they took an oath on the water of the Styx. Stobeus adds that, according to the general opinion, this water possessed the terrible property of punishing perjurers who had dared to swear by it.† If this fact is regarded as the employment of poison in ordeals, we may believe that the water of Nonacris, and the water of the Styx, was a production of Occult Science which rendered it, at will, either innocent or injurious. Fourthly: the water of Nonacris could not be detected by its taste, when mixed with wine, which was not the case with the *Zagh*, nor is it with the water of Enghien, which can be detected, however small the quantity, when mixed with wine or any other liquid. It could not be suspected, says Seneca,‡ either by its appearance or by its smell; similar in this respect to the poisons composed by the most celebrated poisoners, which could only be discovered at the expense of life. In speaking thus, does not Seneca describe a composition analogous to the *acqua Toffana* of the Italians;‖ espe-

* Plutarch. in *Alexander* cap. XLIX.—*Herodot.* lib. VI. cap. LXXV.

† *Herodot.* lib. VI.—J. Stobaci. *Eclog. Physic. De Statu. animarum.*

‡ Senec. *Loc. Cit.*

‖ The *Aqua della Toffana,* or *Acquetta di Napoli,* was the invention of a woman of the name of Toffana, a celebrated secret poisoner, who resided at Naples in the end of the 17th and the commencement of the 18th century. This water was so powerful,

cially when he adds, that its deleterious action is exerted particularly on the entrails, which it contracts and binds, and thus occasions death.

Setting aside historical discussion, it is sufficient for us to draw the attention of our readers to the extent of the apparent magical power which such a secret had put into the hands of the Thaumaturgists. What could they not accomplish, if joined to the power of graduating the effect of poison, they could determine the exact day when the victim should fall? This art has existed at all times in India, where the possession of it is not concealed.* "There are," says a personage in the Eastern Tales,† "all kinds of poisons. There are some which take away life a month after they have been taken: there are others which destroy it at the

that from four to six drops were sufficient to destroy a man. It was sold in small phials, inscribed "Manna of St. Nicholas of Bari," and ornamented with the image of the saint. By thus concealing her drops under the name of a miraculous oil for curing diseases, then in high repute in Naples, Toffana long carried on her abominable trade of assisting heirs to their estates, and wives to new husbands. This violation of a sacred name, however, having raised a loud outcry against her amongst the clergy, the wretched woman was arrested, put to the rack, and afterwards strangled. These drops were stated by Garelli,[a] physician to the Emperor Charles VII., to be a strong solution of arsenious acid in an infusion of the Ivy-leaved Toadflax, Linaria *Cymbalaria*, which was an unnecessary addition, as the arsenious acid is perfectly tasteless.—Ed.

* The Hindoo poison is named *Powst*, and is a preparation of the Poppy.—Ed.

† *Arabian Nights' Entertainments*, Fourteenth night. Story of the Forty Thieves.

[a] Hoffman quotes Garelli's letter to him, in his *Medicinæ Rationalis Symptomata*. tom. II p. 2.; cap. II. § 19, p. 185.

end of two months; and there are others, the effect of which is still more gradual. When a Hindoo widow, in 1822, burnt herself upon the funereal pile of her husband, the Brahmans said frankly to the English observer whom we have quoted,* that had she been prevented or dissuaded from accomplishing the sacrifice, she would not have survived the violation of her vow more than three hours, as they had graduated, for that time, the strength of the poison which they had administered to her.

Aelian,† who mentions the art of the inhabitants of India in manufacturing poisons, the effect of which is slow, and graduated at will, ascribes to them also the possession of a substance, a very small dose of which will occasion almost sudden death, without pain. It was sent to the King of Persia, who promised his mother that she alone should share with him the possession of this valuable poison. In fact, it served as well for murderous political unions, as for the sacred vengeance of the Thaumaturgists.

When the church, scarcely delivered from the persecutions of the Polytheists, was torn by disputes on transubstantiation, which, to use the expression of a great poet, caused Christians to perish martyrs of a dipthong,‡ Saint

* See chap. xvii. *Asiatic Journal*, vol. xv. (1823) pp. 292—293.

† Aelian. *De Nat. Animal.* lib. iv. cap. xxx. cap. xli.

‡ " Lorsque attaquant le verbe et sa divinité,
D'une syllabe impie un saint mot augmenté,
Faisait, dans une guerre et si vive et si longue,
Périr tant de Chrétiens, martyrs d'une dipthongue."
Boileau. *Satire* xii. vers. 199—202.—*Omousios*, unsubstantiate

Athanasius* and his partizans had the imprudence to celebrate the *miracle* which had freed them from Arius. Let the names be suppressed; let the details alone of this

or of equal *essence; Omoiousios,* or of *similar essence.* The dipthong *oi,* which distinguished these two words from one another, was adopted by the Arians, and rejected by their adversaries.

* St. Athanasius was born in Alexandria, A.D. 206, of Christian parents. He received the most liberal education, andprofited by it to a degree that admirably fitted him for the station in the Church which he afterwards filled. Arius, his opponent, was a native of Cyrenaica. He had been expelled the communion of the Church by St. Peter, who had ordained him a Deacon, on account of having joined the Meletians; but having repented, he was re-admitted by Achillas, who had succeeded St. Peter as Patriarch of Alexandria, and was ordained a priest and pastor to one of the churches of Alexandria. The ambition of Arius was disappointed when his patron was succeeded by St. Alexander; and he soon afterwards began to preach the heresy known by his name, respecting the divinity of our Saviour, which caused his second expulsion from the communion of the Church. St. Athanasius was then merely a Deacon; but, in the Council of Nice, he combated so successfully the doctrines broached by Arius, and supported by the followers of the heresiarch, that, on the death of Alexander, he was elected Patriarch of Alexandria, A.D. 326. Soon after this event, the Meletians and Arians having joined, and St. Athanasius having had a sentence of deposition pronounced against him, through the means of Eusebius, Arius made a kind of retraction of his former opinions to Constantine, and was re-admitted to the Church generally, but nevertheless he was refused to be admitted by the Church at Alexandria. It is unnecessary to enter into the history of Arianism, and the various controversies, feuds, and even appeals to arms, which this heresy occasioned. On the recantation of Arius to Constantine, in a third confession of his faith, and his profession on oath to submit to the Nicene Creed, the Emperor, in 336, commanded that the Patriarch should leave his See in case he persisted to refuse admitting Arius to communion, and

unexpected death be recalled;—those which have been transmitted to us by three church historians,* there is no man, however indifferently educated, who will not there recognise symptoms produced by violent poison. No physician would have hesitated to counsel a circumstantial examination, in order to clear up some very plausible suspicions, and no magistrate would have declined to order it. And if it is added, that a few hours before the death, Saint Alexander, the adversary of Arius, was heard addressing fervent prayers to heaven, that rather than the heretic should be permitted to enter in triumph into the church, and his heresy with him, he might be struck dead,† it is not surprising that the partizans of Arius did not think his death natural, although they had supposed it to be a miracle, and that their accusations were sufficiently public, to induce one of their adversaries to think it necessary to pass them over in silence.‡

resolved that he should be received in a solemn manner. St. James, who was then at Constantinople, exhorted the people to have recourse to God by fasting and prayer for seven days; and on the eighth day, the Sunday on which Arius was to have been admitted, that wretched man was found dead in a privy. Socrates relates that he was taken ill of a bowel complaint during the procession. Some writers ascribed his death to poison; but as the Arians ascribed his death to the magical practices of his enemies, the accusation of poisoning was not believed.—Ed.

* Socrat. *Hist. Eccles.* lib. I. cap. XXXVIII.—Sozomen. *Hist. Eccles.* lib. II. cap. XXIX—XXX.—Theodorit. *Hist. Eccles.* lib. I. cap. XIV.

† Theodorit. *Hist. Eccles.* lib. I. cap. XIV.

‡ Sozomen. *Hist. Eccles.* lib. II. cap. XXIX.—From what has been already stated, the Editor cannot avoid blaming our

Such, in those days of discord, was the transport of zeal! The Christians, in the excess of joy which the death of the Emperor Julian occasioned them, indiscreetly published that his tragical end had been foretold by marvellous dreams, and that they perceived in it a signal miracle of the Divine vengeance. The philosopher Libanius,* the friend of the monarch, after his death, and under successors who had very little respect for his memory, boldly declared that Julian had fallen beneath the blows of a Christian assassin. To this imputation an orthodox writer replies, "The fact might be true; and who will blame that man, who for his God and his religion would have committed so courageous an action?"† This shameful glorying in crime, so contrary to the precepts of the religion which the writer believed, may, however, be natural; for it is natural that, in proportion to the keenness of the interests by which they are affected, men become eager, reject reason, and precipitate themselves into delirium and fury.

author for great partiality, in insinuating the charge of poisoning against the opposers of Arius. Such feuds in the Christian Church were undoubtedly most unhappy at the time, for the progress of the true faith, and led to much of the apostacy that followed: but there are no grounds for the accusation of the poisoning of Arius.—Ed.

* Libanius was a native of Antioch, in Syria. He became so celebrated a teacher of rhetoric, that, although a Pagan, yet he numbered some Christians amongst his scholars; and was on intimate terms with Saint Basil. He was the personal friend of Julian; and, being adverse to the Christians, his assertions respecting the death of the Emperor can, therefore, be scarcely regarded as worthy of much credit.—Ed.

† Sozomen. *Hist. Eccles.* lib. vi. cap. ii.

It must be lamented that in every nation, the ancient priests enjoyed an influence equally infallible and mysteterious, in submitting the judgment of crimes to ordeals, more especially to those of beverages prepared by their hands; and which were generally deadly or innocent beverages, according to their wish to save or to destroy the accused person.

The Hindoo law, the most ancient of all, is the only one which dares frankly to utter the name—poison. The accused who submits to this ordeal, in taking the poison which he is about to drink, believes that it will change, if he is innocent, into a delicious draught.* This is a remarkable formulary, which, conformable with what we have elsewhere declared, addresses itself to the physical agent as if it were a being endowed with supernatural power and knowledge; as, for instance, a genius, or a God.

Sometimes the trial was confined to swallowing the water in which the priest had bathed the image of one of the divinities,† which, although less formidable in appearance, yet was, in fact, as decisive.‡

* *Asiatic Researches*, vol. I. pp. 473 and 486.

† Refer to vol. I. chap. VI.

‡ *Asiatic Researches*, vol. I. pp. 474 and 486.—Upon the different ordeals employed among the Hindoos, namely, those of fire, of a weight, of freezing water, of scalding oil, of the serpent, of poison, &c., see Dubois, *Mœurs et Coutumes des Peuples de l'Inde*, tome II. pp. 546—554. There is not one of them, the success of which does not depend on the will of the priests.

The Hindoo code of laws is a pure theocracy, the law-giver being supposed to promulgate nothing but what was revealed to him by the Divinity; hence the unconditional and implicit obedience which the people yield to their priests, who must be necessarily the interpreters of revealed laws. Princes are even subject to

In Japan, the accused is obliged to swallow, in a cup of water, a piece of paper, on which the priests have traced magical characters and pictures; and this beverage tortures him cruelly, until he has confessed his crime.*

Guided, probably, by ancient tradition, more than by any knowledge which belongs to them, the Arabs practise similar trials.

The negroes of Issyny dare not drink the water into which the *Fetiche* has been dipped, when they affirm what is not the truth.† Before consecrated water could inspire so great a fear, must there not have been several examples to prove its deadly efficacy?

The initiated of *Para-belli*, a very powerful religious society in the interior of Southern Africa, prepare, among the Qojas negroes, a water of trial, which is thrown over the legs, the arms, or the hands of the accused. If the water burns him, he is declared guilty; if it does not burn him, he is innocent.‡ Is not the mysterious com-

them; and, so far, does the assumption of power by the Brahmans extend, that we find these words in the *Institutes of Menu:*— "What Prince could gain wealth by oppressing those (Brahmans), who, if angry, could frame other worlds; and could give being to other Gods and to other mortals."[a] After such an assumption in the priesthood, the degree of superstition and mental degradation, which has kept the condition of man servile and stationary in India, will no longer excite surprise; for, what follows so closely in the steps of superstition, as popular ignorance, mental despotism, and barbaric tyranny?—Ed.

* Koempfer. *History of Japan*, book III. chap. v. p. 51.

† Godefroy Loyer. *Voyage to the Kingdom of Issyny.*

‡ O. Dapper. *Description de l'Afrique*, pp. 269—270.

[a] *Institutes of Menu*, chap. IX. verse 315.

position of the water, and the care that is taken to wash the limbs before they are exposed to its action, sufficient to explain the assumed miracle ?

Among the Qojas, and among numbers of other African tribes, a person suspected of poisoning is made to drink a very acid liquid, prepared by scraping the inside bark of the *Quony* tree, from which the sap has been first pressed out, into water. The accused who survives the trial is declared innocent ; he who dies is pronounced guilty.* It may be believed that the care with which the bark is pressed, decides the fate of the accused. In other countries, the accused is obliged to drink a liquid prepared by the hands of the priests : in Monomotapa he is condemned if he vomits it ; and in the kingdom of Loango, if the liquid has a diuretic effect upon him, he is also condemned.†

Nations more advanced in civilization, have authorized those trials in which the Divinity is called upon to work a miracle to manifest the truth. At Rome, in the time of Cicero and Horace, a master who suspected that his slaves had robbed him, conducted them before a priest. They were each obliged to eat a cake over which the priest had pronounced some magical words, (*carmine infectum.*) This plan undoubtedly discovered the author of the theft.‡ Near Tyana, an inexhaustible spring of very cold, but always bubbling water, (water strongly gaseous), served to test the truth of vows. The truthful man drank of it with impunity ; the man guilty of a

* O. Dapper. *Description de l'Afrique.* l. c. p. 263.

† *Ibid.* pp. 325—326 and 392.

‡ Acron. in *Horat. Epist.* lib. 1. Epist. x. verse 9.

false vow, if he dared to taste it, saw his body covered with blisters and abscesses, and was so deprived of his strength, that he could not quit the place until he had confessed his perjury.*

Christianity has not altogether rejected these kind of ordeals. The fountain of *Wieres*† is still celebrated in Picardy. The unfaithful wife of Saint Genoulf dared to plunge her arm into it, vowing that her conduct was irreproachable: but her arm immediately became withered. The fountain however is now less malicious, and all women wash their hands in it with impunity. It may, therefore, be believed that this ordeal has not been always harmless; and that, more than once, the terror which it inspired had restrained many from attempting it. This has often occurred with other ordeals. The collections of anecdotes are replete with stories of the guilty, who, by the fear of a miracle, have been induced to confess their crimes. Here we repeat the reasonings that we have already offered, that fear would not have been occasioned, if preceding experiments had not proved that the ordeal was sometimes well founded. It was so managed that the promised miracle should not exceed the powers of the Thaumaturgist.

Death was not the only revenge which was foretold by the interpreters of an irritated God. Turning against his enemies the secrets of the sacred science with which he was armed, with more address and less danger to him-

* Philostrat. *Vita Apollon.* lib. I. cap. IV.

† A fountain situated near Samer, department of the Pas de Calais.—*Mémoires de l'Académie Celtique,* tome v. pp. 109—110.

self, the priest often reserved to himself the power of producing a second miracle in favour of repentance.

A very bright light, such, for example, as the Bengal fire, can dazzle the eye so effectually, that the power of seeing will remain suspended for some time. At the taking of Milet by Alexander, when the soldiers entered the temple of Milet to despoil it, so strong a light shone forth from the sanctuary, that the soldiers were struck with temporary blindness.* But the effect produced by such a method of revenge is of very short duration; and its success depends too much on the concurrence of favourable circumstances to permit it to be often practised.

Near the river Archeloüs grew the plant *Myope*;† it is impossible to rub the face with it, without losing the sight. The leaves of the *Stramonium* possess a property differing very little from the *Myope*. A young man having accidentally spurted a drop of the sap into his eye, remained for several hours deprived of the use of the organ.‡ We know, in this day, that the extract of *Belladonna*, diluted with water, paralyses for a time the organ of sight. To seize the propitious moment for causing the poisonous substance to act, and for working the miracle, requires nothing more than address. Thus, with the talents of the Juggler aiding the science of the Thaumaturgist, the histories of men miraculously struck

* *Valer. Maxim.* lib. I. cap. I.—Lactant. *Divin. Instit.* lib. II. cap. VII.

† Plutarch. *de Nomin. Fluv. et Mont.* § XXII.—M. Vallot, of the Academy of Dijon, is of opinion that this plant was a kind of *Tithymale*, most probably Euphorbia *officinarum*.

‡ *Bibliothèque Universelle des Sciences*, tome IV. p. 221.

blind, and as miraculously recovered, present nothing improbable.

Endemic diseases, which ravage a country, an army, a city, sometimes assume so malignant a character that ignorance believes, and policy *feigns* to believe them as contagious as the pestilence.

Formerly, before the oracles were abolished, desolated populations had recourse to them; and it was the wish of the oracles that the people should always recognise in these diseases the vengeance of Gods, justly irritated against their worshippers. This belief, being once established, the priest menaced countries rebellious to his commands with the invasion of the plague: more than once he has announced the appearance of it at a certain time, and his prophesy has been fulfilled. It was, in fact, easy for him to found his opinion upon probabilities, equivalent to certainty; it is only requisite to have observed beforehand the return of circumstances capable of reproducing these diseases. It was this science in ancient Greece which procured for Abaris* the reputation of being a prophet. The same observations will, at the present time, serve for similar predictions, although the honest man will confine himself to indicating precautions for preventing the evil; and he is afflicted if, in neglecting them, a triumph is provided him of passing for a true prophet.† But instead

* Iamblich. *in Vit. Pythag.* lib. I. cap. XXVIII.

† In 1820, the Port of Roquemaure (an arrondissement of Uzes, department of Gard), was discovered to be surrounded by stagnant waters in those places where the Rhone had been turned from its course. M. Cadet, of Metz, predicted that, from the month of March, the country would certainly be ravaged by an endemic

of the philosophical observer, let us substitute a Thaumaturgist; would not the coincidence of the prophesy, and of the disaster strike many minds, even at this day, with a deep and religious terror?

fever, if, before summer, the river was not restored to its old bed. The works could only be completed in autumn, and the summer saw Roquemaure depopulated by raging fevers. (*Letter from M. Cadet, of Metz, to the Minister of the Interior,* March 23, 1820.)

## CHAPTER VI.

Sterility of the soil—The belief in the means which the Thaumaturgists were supposed to possess for causing sterility arose particularly from the language of emblems—Sterility produced naturally—Cultures which injure one another—Substances which are prejudicial to vegetation—The atmosphere rendered pestilential—Deleterious powder and nitrate of arsenic employed as offensive weapons—Earthquakes and rumblings of the earth foreseen and predicted.

THE threats of celestial anger were not alone pointed at isolated individuals; they were not alone confined to the production of transitory diseases: they raised alarms in a whole people that the earth would deny them its fruits; that mortals would only inhale death from the air; that under their feet the trembling earth would sink and open in abysses; or that rocks, shaken from their foundations, would roll upon them, and crush them to atoms.

The habit of observation, assisted by reflection and enlightened by reasoning, imparts to mankind some plausible idea of the results of the different cultures to which he devotes himself. Thales, in purchasing before

hand, a crop of olives, the fecundity of which he had prophesied,* proved to the Milesians that the philosopher depended only upon his scientific skill to obtain wealth. If the Thaumaturgist also could thus predict an abundant harvest, he might be able to predict others less abundant; being enabled also to foresee a true famine, they have the power of threatening the people with it. Should the event justify his prophesy, he would be regarded not merely as the *interpreter*, but as the *agent* of the Gods, who had thus punished guilty mortals by the scourge of famine.

Nevertheless, how distant is this point still from that absolute sterility with which the imprecations of a sacred man, or the maledictions of a perfidious magician, were formerly believed to strike *plants*, *trees*, or even the *soil!* This remark will scarcely escape a judicious reader, when he reflects that, according to the principle upon which I have constantly reasoned, some positive facts have given birth to the opinion of the possibility of this terrible means of vengeance. In the eloquent menaces that Eschylus ascribes to Eumenides,† I can only perceive the expressions of poetic enthusiasm and the hyperbole which belong to the Oriental style.

In vain I recal to remembrance the inclination which man always has had to ascribe, to the wrath of the Gods, scourges the cause and the remedy of which nature has hidden from him. The edifice which I have attempted to raise is shaken, if the belief in apparent miracles has

* Diogen. Laert. *in Thalet.*

* Aeschyl. *Eumen.* vers. 783, 786, 803, 806, &c.

no other origin than some transient predictions, and the dreams of a terrified imagination.

Let us first retrace the influence of the language of emblems, and then observe how its power has been effectual in misleading writers of veracity, when they have related similar menaces, the accomplishment of which they have themselves witnessed in foreign countries.

For a long period of time, when a conquered city was condemned to eternal desolation, salt was sown among its ruins; and, in the face of experience to the contrary, the property of rendering the earth unfruitful was for a long time attributed to salt. Let us turn our eyes towards those climates where, in immense deserts, salt is seen every where effloresced on the surface of the ground. There one privileged spot may be seen productive. An enemy invades it, disperses its inhabitants, fills up its wells, turns the course of its rivers, destroys the trees, and burns up its vegetation; and this previously fruitful spot is confounded with the desert which surrounds it; and almost immediately, under a burning sky, the despoiled soil becomes covered with the saline efflorescence, the forerunner of future sterility. The emblem of salt strewn upon the earth was most expressive, therefore, in those countries where this phenomenon was known: better than an edict, better than the sound of trumpets and the voice of heralds, it proclaimed the will of the destroyer; it announced that the country should remain uninhabited, without cultivation, and devoted to eternal sterility. The menace was not vain; even where climate and the effects of time did not hasten the work of violence.

What a conqueror is to a weak people, so is the wicked man to a defenceless fellow-being. The Roman law punished as a capital offence that which may appear to us as a trivial delinquency, namely, the act of putting stones on the inheritance of another person. But in the country to which this law belonged, in Arabia, *Scopelism*,* such was the name of the crime, was tantamount to the threat that whoever should dare to cultivate an inheritance thus insulted would perish by a violent death. That this mute language was understood, and that the field remained from that time uncultivated and sterile, was a sufficient reason for the seriousness of the punishment carried out against this emblematical threat. Let us transfer, without any explanation, the indication of this fact into a different order of things; the emblem of *Scopelism*, like that of salt, would soon be regarded as a physical agent capable of destroying the earth by rendering it unalterably sterile.

Sterility is known to be the result of natural causes. Agriculturists know that every perennial plant with a tap root, such as the Luzerne,† sown at the foot of young and delicate trees, injures their growth, and frequently destroys them. The Thaumaturgists were able to collect several observations of this kind, and they thus acquired the power of predicting the unfruitfulness of trees, and the barrenness of corn-fields, when the imprudence of the cultivator placed such mischievous neighbours near useful

* "Scopelismus, *lapidum positio—lapides ponere indicio futuros quod si quis eum agrum coluisset malo letho periturus esset*, &c." *Digest.* lib. XLVII. tit. XI. § IX.

† Medicago *laciniata*, a native of Syria.—ED.

vegetables; and, as may be supposed, their predictions were frequently fulfilled. The parable of the Gospel, which describes tares being sown, in the night amongst the wheat, by the enemy of the proprietor,* evidently alludes to a known and even a common delinquency. No police, and especially no rural police, existed among the ancient nations; hence every one was the guardian of his own property. It was then much easier, than it is at this day, to injure a field already sown, by treacherously scattering other seed over it, whether it was expected that the person thus acting would profit by the antipathy existing between divers plants, or that the result would be the choking of the good grain by the excess of a useless plant.

From the judicial avowals of several pretended sorcerers, it appears that, among the inventions taught in the *Sabbat*, the composition of powders for injuring every kind of crops, for drying up plants, and blasting fruits,† were included. All that has been related by these wretched beings as to their occupations there, we have considered as dreams; but as dreams founded upon the recollection of ancient practices. To the tradition of the possibility of the assumed miracle, was attached the idea that it could still be worked.

A Chinese book,‡ the antiquity of which is undoubted, notices the crime of destroying a tree, by watering it secretly with poisoned water. According to ancient traditions, individuals, envious of the fertility of their

* The Gospel of St. Matthew, chap. XIII. vers. 24—28.

† Llorente. *Histoire de l'Inquisition.* tome III. pp. 440—447.

‡ *Le Livre des Récompenses et des Peines,* translated by M. Stanislas Jullien, p. 346.

neighbours' fields, threw upon them a Stygian water* to destroy their fertility. Theophrastus, quoted by St. Clement of Alexandria, affirms, that if the shells of beans are buried among the roots of a tree recently planted, the tree decays.† To obtain a similar result, even to a great extent, Democritus has directed that the roots of trees should be watered with the juice of the hemlock (Conium *maculatum*), in which the flowers of the Lupine have been steeped.‡ I am ignorant whether experience has ever confirmed these assertions; but they indicate that some efficacious secret was concealed under a veil, more or less dense, and that the ancients were not ignorant of the existence of a process capable of destroying plants and trees. Recent experiments have proved that, to succeed in producing such an event, it is only necessary to spread upon the soil a combination of sulphur and lime, in the proportion of fifteen parts of the former to one of the latter; a combination which is found to be formed in the residue of the lixivium, which is used in making curd soap; and in the residue of the artificial fabrication of soda. It is also proved, by daily observation, that the waters proceeding from coal-pits, and from the workings of metallic mines, first change, and finally destroy vegetation, upon every soil which is watered by them: and is it not natural to connect these waters with that *Stygian* water, of which the Telchines, a race celebrated in the art of excavating mines, and of working

* See the Scholiaste of Stace. *in Thébaid.* lib. II. verse 274. verbo. *Telchines.*

† S. Clement. *Alexandr. Stromat.* lib. III.

‡ Plin. *Hist. Nat.* lib. XVIII, cap. VI.

brass and iron, were accused of employing for so guilty a purpose. But it matters little, as we have thus observed, more than once, whether these mischievous properties were formerly known or discovered by the founders of modern sorcery, the *possibility* of their being known is unquestionable; and the belief established among the ancients, and verified by the assertions of Theophrastus and Democritus, is unrefuted, that a natural process was sufficient to realise this possibility.

Let us apply the same reasoning to the terrible art of rendering the air pestilential. Natural phenomena were doubtless, at first, attributed to the vengeance of the Gods. Under the government of Marcus Aurelius, a temple at Seleucia was delivered up to be plundered: the soldiers having discovered a narrow aperture, entered it, and broke open a door which had been carefully shut by the Chaldean priests. Suddenly there was exhaled a lethiferous vapour, the disastrous effects of which extended itself to some distance.* It was, I believe, a gas similar to that which sometimes escapes from mines, and from deep and deserted wells.† From two gulfs,

* Amm. Marcell. lib. XXIII.—*Jul. Capitol. in Aelio-Vero.*

† The deleterious gas, mentioned in the text, must have been chiefly, if not wholly, carbonic acid gas, which frequently accumulates in old cellars that have been long shut up, especially if they have contained any fermentable, vegetable matter. It was not the *fire-damp*, or gas exhaled in mines, which consists almost solely of light carburetted hydrogen: and which issues from fissures in the beds of coal; and, being light, collects in the upper part of the mines, owing to deficient ventilation. This gas is very explosive when mingled with atmospheric air, and prior to Sir Humphrey Davy's invention of the safety-lamp, frequently proved dangerous to miners, when the atmosphere of it sunk so low down in the pit as to be fired

one near to the borders of the Tigris, and another situated near Hierapolis of Phrygia, there arises, in the same manner, a vapour mortal to every animal that inhales it.*

According to a tendency which we have already noticed, art has attempted to imitate the modes of destruction which nature produces; and at different periods, certain traces have been found of these means having been employed as offensive weapons. In 1804, the French Government accused the English sailors of having attempted to poison the atmosphere of the coasts of Bretagne and of Normandy, by leaving on shore horns containing burning nitrate of arsenic. Several of these horns being extinguished, they were collected, and their contents having been chemically examined, no doubt remained of the nature of the composition with which they

by their candles; but it is not so poisonous when breathed as carbonic acid gas, *fixed air*, which destroys life even when mixed with an equal portion of pure atmospheric air. Carbonic acid gas causes a sensation of giddiness, ringing in the ears, dimness of sight, drowsiness, and hurried respiration; and the debility, which also attends it, comes on so suddenly, that the person is unable to make his escape, and falls down insensible; hence the dread and horror which it must have occasioned in the Roman soldiers, when their comrades nearest the door were immersed in the flood of this gas which rolled from the apartment. This gas is also considerably heavier than atmospheric air; and, therefore, when those who fell first were attempted to be raised by their companions, the necessity of stooping would bring them also into the same atmosphere, and thus increase the number of victims. Ignorance would be most likely to deem their deaths a punishment for the sacrilege.—Ed.

* Amm. Marcell. lib. xxiii.—The modern Bambuk-Calasi. —Ed.

were charged.* The enemies of France, in this instance, only renewed and perfected an invention which, in Europe, followed close upon the invention of cannon. At that time, bombs and grenades were filled with a powder prepared for the purpose; and these projectiles, in bursting, diffused, to a great distance, an odour so deleterious, that it proved mortal to all who had the misfortune to inhale it. Paw, who has discovered in an Italian pyrotechnic the composition of this offensive powder, recollects that a trial of it was made in London with a melancholy result.† A long time before, if we may believeS trabo,‡ the *Soanes*, not contented with wounding their enemies with poisoned weapons, endeavoured to suffocate, with poisonous exhalations, those warriors whom they were unable to strike. It is evident that this poisonous odour developed itself only in the enemy's ranks; for, if such had not been the case, it would have first destroyed the men who carried the weapons which concealed it. It will be necessary to distinguish these weapons from poisoned arrows, and to suppose that they were filled with a composition similar to the exploding powder; a composition which acted either on the rupture of the vessel containing it, or by the contact of fire. As this secret was known by the barbarians of the Caucasus, it might have been also

* See the Newspapers of 1804.

† Paw. *Traité des Flèches empoisonnées* (inserted in vol. XII. in 4to. of the translation of Pliny's Natural History), pp. 460—470. Paw calls into question the efficacy of this offensive powder. We think, with him, that it was trifling, since the use of it was so speedily abandoned.

‡ Strabo. lib. XI.

known amongst more enlightened nations. Its nature might have been understood also by the Thaumaturgists, and have been made the origin of a belief in the apparent miracles which rendered the air pestilential.

If the iniquity of man can injure the fertility of the soil, and the salubrity of the air, it is not so easy for him to shake the earth, and to cause mountains to roll upon the people, whom his hatred has devoted to destruction. But if signs, which escape the observation of the unobserving vulgar, warn him of the approach of some great convulsion of nature, and if he dares to predict it, whether with the intention of calling his fellow-creatures to prevent the sad consequences of the event, or to induce them to see in it the effects of the vengeance of the Gods, what glory and what power will be his share, when the event shall have confirmed his prediction!

Iamblicus* attributes the possession of this wonderful sagacity to Pythagoras, to Abaris, to Epimenides, and to Empedocles. At a much later period, in the thirteenth century of our era, a monk, wishing to persuade the Emperor Andronicus to recal the Patriarch, Saint Athanasius, threatened him with divers scourges, and, amongst others, with that of an earthquake; and three days had scarcely elapsed, when many shocks, not indeed dangerous, were felt in Constantinople.†

Is it necessary to reject this recital, and the assertion of Iamblichus: and should we forget that Pherecydes, the first master of Pythagoras, in tasting, or only in looking at the water drawn from a well, announced to the

* Iamblich. *Vit. Pythagor.* lib. I. cap. XXVIII.

† Pachymer. lib. X. cap. XXXIV.

inhabitants of Samos an approaching earthquake?* or ought we, with Cicero, to reply, that the thing is impossible? Thucydides was enabled to discover the connexion that exists between volcanic fermentations and earthquakes; and the appearance of water generally pure and clear, becoming suddenly muddy and sulphurous, was sufficient to enable him to foresee the phenomenon which he predicted. In 1693, at Bologna, in Italy, the waters became muddy on the evening of an earthquake.† This observation is not singular: the water of several wells beeame equally muddy, a few days before the earthquake which was felt in Sicily in the month of February 1818.‡ The symptoms of the approaching disaster might even appear much sooner. There was an eruption of a volcano at the summit of Mount Galoungoun, in the island of Java, on the 8th of October 1822. In the preceding month of July, the waters of the Tji-Kounir, a river which rises in the same mountain, were seen to become troubled; they had a bitter taste, and exhaled a sulphureous odour; and a whitish scum‖ settled upon the legs of travellers who forded the river at that time. The prophecy of Phe-

* Diogen. Laert. *in Pherecyd.*—*Plin. Hist. Nat.* lib. II. cap. LXXIX.—*Maxim Tyr. Dissertat.* III. § V.—*Cicer. de Divinat.* lib. I. cap. L. lib. XIII.—Iamblique (*Vit. Pythag.* lib. I. cap. XXVIII.) attributes this prediction to Pythagorus.

† *Histoire de l'Académie des Sciences, année* 1696. Buffon. *Hist. Nat.*—*Preuves de la Théorie de la Terre.* art. XI.

‡ Agathino Longo. *Mémoire Historique et Physique sur le Tremblement de Terre,* &c. *Bibliotheca Italiana,* September, 1818. —*Bibliothèque Univ. Sciences.* tome IX. p. 263.

‖ *Bulletin de la Société de Géographie.* tome XII. p. 204.

recydes, founded upon observations of a similar description, was that of a sage, and not of an impostor.

From the passage quoted from Iamblichus, it may be concluded, that the art of foreseeing earthquakes was common among the first masters of the Pythagorean school. It must have been a portion of the secret science among the ancients. Pausanias, who believed these phenomena to be the effect of the wrath of the Gods, enumerated, however, the signs which preceded and announced them.* Pliny adds to the indication of these signs, the number of which he does not omit to reckon, the fœter and the change of colour of the water of the neighbouring wells. He also discusses the proper methods of preventing the return of the scourge, and advances the plausible opinion, that they may sometimes succeed, by digging very deep wells, in those countries where it has been felt.†

Let us suppose, that in the Island of Hayti, a strange population were to establish itself. Whilst living under the most beautiful sky, and in the midst of productions of a fruitful and rather prodigal soil, let us imagine that a subterraneous noise, a tremendous sound, should occur to alarm their minds, and that the chief who conducted the colony to this shore, assembles them together. Let us then suppose that he announces to them that the Gods, irritated with their want of submission to his commands, are going to shake the earth from the depths of the valleys to the summits of the hills. They would, probably, laugh at a prediction that appeared to

* Pausanias. *Achaic.* cap. XXIV.

† Plin. *Hist. Nat.* lib. II. cap. LXXXI.—LXXXII.

belie the universal tranquillity; and they would give themselves up to indifference, to pleasure, and to sleep. But suddenly the threat is accomplished in all its horror. The terrified population simultaneously prostrate themselves, and the chief is triumphant. How often will not this phenomenon be renewed before experience teaches what at this day is known by the most ignorant of the blacks, that the noise known by the name of Gouffre, is a presage, as natural as it is certain, of an approaching earthquake, and not the voice of an angry God, nor the announcement of his inevitable revenge.

It was a subterraneous noise of a particular kind, which announced to a Peruvian observer, the earthquake which desolated Lima in 1828,* and led him to predict it four months before it occurred.

Nine lustres before the above period, a similar prediction had proved the perspicuity of a French scholar. In 1782, M. Cadet, de Metz, observed very thick sulphureous vapours over all the plain which serves as a basis to Calabria. He concluded, from this appearance, that the country was threatened with an earthquake, and publicly predicted the disaster, which took place at the commencement of 1785.†

* M. de Vidaurre. This scholar revived the opinion of Pliny regarding the possibility of preventing earthquakes, by digging very deep wells. See the *Moniteur Universel*, No. for August 27, 1828.

† The notes in which he had consigned his prediction were added to the archives of an Agricultural Society, founded in Corsica by the Intendant, M. de Boucheporn. The latter, writing in April 23, 1783, to M Joli de Fleury, then minister, recals the prediction of M. Cadet, with details much anterior to the event. M. Denon also recals it in a letter addressed to M. Cadet, dated April 19, 1783.

About the same time, a subterraneous road was dug through the Alpine mountain, called Tenda, with the intention of opening a direct communication between Piedmont and the province of Nice: the nature of the mountain rendered the soil easily penetrable to the filtration of waters. The same scholar announced the fast approaching falling in of the subterraneous passage, and solicited the suspension of the works: but the engineers did not dream of profiting by his counsels until the event proved how well his fears had been founded.*

Anaximander† foretold to the Lacedæmonians a subterranean concussion, and the fall of the Peak of Taygetes; doubtless his foresight depended on the observation of analogous symptoms as to the nature of the soil, as well as of phenomena which were the precursors of an earthquake. Anaximander, Pherecydes, the Peruvian observer, and our own countryman, were only philosophers; but had any one of them been a soothsayer, the adoration for the Thaumaturgist would have succeeded to the esteem for the sage.

* Cadet of Metz. *Histoire Naturelle de la Corse.* note *aa.* pp. 138—147.

† Plin. *Hist. Nat.* lib. II. cap. LXXVIII. Cicer. *De Divinat.* lib. I. cap. L.—Anaximander was a Milesian, a disciple of Thales, and a consummate mathematician for the period in which he lived. —Ed.

## CHAPTER VII.

Meteorology—The art of foreseeing rain, storms, and the direction of the winds; this is converted in the minds of the vulgar into the power of granting or refusing rain, and favourable winds —Magical ceremonies for conjuring a hail storm.

DIFFICULT to be foreseen, and followed by results still more difficult to be repaired, are the crumbling of mountains, earthquakes, and all great convulsions of nature; but they are happily rare. Such is not the case, however, with many atmospheric phenomena, attendant upon the course of the seasons, the months, and the days; phenomena the occurrence, the repetition, and the variation of which promise to mankind enjoyments or privations, and the laws regulating which, although formerly inscrutable, have yet been at length partially revealed to persevering and reflective observation. The knowledge which has been acquired on this subject constitutes meteorology; a branch of science destitute of fixed principles, and without particular truths, but which has been, in all ages, most powerful in acting on the

credulity of mankind.* It influences the fate of the labours of the year; of the subsistence of the morrow; or that of to-day; and, stimulated by present sufferings, or by anxiety for the future, the curiosity which awakens the desire to know what may be expected from atmospheric phenomena, becomes excuseable to man when we consider his hopelessness; the intensity of his fears; and the excess of his gratitude under such circumstances. Every menace would be

* The limited extent of information in meteorology, and the laws which regulate aërial phenomena and perturbations, is mortifying to the pride of science. When atmospheric changes occur of a violent and desolating nature, man becomes conscious how little he is acquainted with their causes; and how inadequate his means are even to shield himself from the fury of elements which he cannot control. He is forced to tremble upon his hearth, the slave to the apprehension of anticipated evil; and powerless to await the spontaneous lulling of the sweeping tempest, and the driving hurricane. It is, however, gratifying to know that, of late years, some progress has been made in the philosophy of storms; and we must, therefore, hope that a more effectual investigation into the origin and laws of these overwhelming disturbers of atmospheric quiet, may lead to some practical means of evading their fury, and foretelling their approach. Some progress, indeed, has been made in the latter: for example, in the hurricane which desolated Barbadoes in 1831, Mr. Simons, of St. Vincent, before it reached that island in its passage from Barbadoes, observed a threatening cloud in the north, of an olive-green colour, which indicated an approaching aërial conflict. He hastened home, and, by nailing up his doors and windows, saved his habitation from the general calamity. If the power of predicting atmospheric conflicts formerly existed, when ignorance contemplated every acquirement which was not universal as a direct gift from Heaven, we can scarcely wonder that those who possessed meteorological knowledge were regarded as little less than divinities.—Ed.

listened to with religious submission; and all prognostics that call for salutary precautions against great disasters, or in pressing urgency, reanimate almost extinguished hope, would be hailed as celestial inspirations.*

"The Cape of Good Hope is famous for its tempests and for the singular cloud that precedes them; this cloud appears at first like a little round spot in the sky; and sailors call it the bull's eye. In the land of Natal, a little cloud also forms itself like the bull's eye of the Cape of Good Hope, and from this cloud there seems to issue a terrible wind, that produces the same effects. Near the coast of Guinea, storms are also announced like those of the Cape of Good Hope, by a small black cloud; whilst the rest of the heaven is usually very serene, and the sea calm."† Is it requisite to direct the attention of the reader to the consideration of the marvellous predictions produced by the knowledge of these symptoms of approaching storms, and the astonishment thereby created among men who could have no cognizance of them; or ask him if he would be astonished at Anaxagoras and Democritus in Greece, and Hipparchus at Rome, all three accustomed, no doubt, by observation, to judge of the state of the atmosphere, having in fine weather predicted abundant rains, which of course, when they fell,

* Many valuable observations on the statistics and philosophy of storms are contained in the Treatises of Lieutenant-Colonel Reid, of the Royal Engineers; and those of Mr. William C. Redfield, of New York; and there is much reason for hoping that the foundation having been laid by these able observers, a superstructure may be raised, honourable to science, and practically beneficial to the human race.—Ed.

† Buffon. *Hist. Nat. Preuves de la Théorie de la Terre.* art. xv.

justified the clear-sightedness of the three naturalists?* When a drought had lasted a long time in Arcadia, the priest of Jupiter Lycæus addressed prayers and offered a sacrifice to the fountain *Hagno;* and then touched the surface of the water with an oak branch. Suddenly there arose a vapour, a mist, and a cloud, which soon dissolved into abundant rain. The priest, no doubt, did not attempt to operate the assumed miracle until promising circumstances guaranteed success. Thus in modern Europe, the priests never carry the shrines or images of saints in procession, or order solemn prayers for the restoration of fair weather or for rain, until they are able to reckon on the near approach of the one or the other.

Many atmospheric phenomena exercise so great an influence on agricultural labours, that to the art of foreseeing the one is naturally joined the hope and the possibility of divining the success of the other.† There

* Plin. *Hist. Nat.* lib. XVIII. cap. XXVIII. Diogen Laert. *in Thalet.* Cicer. *de Divinat.* lib. I. cap. III. Aristot. *Polit.* lib. I. cap. II.—Hipparchus was an astronomer, who flourished between the 154th and 163d Olympiads. He predicted the times of eclipses; discovered a new star, and also the procession of the equinoxes, and the parallœx of the planets. After a life of labour in the cause of science, he died 123 years before the Christian era.—ED.

† Simple observation alone is often sufficient to enable such predictions to be successfully advanced. Sir Isaac Newten, one fine morning, taking an accustomed ride, was accosted by a cowherd, and assured that he would soon be overtaken by a shower. As the sky was cloudless and the sun brilliant, Sir Isaac disregarded the remark and rode on: but, before he had proceeded far, a heavy shower fell. The philosopher immediately rode back to ascertain the foundation of the prediction. "Well, Sir," replied the countryman, "all I know about it is this—my cow always twirls her tail in a particular way before a shower."—ED.

is nothing at all improbable in a fact related both by Democritus and Thales, who, it is said, were able to foretell what would be the produce of the olive-trees. These philosophers only made use of their success to prove to the detractors of study how science might lead to wealth. If they had pretended, however, that heaven had revealed its secrets to them, they would have been listened to with greater admiration. Science, cultivated by the followers of learning, or by the disciples of the priesthood, has been able to extend its foresight still farther; and, consequently, observations on the habitual course of the winds and tides of certain latitudes, would enable either an oracle or a philosopher to announce the success or unfortunate issue of a voyage. Thus, in the present day, such issues have been predicted many years previously, by anticipating what obstacle the movement, which carries the icebergs to the east or to the west would oppose to the attempts of navigators to reach the Arctic Pole; and that as long a time as they would take for sailing from the west to the east would be required also for the voyage. But to an ignorant people, only accustomed to regard the physical sciences environed by the marvellous, these circumspect announcements of learned foresight would not have sufficed, in order to satisfy impatient desire; it was, therefore, necessary to transform these prognostics into positive assurances. Thus the priests of Samothrace* promised to those who came to consult

* Samothrace is situated on the Thracian coast, and peopled by Pelasgians. It was so celebrated for its mysteries, that it obtained the name of sacred; and its shrines were resorted to by pilgrims from every country.—Ed.

them, favourable winds and a happy voyage. If the promise was not realised, it was easy to exculpate the Divinity, by alleging (whatever might have been the faults of the candidate, or the harm done to his boat,) that he was guilty of some crime, or, what was worse, some want of faith.

The Druidesses of the isle of Sena also pretended to the power of appeasing waves and winds;* and, doubtless, it was by the same artifice they preserved their title to infallibility.

Empedocles and Iamblicus only repeated the language of the temples, when the one, in his verses, boasted of being able to teach the art of enchaining or loosing the the winds, exciting the tempest, and calming the heavens;† while the other ascribed to Abaris and Pythagoras a power no less extended.‡

Such promises were too flattering to credulity not to be taken in the most literal sense. Contrary winds were at Ulysses' return shut up in a leather bottle by Eolus, and liberated by the imprudent companions of the hero. The Laplanders believe that their magicians possess the power attributed by Homer to the God of the winds. Do not let us mock their ignorance; at least, it does not render them unjust or cruel.

The belief that endowed the adepts of philosophy with the power of arresting and enchaining the winds, existed in the fourth century, even among men enlightened by

* Pomponius. *Mela.* lib. III. cap. VI.

† *Diogen. Laert.* lib. VIII. cap. LIX. S. Clement. *Alex. Stromat.* lib. V.

‡ Iamblich. *Vit. Pythagor.* lib. I. cap. XXVIII.

Christian knowledge. Constantinople, encumbered with an immense population, suffered from famine. Vessels freighted with corn were stopped at the entrance of the straits; they could only pass them by a south wind, and they still awaited this propitious gale. Jealous of the favours which the philosopher Sopater* received from Constantine, the courtiers accused him of having enchained the winds, and caused the famine; and the weak Emperor had him put to the torture, and murdered.† It mattered little whether the denouncers themselves believed in the truth of the accusation; it is clear that the Prince and the people regarded the thing as possible, and as a fact of which many examples were already known.

We shall no longer doubt this, when we find that in the eighth and ninth centuries, among the number of magicians proscribed by Charlemagne, some were designated by the name of *tempestarii*, or those who regulated storms, tempests, and hail.‡

Did this superstitious belief, and the agitation excited by it every where disappear before the progress of civilization? We believe not. On one occasion, when excessive rains were unpropitious to the labours, and destroyed the hopes of the agriculturist, the long conti-

* Sopater was a native of Apamea, and like his master, Iamblichus, pretended to possess supernatural powers; so that, in some degree, he may be considered as having brought his death upon himself.— Ed.

† Suidas. verbo *Sopater*. *Photius. Bibliothec.* cod. CLI. Eunapius, *in Aedesio, Sozomen. Hist. Eccles.* lib. I. cap. V.

‡ *De Auguriis et aliis Maleficiis.—Capitul.* lib. I. cap. LXXXIII. (in 12mo. Parisiis, 1588.) See also Ducange. *Glossar.* verb. *Tempestarii—Tempestuarii.*

nuation of these evils were attributed by the multitude to the sorceries of a woman who had arrived in the country to exhibit the spectacle, a hundred times repeated, of an aerostatic ascension. This persuasion spread and acquired so much force, that the aeronaut was obliged to take precautions for her safety; or to run the risk of being burned alive by men about as enlightened as those who formerly applauded the murder of Sopater. Who, we may inquire, were these men? They were peasants in the environs of Brussels, and the inhabitants of the town itself; and the date of the event was so recent as 1828.* The same case may again occur in another century, or in three centuries hence, or as long as those who, pretending to the exclusive right of instructing the people, make them believe in magic and sorcery. Those who have accorded to the wonder-worker the power of inflicting plagues, attributed to them, with not more reason, that of being able to cure those produced by nature. In order to confirm an opinion so favourable to their credit, it is only necessary to remark, that the possessors of sacred science have disguised more than once the most simple operations under a magical veil.

They ordered, for example, the husbandman who desired that in the season his fruit trees should be laden with fruit, to cover them with a band of straw on the night celebrated by the Polytheists as the renewing of the invincible sun; and in the Christian church, as the coming of our Saviour.† The night when the sun, supposed to be enchained for ten days by the winter solstice, begins to arise again towards the equator, and on which we often

* *Le Moniteur Universel* of the 23d August, 1828.

† Fromann. *Tract. de Fascionatione.* pp. 341—342.

find cold suddenly and intensely developed. Experience has proved that this precaution will effectually protect trees from the hurtful effects of frost.

In the present day, natural physics are consulted for preservatives against hail: magic formerly was consulted for that purpose. The inhabitants of Cleone in the Argolide, imagined they could distinguish, from the appearance of the sky, the approach of frost that would endanger their crops; and immediately they endeavoured, by offering sacrifices to the Gods, to avert the evil:* other nations sang sacred hymns for this purpose.† These were only acts of piety; like the secret, taught by some theologians to avert the hail supposed to be conjured by witchcraft, which consisted in making signs of the cross, and such long continued prayers, that in the interval, the rain might have time to cease.‡

But, in ancient Greece, men pretended to obtain by enchantments‖ what elsewhere was only asked through the mercy of Heaven.§ Pausanias even declares that, he himself witnessed the successful issue of their magical

* Senec. *Quæst. Nat.* lib. IV. cap. VI.

† Carmina. *Plin. Hist. Nat.* lib. XXVIII. cap. II.

‡ Wierius. *De Præstigiis Dæmon.* lib. IV. cap. XXXII.

‖ St. Justin. *Quæst. et Respons. ad Orthodox. Quæst.* 31.

§ The inhabitants of Methana, in Argolis, when a strong south-east wind blew up the Saronic Gulph, defended themselves from it by the following spell. They took a white cock, and having cut the bird in halves, two men seized each a part, and then standing back to back, started off in opposite directions, made the tour of the vineyard, and returning whence they set out, buried the remains in the earth. After this the wind might blow as it listed, since it possessed no power to injure any man's property within the consecrated circle. *Pausan.* II. 34. 2. quoted in *St. John's History of the Customs, &c. of Greece,* vol. II. p. 339.

operations.* Until positive experience has proved the still doubtful efficacy of the paragrales,† we shall think that if the men who boasted of success of this kind have sometimes appeared to obtain it, hail would not have fallen whether they had recourse or not to magical ceremonies for conjuring it. It is not undesignedly that we place modern attempts and ancient opinions in juxtaposition. In the eighth century, they hoped to avert hail and storms by pointing long poles towards the skies. This measure reminds us of what was recently proposed, and, fifty years ago, was accredited by Berthollon, the naturalist. But, as at the end of the poles just mentioned, pieces of paper inscribed with magical characters were affixed, the custom seemed to be tainted with sorcery, and was consequently proscribed by Charlemagne.

Did the sorcerers of that age then, we may inquire,

* Pausanias. *Corinthiac.* cap. XXXIV.

† In a Report read to the Académie des Sciences, in 1826, their efficacy is represented as somewhat doubtful.—These instruments, more properly called Paragrandines, are intended to avert hail storms; and, according to Signor Antonio Perotti and Dr. Astolfi they have succeeded in averting hail as efficiently as conductors in obviating danger from lightning. Signor Perotti reports that, having fixed up several of them on a piece of land containing 16,000 perches, both his corn and his vines were protected, although fourteen hail storms had occurred in the current year, which did great mischief in the neighbouring fields; and in an official notice to the Government of Milan, by the Gonfaloniere of St. Pietro, in Casale, a very favourable account, also, is given of these protectors from hail. They are formed of metallic points and straw ropes, bound together with hempen or flaxen threads. If we admit that the ancients were acquainted with the use of lightning conductors, we may imagine that they were also aware of the value of the paragrandines, and employed them. The protection from the effects of hail of certain fields by their means, might have been readily passed off as the result of supernatural influence.—ED.

only revive the belief, and, perhaps, the practice, adopted in preceding ages? We may certainly reply in the negative. But what appears decided to us is, that processes, tending to the same ends, were very anciently described, written in hieroglyphics; and, what is still more remarkable, they gave rise to an error already exposed by us.* The ignorant man, deceived by these emblems, imagined that by imitating, well or ill, what they represented, he should obtain the effect procured by the success of the prescription which they served to disguise. We may thus explain two very ridiculous examples of Tuscan ceremonies that, according to Columella,† the husbandmen, instructed by experience, employed to appease violent winds, and calm the tempest. Gaffarel furnishes us with a third example, in a magical secret, supposed to be efficacious in averting hail.‡ It is the heighth of absurdity; yet, such is the point to which man's credulity will ever conduct him, that whenever the results of science only, without its principles are presented to him, and displayed as the effects of supernatural power, and not as the ideas acquired by the union of reason and experience, he believes and confides in the apparent miracle.

* See chap. VIII., vol. I.

† Columell. lib. x. vers. 341—345. Farther on the author mentions a plan, probably efficacious for preserving the seed in the ground from the approach of insects. It is the employment of a mixture of the juice of bitter plants with the grain together with the lees of ashes. (*Ibid.* vers. 351—356.) But directly after this, he relates a ridiculous secret for destroying caterpillars—a secret which the same author (lib. XI. *sub. finem.*) pretended was taught by Democritus, but which is probably only an hieroglyphic put into practice.

‡ Gaffarel. *Curiosités inouïes*. chap. VII. § I.

## CHAPTER VIII.

The art of drawing lightning from the clouds—Medals and traditions that indicate the existence of that art in antiquity—Disguised under the name of the worship of Jupiter Elicius and of Zeus Cataibates; it was known to Numa and many others among the Ancients—The imitators of thunder made use of it—It may be traced from Prometheus; it explains the fable of Salmonious: it was known to the Hebrews, and the construction of the Temple of Jerusalem is a proof of this—Zoroaster made use of it to light the sacred fire, and operate in the initiation of his followers: his experiments and miracles—If the Chaldeans possessed the secret, it was afterwards lost among them—There existed some traces of it in India in Ktesias' time—Wonders resembling those performed through this art, which, however, may be otherwise explained.

Of all scourges that alarm men for the preservation of their wealth and their lives, the most fearful, although perhaps the least destructive, is thunder. The fiery clouds;—the roaring wind,—the shaking earth,—the dazzling lightning,—long peals of rolling thunder; or, suddenly, a frightful crash, presaging the fall of celestial fire, redoubled in the distance by the mountain echoes; all are so conducive in producing terror, that even the frequent repetition of these phenomena does not at all familiarise

us with them, nor lessen the alarm of the multitude. Realizing every thing that a poetic imagination can picture, and the menaces threatened by the priesthood, they are the most imposing of all the signs of divine wrath, and in addition they always present to the ignorant the direct feeling, that Heaven is warring against earth.

Trembling man will supplicate the Gods, and appeal to those privileged mortals whom the Gods have deigned to instruct in order to avert from his head this instrument of terror. The miracle which he would demand has been performed by the genius of the eighteenth century;* but, we may ask, was it known to the ancients?

At first sight it seems absurd to admit such a supposition; for we are aware how little the ancients were in general acquainted with electricity. The horse of Tiberius at Rhodes, we are told, threw off sparks when strongly rubbed by the hand; and another horse is mentioned as being endowed with the same faculty. The father of Theodoric, and many others, had observed it on their own bodies:† yet these simple facts were ranked

* Admitting that the ancients were acquainted with the means of drawing lightning from the clouds, the merit of the invention of protecting our dwellings from its direful influence is not the less due to Dr. Franklin. That philosopher having demonstrated the identity of lightning and electricity, and that metals are its best conductors, recommended that pointed metallic rods should be raised some feet above the highest point of any building, and continued down into the ground, as the best mode of securing the safety of the edifice during thunder storms. The pointed rods attract the lightning, which then passes along their surfaces, and is thus carried into the earth, instead of being scattered upon the building on which they are erected.—Ed.

* Damascius in *Isidor. Vit. apud Phot. Biblioth.* cod. 242.—

among prodigies. We may also call to remembrance the superstitious terrors that were formerly awakened by the fire of Saint Elma shining on the masts of ships; and the place the apparitions of light evidently held among the histories of supernatural events: to these proofs of ignorance, we may add the absurd belief in the pretended preservatives against lightning. Tarchon, in order to guard against thunder strokes, as he terms them, surrounded his dwelling with the white bryony.* Here, however, a legitimate suspicion is aroused. Tarchon, the disciple of the mysterious Tages,—Tarchon, the founder of the Theurgism of the ancient Etruscans, might very probably have alleged the efficacy of these ridiculous means, in order to enable him more effectually to conceal the true secret that preserved his habitation and temple from lightning. A similar stratagem has perhaps been the reason why the property of averting lightning was attributed to the laurels that

" In winter, at Stockholm, the accumulation of animal electricity is quite perceptible; a great quantity is visibly discharged when people undress in a warm apartment." James's *Travels in Germany and Sweden. Nouvelles Annales des Voyages,* tome xxxv. page 13. I have often, adds our author, made the same observation at Geneva; and the Editor has done so, in this country, on drawing off silk stockings in a dark room.

* *Columell.* lib. x. vers, 346—347. In Hindostan, the property of averting thunder is attributed to certain plants; and this is the reason these plants are seen on all the houses. The White Bryony, Bryonia *Alba,* is a common weed in the hedgerows and the woods in the South of Europe as well as in Hindostan. It is a climbing plant, with five-lobed, angular, cordate leaves, with callosities on both sides. The flowers are unisexual on the same plant, and the fruit berries of a black colour in clusters. It possesses acrid and purgative properties.—Ed.

surrounded the temple of Apollo, a virtue regarded as real in spite of the evidence throughout all antiquity to the contrary; and which caused the laurel to be consecrated, until nearly our own time, in all poetical language.

The same may be alleged of the apparitions of light, of which ancient histories discourse. All cannot be false; all cannot be accidental. We can produce all these brilliant phenomena in the present day: is it wise, therefore, we may ask, to deny that other ages have possessed the power of producing them? To balance the reasons for doubting, we may oppose many other reasons in favour of the supposition. We will not argue from the numerous traditions on the art of turning away thunder. Neither will we scrutinize the origin of the religious precept, that ordered the Esthonians to close their doors and windows whenever there was a thunder storm, "for fear of allowing the evil spirit that God was then pursuing to enter."* This precept reminds us of the belief, not unfounded, that a current of air, especially humid air, will attract and conduct the thundery explosion. But what is the reason of another precept, which commanded this people to place two knives on the window-ledge, in order to dispel lightning?† Whence arose the immemorial habit in the district of Lesneven,‡ of placing a piece of iron, during a thunder storm, in the nests of hens that are sitting? Prac-

* Debray. On the Prejudices and Superstitions of the Livonians, Lethonians, and Esthonians.—*Nouvelles Annales des Voyages*, tom. XVIII. p. 123.

† Ibid. ibid.

‡ Department of Finistère.—Cambry. *Voyage dans le Département du Finistère*, tome II. pp. 16, 17.

tices of this nature, when observed in only one place, are of little importance; but when they are found in places at considerable distances from one another, and among nations who have had no communication with each other, it is almost sufficient to prove that the science that dictated them was anciently possessed by men who carried instruction among these different nations. "In the Castle of Duino (says P. Imperati, a writer of the seventeenth century), there was a very ancient custom of proving lightning. The sentinel approached an iron pike, or a bar of iron, erected upon the wall, and the moment he perceived a spark, he rang the alarm bell, to warn the shepherds to retire to their homes." In the fifteenth century, St. Bernardin, of Sienna,* reprobated, as superstitious, the precaution used in all ages of fixing a naked sword on the mast of a vessel to avert the tempest.

M. la Boëssiere, in a learned commentary, whence I have taken these two last quotations, and in which he discusses the knowledge of the ancients in the art of conjuring and dispelling lightning,† speaks of many medals that are apparently connected with his subject. One of them, described by Duchoul, represents the temple of Juno, the Goddess of the air: the roof that covers it is armed with pointed blades of swords. The other, described and engraved by Pellerin, bears as its

* St. Bernardin was born at Massa, in 1380, and died at the same place, in 1444.—Ed.

† *Notice sur les Travaux de l'Académie du Gard,* from 1812 to 1821. Nismes, 1822. First part, pp. 304—313. The Paper of M. la Boëssiere, read in 1811, was only published in 1822.

legend *Jupiter Elicius*. The God appears with lightning in his hand, while below is a man, who is directing a flying stag. But we must remark, that the authenticity of this medal is suspicious. Other medals, also, described by Duchoul in his work on the religion of the Romans, bear the inscription, *XV. Viri Sacris faciundis*, and the figure of a fish, with bristly spikes, lying on a globe or partera. M. la Boëssiere thinks that a fish, thus armed with points on a globe, was the conductor employed by Numa to attract the clouds of electric fire. And, putting together the image of that globe, with that of a head covered with bristly hairs, they afford an ingenious and plausible explanation of the singular dialogue between Numa and Jupiter, related by Valerius Antius, and ridiculed by Arnobe, without probably either of them comprehending its meaning.* The history of the knowledge possessed by Numa in natural physics merits more particular examination.†

In an age when lightning made frequent devastation, Numa, instructed, we are told, by the nymph Egeria, attempted to propitiate it (*Fulmen piare*); that is to say, setting aside the figurative style, to put in practise the means of rendering it less mischievous. He succeeded

* *Arnob.* lib. v.

† Numa was more of a philosopher than a King, and cultivated science long after he was invested with the imperial purple. Although a pagan, yet he had the wisdom to dissuade the Romans from worshipping the Deity through images, on which account no statues nor paintings of the Gods appeared in the Roman temples for upwards of 100 years. He nevertheless imposed upon their credulity, and flattered their superstitious prejudices in many respects.—Ed.

in intoxicating Faunus and Picus, whose names probably are used to designate the priests of the Etruscan Divinities, from whom he learned the secret of making Jupiter, the Thunderer, descend upon earth: and he immediately put it into execution. From this time Jupiter Elicius was worshipped in Rome.*

Here the veil of mystery is too transparent not to be seen through. To render lightning less hurtful, and to make it descend without danger from the bosom of the clouds, was, both in effect and in end, obtained by Franklin's beautiful discovery, as well as by the religious experiment repeated many times with success by Numa. Tullus Hostilius was less fortunate. "They relate," says Titus Livy,† "that this Prince, when perusing the notes left by Numa, found among them some instructions on the secret sacrifices offered to Jupiter Elicius. He attempted to repeat them; but in his preparations for, or celebration of them, he deviated from the sacred rite; and being thus exposed to the anger of Jupiter, aroused by a defective ceremony (*sollicitati prâva religione*), he was struck by lightning, and consumed in his own palace."

An ancient annalist, quoted by Pliny, explains this event much more explicitly, and justifies the liberty I have taken in deviating from the sense commonly given to the words of Livy by his translators. "Guided by Numa's books, Tullus undertook to invoke the aid of Jupiter by the same ceremonies employed by his prede-

* *Ovid. Fast.* lib. III. vers. 285—345; *Arnob.* lib. v.

† *Tit. Liv.* lib. I. cap. XXXI; Plin. *Hist. Nat.* lib, II. cap. LIII; lib. XXVIII. cap. IV.

cessor. But having performed imperfectly the prescribed ceremony (*parum rite*), he perished, struck by thunder."* Instead of the term ceremony, if we substitute the word experiment, we shall perceive that the fate of Tullus was similar to that of Professor Reichman. In 1753 this learned man was killed by lightning while repeating, with too little caution, one of Franklin's experiments.†

Pliny, in the exposition of Numa's scientific secrets makes use of expressions which seem to indicate two distinct processes: the one obtained thunder (*impetrare*), the other forced it to lightning (*cogere*); the one was, doubtless, gentle, noiseless, and exempt from any dangerous explosion; the other violent, burning, and in the form of an electric discharge. It explains the story of Porsenna destroying the terrible monster who desolated the territory of Volsinium;‡ an explanation, however, which can scarcely be received: because, although it is not absolutely impossible, yet it is very difficult and dan-

* Lucius Piso; Plin. *Hist. Nat.* lib. XXVIII. cap. II.

† He had constructed an apparatus for observing atmospheric electricity, and whilst intent upon examining the electrometer, a large ball of electric fire glanced from the conducting rod, which was insulated, to the head of the unfortunate experimentalist, and instantly deprived him of life. His companion, Sokolow, an engraver, who was present to delineate the appearances that might present themselves, was also struck down, and remained senseless for some time; the door of the room was torn from its hinges, and the door case split.—ED.

‡ Plin. *Hist. Nat.* lib. II. cap. LIII.

gerous to cause a strong electric detonation to take effect at a very distant point; and there still remains the difficulty of drawing to this exact point the being whom it was intended to overthrow by the magical commotion. We shall propose, elsewhere, another explanation of this Etruscan apparent miracle. But, in the coactive process mentioned by Pliny, and the well-known and well-attested possibility of obtaining, either from an isolated thunder rod or an immense electrical battery, a discharge of such power that the luminous flash, the noise, and the destructive influence of it completely resemble the effects of lightning, do we not perceive the secret of these imitators of thunder who so often themselves became the victims of their own success; and who, on that account, were said to have fallen under the vengeance of the God whose arms they dared to usurp?

Among these we may name Caligula, who, according to Dion Cassius and John of Antioch, opposed lightnings to lightnings, and to the voice of thunder one not less fearful; and shot a stone towards heaven at the moment the lightning fell. A machine, not very complicated, would suffice to produce those effects, so well suited to the vanity of a tyrant, ever trembling before the Gods whom he sought to equal.

It is not in times so modern that we are to look for a mysterious idea, which had already extended into all the temples.

On the contrary, we must trace it into antiquity: and we may first remark, that Sylvius Alladas (or Remulus),

eleventh King of Alba after Eneas, according to Eusebius,* imitated the noise of thunder, by making the soldiers strike their bucklers with their swords; a fable as ridiculous as that afterwards related by Eusebius of machines which the King of Alba made use of to imitate thunder. "This Prince," says Ovid, and Dionysius of Halicarnassus, "despising the Gods, had invented a method of imitating the effects of lightning and the noise of thunder, in order to pass as a Divinity in the minds of those whom he inspired with terror; but

"In imitating thunder, the thunderer perished,"†

the victim of his impiety, according to the priests of his time; according to our ideas, only of his own imprudence.

Here then we perceive that the secret of Numa and Tullus Hostilius was known a century before their time. We will not attempt to fix the epoch when it was first possessed by the Divinities, or rather by the Etruscan priests, whose successors taught it to the King of Rome, and to those from whom the King of Alba must have received it; but the tradition relative to Tarchon being acquainted with a mode of preserving his dwelling from lightning, enables us to trace it to this Theurgist, who was much anterior to the siege of Troy.

It is from these historical ages that we trace the fable of Salmonius. Salmonius, said the priests, was an

* Euseb. *Chronic. Canon.* lib. I. cap. XLV—XLVI.

† "Fulmineo periit imitator fulminis ictu." *Ovid. Metamorphos.* lib. XIV. vers. 617, 618; *Fast.* lib. IV. vers. 60; *Dionys. Halic.* lib. I. cap. XV.

impious man, blasted with lightning by the Gods for having attempted to imitate thunder. But how unlikely is their recital! What a miserable imitation of thunder would the vain noise of a chariot going over a bridge of brass appear; whilst torches, to imitate lightning, were thrown upon victims who had been condemned to death!* How was it likely that the bridge, which could only be of a moderate size, would by the noise of a chariot passing over it astonish the people of Greece?† Eustathius‡ advances a more plausible idea: he describes Salmonius as a learned man, clever in imitating lightning and the noise of thunder; and who perished the victim of his dangerous experiments. In this perfect imitation we discover the coactive process of Pliny; the art of attracting from the clouds and condensing the electric fluid when on the point of a fearful explosion.

What confirms our conjecture is, that in Elidia, the scenes of Salmonius' success,‖ and the catastrophe that put an end to his life, there may be seen, near the great altar of the temple of Olympus, another altar§ surrounded by a balustrode, and consecrated to Jupiter Cataibates (*the descending*). "This surname was given

* *Hygin.* lib. I. fab. LXI.—*Servius in Æneid.* lib. VI. verse 508.

† Virgil. *Æneid.* lib. VI. vers. 585, *et seq.*

‡ Eustath. in *Odyss.* lib. II. vers. 234.

‖ Salmonius was a King of Elis, whose ambition led him to desire that he should be thought a God; for which purpose he is said to have taken the means mentioned in the text. But the whole story is too absurd to deserve any reference being made to it.—ED.

§ Pausanias. *Eliac.* lib. I. cap. XIV.

to Jupiter to indicate that he demonstrated his presence on earth by the noise of thunder, by lightning, by meteors, or by apparitions."* In fact, many medals of the town of Cyrrhus in Syria represent Jupiter armed with lightning, with the legend *Cataibates* below him. It would be difficult to mark more strongly the connexion between this word and the descent of lightning. In the temple of Olympus also they worshipped the altar of Jupiter the Thunderer (Keraunios), raised in memory of the lightning that had destroyed the palace of Œnomaüs.† This surname and that of Cataibates present, however, different ideas to piety. It becomes difficult to avoid confusion between Jupiter Cataibates and Jupiter Elicius, that is, between the thunder that descends, and the thunder constrained to descend. It must be seen that we are obliged to reason from analogy, in defect of positive traditions; but the analogy receives great strength when we recollect that Jupiter Catabaites was worshipped in the places where Salmonius reigned, a Prince whose history closely resembles that of the two Kings who at

* *Encyclop. Méthod. Antiquités*, tome 1. art. *Cataibatès*.

† *Pausanias* loc. cit.—Œnomaus was King of Pisa, in Elis. He was informed by an oracle that he should perish by the hands of his son-in-law; to prevent which, being a skilful charioteer, he determined to give his daughter in marriage only to him who could outmatch him in driving, on condition that all who entered the lists should agree to lay down their lives if conquered. Many had suffered, when Pelops opposed him. He bribed Myrtilus, the chariot-keeper of Œnomaus, who gave his master an old chariot, which broke down in the course, and killed Œnomaus. Pelops married Hippodamia, the daughter of Œnomaus, and became King of Pisa.—Ed.

Alba and Rome fell victims to the worship of Jupiter Elicius.

It is true, that there remain no proofs of Greece having possessed, in past ages, any idea of the chemical experiment that proved fatal to Salmonius; but the worship of Jupiter Elicius existed at Rome when the mysterious process used by Numa had long ceased to be employed, and had indeed been completely forgotten. A similar forgetfulness could not hinder the worship of Jupiter Cataibates from being kept up in Elidia.

Whenever we look back into the past, we find the most certain vestiges of the existence of the knowledge of the sciences.

Servius carries us back to the infancy of the human race. "The first inhabitants of the earth," said he, "never carried fire to their altars, but by their prayers they brought down the heavenly fire."* He relates this tradition when he is commenting on a verse where Jupiter is described by Virgil as ratifying the treaty between the nations by a peal of thunder.† It would, therefore, seem that the priests regarded this miracle as a solemn proof of the guarantee given by the Gods to the covenant.‡ From whom, we may inquire, had they received the secret? "Prometheus," says Servius,‖

* Servius in *Æneid.* lib. XII. vers. 200.

† "Audiat hæc genitor qui fulmine fœdera sancit."
Virgil. *Æneid.* lib. XII. vers. 200.

‡ This use of the coactive process may explain the apparent miracle, more than once repeated by the poets, of claps of thunder being heard in calm weather.

‖ Servius in *Virgil. Eclog.* VI. ver. 42. This passage, which has been overlooked by so many modern writers, had, however,

" discovered and revealed to man the art of bringing down lightning (*eliciendorum fulminum*); and, by the process which he taught to them, they brought down fire from the region above (*supernus ignis eliciebatur*)." Among the possessors of this secret, Servius reckoned Numa and Tullus Hostilius. The former only employed the celestial fire for sacred purposes; the latter was punished for having profaned it.

The legend of the Caucasus, upon the rocks of which an expiation for the partial divulgement of an art so precious had for many centuries been pending, leads us towards Asia, over which country this art must have been diffused before it penetrated into Europe. The legend of Jupiter Cataibates has been, as we before observed, discovered on the medals of the town of Cyrrhus. Now it is hardly probable that the Greeks would have carried this worship into a distant land, the foundation of which could not have been posterior to the time of Cyrus. It is, therefore, allowable to suppose that the legend quoted was only a Greek translation of the name of the thundering God; and that the secret to which it alluded was not anciently unknown in Syria.

The Hebrews, however, appear to have been acquainted with it. Ben-David has asserted that Moses possessed some knowledge of the phenomena of electricity; and M. Hirt, a philosopher of Berlin, has brought forward very plau-

struck, more than three centuries ago, an author who is never read but for amusement, but who may be well read for instruction:— " Qu'est devenu," said Rabelais, " l'art d'évoquer des cieux la foudre et le feu céleste, jadis inventé par le sage Prométhée?"— *Rabelais*, livre v. chap. LXVII.

sible arguments in support of this opinion. Michaelis* has even gone farther. He remarks—Firstly, That there is no indication that lightning ever struck the temple of Jerusalem, during a thousand years. Secondly, That, according to Josephus,† a forest of points either of gold or gilded, and very sharp, covered the roof of the temple, in a manner similar to that of the temple of Juno as figured on the Roman medals. Thirdly, That this roof communicated with the caverns in the hill upon which the temple was situated, by means of pipes in connexion with the gilding which covered all the exterior of the building; in consequence of which the points would act as conductors. Now we can hardly suppose that they accidentally performed so important a function, or that the advantage to be derived from them had not been calculated upon. It cannot be supposed that so many points had been placed upon the temple merely for the birds to perch on; nevertheless, that is the only use assigned to them by the historian Josephus. We may, however, readily consider his ignorance as a proof of the facility with which the knowledge of important facts is forgotten.

This secret certainly does not appear to have survived the destruction of the empire of Cyrus; and yet there is much reason for thinking that so powerful an instrument for displaying apparent miracles was not unknown to Zoroaster and his successors.

Khondemir‡ relates that the devil appeared to Zoroaster in the midst of fire, and that he imprinted a

* *Magasin Scient. de Gottingen*, 3e année, 5e cahier, 1783.

† Fl. Josephus. *Bell. Jud. adv. Roman.* lib. v. cap. xiv.

‡ D'Herbelot. *Biblioth. Orientale*, art. *Zerdascht.*

luminous mark on his body: and, according to Dion Chrysostome,* when the prophet quitted the mountain where he had so long dwelt in solitude, he appeared shining with an unextinguishable light, which he had brought down from heaven; a prodigy similar to the experiment of the electric beatification, and easy to be produced in the entrance of a dark cavern. The author of the *Recognitions* (attributed to St. Clement of Alexandria,† and St. Gregory of Tours,‡) affirms that, under the name of Zoroaster, the Persians worshipped a son of Shem, who, by a magical delusion, brought down fire from heaven, or persuaded men that he possessed that miraculous power. May we not ask whether these facts do not indicate, in other terms, the experiments on atmospheric electricity of which a Thaumaturgist might so easily avail himself, as to appear sparkling with light in the eyes of a multitude struck with admiration?‖

We have in another work§ attempted to distinguish the founder of the religion of the magi from the princes and priests who, to ensure the respect of the people, had assumed, after him, the name of Zoroaster. We are

* Dion. *Chrysost. Orat. Borysthen.*

† *Recog.* lib. IV.

‡ Greg. Turon. *Hist. Franc.* lib. I. cap. V.

‖ The Editor is of opinion that the arguments of the author, on this part of his subject, are far from convincing, as they are founded altogether upon an assumption for which there is no tenable foundation. It is more probable that the accounts are wholly fabulous, and, consequently, require no comment.— Ed.

§ Eusèbe Salverte. *Essai Historique et Philosophique sur les Noms d'Hommes, de Peuples, et de Lieux.* Additional Notes B.

reminded of this distinction in relating what has been recorded respecting Zoroaster, by authors who were ignorant of this fact: for these writers would not have attributed to that prophet what belonged to his disciples, the inheritors of his miraculous science. Zoroaster, say they, perished, being burnt up by the demon whom he importuned too often to repeat his brilliant miracle. In other terms, they describe a natural philosopher who, in the frequent repetition of a dangerous experiment, ended by neglecting the necessary precautions, and fell a victim in a moment of carelessness. Suidas,* Cedrenus, and the chroniclers of Alexandria relate that Zoroaster, King of Bactria, being besieged in his capital by Ninus, prayed to the Gods to be struck by lightning; and when he saw his wish about to be accomplished, desired his disciples to preserve his ashes, as an earnest for the preservation of their power. The ashes of Zoroaster, says the author of the *Recognitions*, were collected and carried to the Persians, to be preserved and worshipped as a fire divinely sent down from heaven. There is here an evident confusion of ideas; they apply to the ashes of the prophet the worship that was never rendered by his disciples to the sacred fire, which they had received from him. Must not this confusion have arisen from the pretended origin of the sacred fire, kindled, it was said, by lightning? "The magii," says Ammianus Marcellinus,† "preserved perpetually, in

* Suidas. verbo *Zoroastres*.—Glycas. *Annal.* p. 129.

† Ammianus Marcellinus was a celebrated historian, who flourished in the reigns of Constantine, Julian, and Valens. He is supposed to be correct in his statements; and certainly he displays less of the acrimony against Christianity than is usuall

their furnaces, fire miraculously sent from heaven."* The Greeks, who bestowed on the first Persian chief the name of his country, also relate that in the time when Perseus was instructing some Persians in the mysteries of the Gorgons,† a globe of fire fell from heaven. Perseus took from it the sacred fire, which he confided to the Magii; and from this event arose the name that he imposed upon his disciples.‡ Here we recollect what was said

found in the writings of pagan historians, although he enjoyed the favour of Julian, and was a warm advocate of paganism.—Ed.

* *Ammian. Marcel.* lib. xxiii. cap. vi.

† Three fabulous sisters, Stheno, Euralye, and Medusa, the two first of whom were immortal. Their bodies were stated to be covered with impenetrable scales; their hands were of brass; their heads covered with snakes; their teeth like the tusks of the wild boar; and their eyes capable of turning to stone all on whom they were fixed. The absurd traditions respecting them are unworthy of being mentioned; but it may be necessary merely to remind the reader, that Perseus being provided with a mirror by Minerva, winged shoes by Mercury, and a helmet which rendered him invisible by Pluto, attacked these damsels;—cut off the head of Medusa, the only mortal of the three; and presented it to Minerva, who wore it on her ægis. Perseus was still more favoured; for, after this conquest, he took his flight through the air towards Ethiopia, but dropping some of the blood from Medusa's head on Lybia, the drops changed into serpents, which accounts for those that infest the Lybian deserts. Diodorus explains this fable by supposing that the Gorgons were a tribe of Amazons, which Perseus conquered in war. The Abbé Bannier supposed that the three sisters were three ships, belonging to Phareys, their supposed father, who traded with Perseus; and that these ships were laden with elephants' teeth, horns of fishes, and the eyes of hyænas; a supposition as improbable, as far as concerns the cargo of these ships, as the original tradition.—Ed.

‡ Suidas. verbo. *Perseus*.—In the *Chah-namah* of Ferdousi,

by Servius of the celestial fire which the ancient inhabitants of the earth brought down on their altars, and which they only employed for sacred purposes. The resemblance between the two traditions shows us the origin of this fire that fell from heaven at the voice of the institutor of magic; and was destined to burn for ever on the Pyres, in honour of the God who had granted it to earth.

Two of the magical oracles* which Plethon has preserved and commented on, seem to bear some connection with this subject. These oracles were attributed to the first disciples of Zoroaster, or to Zoroaster himself, which is not at all improbable, since antiquity possessed two hundred verses, the authorship of which was attributed to this prophet.† They contain the following lines:

" Oh, man! the production of Nature in her boldest mode;
If thou dost more than once invoke me, thou shalt behold alone
that which thou hast invoked:
For, neither the heaven, nor its arched concavity shall be visible
to thee:
The stars shall not shine;—the light of the moon shall be veiled;
The earth shall tremble; and lightning alone shall be presented
to thy sight. *Vers.* 39—43.

Plethon, after having observed that man is properly called the workmanship of an intrepid nature, because he undertakes the most daring deeds, adds—" The oracle speaks in the character of the God to the initiated. ' If more than once thou dost invoke me, thou wilt see every where *Me* that thou hast invoked; for thou shalt see

Hou-cheng, father of Djah-Muras, as Perseus is of Merrhus, collects also in a miraculous manner the sacred fire. *Annales des Voyages.*

* *Oracula Magica,* edente *Joanne Opsopoeo,* 1589.

† Plin. *Hist. Nat.* lib. xxx. cap. 1.

nothing but lightnings, that is fire falling throughout the universe.'"

The commentary, which informs us that the last oracle relates to the initiations, refers us, by one of its expressions, to the second oracle, whence it is borrowed.

"When thou seest the holy and sacred fire devoid of form,
Burning and flying about every where into the depths of the universe!
Listen to the voice of the Fire!"

*Vers.* 46—48.

"When thou shalt see," says Plethon, "the divine fire that cannot be represented under any form," (it is well known that the laws of Zoroaster proscribed all images) "give thanks, and full of joy listen to the voice of the Fire, which will give to thee a very true and certain *prenotion* (knowledge of the future).

Through the obscurity of the text, and its explanation, we seize upon an important feature in the Zoroastian initiations. If the initiated is fearless, he will invoke the God he worships, and will soon see the God alone. Every other object disappears; he is surrounded by meteors and lightnings, which neither can nor may be depicted by any image; and from the midst of which a loud voice is heard, that pronounces infallible oracles. From the preceding, we may conclude, with some probability, that Zoroaster had ideas upon electricity; and possessed the means of attracting lightning, which he made use of to operate the first apparent miracles destined to prove his prophetic mission; and especially to light the sacred fire, which he offered to the adoration of his disciples. Such being the case, may we not inquire whether we are correct in adding, that in his hands, and in the

hands of his disciples, the heavenly fire became an instrument for proving the courage of the initiated, for confirming their faith, and for dazzling their vision by its immense splendour, impossible to be gazed upon by mortal eyes; which is at once the attribute and the image of the divinity.

A tradition (most probably known to the reader) seems to attribute the death of Zoroaster to that want of precaution to which many other victims had fallen a prey. Another story presents in a more noble aspect the prophet, or King of Bactria, who, in order not to fall into the hands of a conqueror, decided to die, and drew down lightning upon himself; and by this last wonderful effort of his art, he gave himself an extraordinary death, worthy of the envoy of heaven, and the institutor of the fire worship.*

Thus we trace this great secret from the earliest period of history; and it perhaps existed even before it.

The Chaldeans, who aided Ninus in the war against the Bactrians, with all the power of their magic arts, must have possessed the same knowledge, relative to lightning as their rivals, although the fact is not established by any

* Zoroaster admitted no visible object of adoration except fire, which he considered the only proper emblem of the Deity. It is said, that it is difficult to ascertain who the great institutor of fire-worship was; as there were several, at least six, lawgivers of the name of Zoroaster; but this opinion has been satisfactorily refuted by Hyde[a] and by Pasteret;[b] and there is sufficient reason for believing that there was only one Zoroaster or Zerdusht, the founder of the religion of the Parsees. He was the son of humble but nobly descended parents. He was born at Urmia, a town of Azerbijan, about the year 589, B.C., in the reign of Lehrasp, the father of Darius Hystaspes, or Gushtasp. It is unnecessary to

[a] *Veterum Persarum et Magorum Religionis Hist.*

[b] *Zoroastre, Confucius et Mahomet comparés.*

historical documents. It might not be impossible for these priests to have lost it, perhaps from want of the occasion of using it; whilst it was preserved in the mountainous countries of Asia and Etruria, that were much more exposed than Babylon to the ravages of lightning. The *magical oracles*, that are attributed by Plethon to Zoroaster, or his disciples, are commented on by Psellus,

mention the prodigies that announced and appeared at the birth of this extraordinary man. His early years, nevertheless, were productive of nothing remarkable; but, at the age of twenty, he secluded himself from the society of mankind, and in his retirement conceived the idea of effecting a religious reformation, and restoring the faith of his forefathers in greater purity, and more adapted for the exigencies of his country, than he found it. The Parsee authors teach that, in this retirement, he was taken to heaven, and there received the following instructions from Ormuzd, (the Principle of Good):—"Teach the nations that my light is hidden under all that shines. Whenever you turn your face towards the light, and you follow my commands, Ahriman (the Evil Principle), will be seen to fly." He then received from Ormuzd the Zend-Avesta and the sacred fire.

Setting aside this fable, Zoroaster repaired, about the age of thirty, to the Court of Darius Hystaspes, who soon was converted to his faith, and became a zealous and efficient propagator of it. He introduced it into every part of his dominions; and had its precepts written upon parchment, which were deposited in a vault, hewn out of a rock in Persepolis, and placed under the guardianship of holy men. He commanded that the profane should not be permitted to approach the sacred volumes. Darius not only aided Zoroaster in the propagation of his faith in Iran, but his attempt to promulgate it in neighbouring states involved him in a war with Arjasp, King of Tureen. Instead of being killed by lightning, as the tradition states, the prophet is said to have been murdered during the persecution of the Fire-worshippers by Arjasp. His death took place in his 76th year, 513 B.C.

Of all the pagan faiths, that of Zoroaster, which acknowledges the Supreme Being, and a good and evil principle, is undoubtedly

under the name of the *Chaldaic oracles*,* regarding them as emanating from the Chaldean priests; and the

the most rational; and, if emblems of the Deity are admissible, the sun, or fire is the most sublime of all visible emblems.

The ancient religion of Iran, which was the same as that of Zoroaster, was established by Djamschid; and was, in truth, Fire-worship, which renders the supposition of our author respecting the knowledge of electricity by Zoroaster at least problematical; for, unless the traditional fable of his obtaining fire from heaven be admitted, we have no data for the assumption that he drew lightning from the clouds. It is more probable that the original fire of the altars was lighted by reflected mirrors, or by burning glasses, as is now done in the houses of the Parsees in India, when their fires are accidentally extinguished, or allowed to go out: in which case it may be said to be bestowed by the sun.

It is remarkable, that although the Parsees (Fire-worshippers) in India are an active, rich, and intelligent class, and follow their religious faith without hindrance, yet, in Persia, they are a degraded and oppressed race. They have no temples and no priesthood; and, according to Sir Kerr Porter, their whole worship "has sunk into nothing more than a few hasty prayers, muttered to the sun, as Supreme God: and, what they call commemorative ceremonies are now only sad confused shadows of their former religious festivals."[a]

The Parsees of India, in the emigration from the Isle of Ormuz, where they had fled from the Mohammedan persecutions, carried with them the antus-byrum, or sacred fire, which is still preserved at Oodwarra, near Nunsarree; and from it all the fires in their temples have been lighted. It is intended as a sacred and perpetual monitor to preserve their purity. The Parsees are a tall, comely, athletic, and well formed race; and much fairer than the Hindoos, and wear a peculiar cap, which distinguishes them from the Hindoos.—Ed.

* The compilation of Psellus differs from that of Plethon, in the order in which the oracles are disposed. There are also various readings, and considerable additions. Besides, the Greek verses are much more correct, which seems to indicate a less faithful translation, or one taken from an original not so ancient.

[a] Sir R. K. Porter's *Travels in Persia*, vol. II. p. 40.

explanation he gives respecting those we have quoted, is only astrological and allegorical. The sages of Babylon, and the prophet of Ariema had probably drawn from the same source. It is possible that the secret alluded to by the Oracles having been preserved for a long time by the successors of Zoroaster, traces might be found in the doctrine of the magii, from which Plethon borrowed the idea developed in his Commentary. The Chaldeans, on the contrary, would have thrown themselves into allegory, and drawn their followers with them, in desiring to solve an enigma the secret of which was lost to them, and which could alone furnish the solution.

If we turn towards Hindostan, the cradle of civilization, we find the substance, and some of the most striking expressions of the two oracles in this stanza of the Yadjour-Veda:—"There the sun shines not, neither do the moon nor the stars; the meteors do not fly about," (that is, in this place): "God overwhelms these brilliant substances with light, and the universe is dazzled by its splendour."* Zoroaster, who borrowed much

* *Recherches Asiatiques*, tome 1. pp. 575—376. The Vedas are the Scriptures, or Revelations of the Hindoos; and, like the sacred parchments of Zoroaster, they must not be read by the multitude, nor approached by the profane. They are supposed to have proceeded from the mouth of Brahma; and to be intended for the universal sacrifice. They are supposed, however, to have been scattered; but again brought together and arranged by a Sage, named Deráparáyana, or arranger, who flourished more than 5000 years ago, or in the second age of the world. He was assisted in his labour, and divided the whole of the recovered fragments of the Vedas into four parts.

I. The *Rigveda*, which contains invocations addressed to deities

from ancient India, doubtless, in this instance, might have changed the sense of the words, and applied a me-

of Fire, of the sun, the moon, the firmament, the winds, and the seasons, whose presence is invited to the sacrifices intended to supplicate their aid. Some of the *Manhras*, or hymns contained in it, display specimens of the most exalted poetry. The sun, savitri, is addressed as the light of the Divine Ruler; but in an allegorical sense as the divine light which sheds its rays over all, and emanates from the Supreme Being. One of the hymns, translated by Mr. Colebroke, contains expressions closely resembling those in the Book of Genesis, which describe the period prior to the creation of this world.—"Then there was no entity nor nonentity; no world, nor sky, nor aught above it: nothing, any where, in the happiness of any one, involving or involved; nor waters deep and dangerous. Death was not; nor then was immortality; nor distinction of day or night."[a] In another portion of the Veda, called Aitareya Brahaman's, we find this sentence:—"Originally this was indeed *soul* only, nothing else whatever existed, active or inactive." He thought, "I will create worlds." These, and similar expressions, are supposed to imply the Monotheism of the Ramadam Hindoo faith, according to which, the creation of man arose from the circumstance that every element begged from the Creator a distinct form, and the whole choose a distinct body.

II. The *Yajish*, or, *Yadjour-Veda*, which relates chiefly to oblations and sacrifices. One of the most splendid of which is "to light;" and another "to fire;" which induces the Editor to attribute the Hindoo faith to the same origin as that of Zoroaster. All the hymns in this Veda relate to sacrifices and ceremonies. It is scarcely necessary to say that many of these are of a character inconsistent with the original faith, and seem to belong to an after period; especially the bloody sacrifices to Kali; indeed, the following is one of the texts of the Veda. "O ye Gods, we slaughter no victim, we use no sacrificial stake, we worship by the repetition of sacred verses."—(*Sámaveda Sanhitá*. p. 32. v. 2).

III. *The Sámaveda* concerns the names of ancestors, and relates chiefly to a sacrifice termed Soma-Yâga, or moon-plant

[a] Colebroke's *Essays*, vol. 1. p. 43.

taphorical picture of the divine splendour to the magical ceremony of initiation. But Sir W. Jones is inclined to

sacrifice; to which the three highest classes of Brahmans only are admitted. The plant (Sarcostema *viminalis*) must be pulled up by the roots in a moonlight night, from the top of a mountain; and, at the same time, the Arani wood (Premna *Spinosa*) must be collected for kindling the sacred fire. From the juice of the Sarcostema, an intoxicating liquor, called Sama, is prepared, for the oblation, and also for the consumption of the officiating Brahmans, after the fastings, during the sacrifice, have been finished. The fire with which the altar is lighted is produced by the friction of one piece of the Arani wood upon another; and may, consequently, be regarded as being procured from the air. The following verses from one of the hymns demonstrate that this sacrifice was originally a kind of purifying sacrament, although it is now degenerated into a festival disgraced by excesses of all kinds. "That saving moon plant, by its stream of pressed sacrificial viands, makes us pure. That saving moon plant makes us pure."—(Stevenson's translation of the *Sámaveda*, part. I. *Prapathaka*, VI. *Dasiata*, II. v. 4. p. 94).

IV. The *Athar'vana* contains incantations for the destruction of enemies; and is not much reverenced by the Hindoos on that account.

The real age of the Vedas is supposed to be much less than that assigned by the Brahmans; and it probably does not extend beyond two centuries B.C. It is singular that throughout these Scriptures there is a decided allusion to the fall of man, who, although emanating from, and a part of the Deity, had lost his primœval purity; to recover which a great and universal sacrifice was required. It is impossible not to perceive in these, and in all the earliest traditions of all nations, that the primœval faith of man was the belief in one God: and that Polytheism arose out of the vices and backsliding of the human race; and it is satisfactory to trace in the Cosmogony of so ancient a faith; and in its account of the fall of man; and the consequent necessity of a propitiatory sacrifice; a confirmation, if any were required, of the truths of our own sacred volume.—ED.

think that this stanza is a modern paraphrase of some text of the ancient sacred books."*

This explains why these terms do not exactly correspond with those of the magic oracles; and may be applied in a less explicit manner to the secret of attracting lightning from the clouds. The paragraph might have been written at a period when this process had been forgotten and lost sight of; and, consequently, the proper sense of the sacred text also forgotten.

Elsewhere the following passage of the Oupnekhat, "to know fire, the sun, the moon, and lightning, is three-fourths of the science of God,"† proves that the sacred science did not neglect to study the nature of thunder; and by the possession of this knowledge the priests might indicate the means of averting it. Finally, this opinion is also strengthened by an historical fact. In the time of Ktesias, India was acquainted with the use of conductors of lightning. According to this historian,‡ iron placed at the bottom of a fountain of liquid gold (that is to say a *sheet of gold*), and made in the form of a sword, with the point upwards, possessed, as soon as it was fixed in the ground, the property of averting storms, hail, and lightning. Ktesias, who had seen the experiment tried twice, before the eyes of the King of Persia, attributed to the iron alone this quality which belonged to its form and position. Perhaps they used in preference iron, naturally alloyed with a little gold, as being less susceptible of rusting; for the same

* *Recherches Asiatiques*, tome I. p. 375.

† *Oupnek'-hat. Brahmen* XI.

‡ Ktesias in *Indic.* ap. *Photium. Bibl. Cod.* LXXII.

motive that leads the moderns to gild the points of lightning conductors. Whatever might be the intention, the principal fact remains; and it is not useless to remark that, from that time, the ancients began to perceive the intimate connection between the electric state of the atmosphere and the production not only of lightning, but also of hail and other meteors.

If the question, so often resolved, be renewed: namely, why no vestiges of a knowledge so ancient can be discovered since the time of Tullus Hostilius, more than four-and-twenty centuries ago? We reply, that it was so little diffused, that it was only by chance, and in an imperfect manner, that it was discovered even by Tullus Hostilius, when perusing the Memoirs left by Numa. Would not the dangers attached to the least error in repeating the processes in these memoirs,—dangers so often proved by fatal experience,—have been sufficient to cause the worship of Jupiter Elicius, and Jupiter Catabates, to fall into disuse through fear?

The destruction of the Persian empire by the Greeks, anterior to the nearly general massacre of the magii, after the death of Smerdis, might cause this important gap in the Occult Sciences known to the disciples of Zoroaster. In India, which has been so often the prey of the conqueror, analogous causes might exercise an influence as destructive. In all countries, indeed, over what subject more than this would the veil of religious mystery have been thrown, and greater obstacles placed in the way of ignorance, so as ultimately to plunge it into oblivion.

Other questions arise, more important and more difficult. We may ask, whether electricity, whatever were the recources whcih it afforded would be

sufficient to explain the brilliant apparent miracle of the Zoroastrian initiation? Does it sufficiently explain what Ovid describes so accurately in the worship of Jupiter Elicius by Numa, namely, the art of making the lightning, and the noise of thunder seen and heard in a clear sky?* Does it explain the terrible power of hurling lightning upon an enemy, such as attributed to Porsenna,† and which two Etruscan magicians pretended to possess in the time of Attila? Certainly not:—at least it is not within the limits of our knowledge, a limit which has, probably, not been surpassed by the ancients. To supply any deficiency, may we not suppose that, by a happy chance, the Thaumaturgists, profiting by the explosion of a luminous meteor, attributed it to the influence of their art, and led enthusiasm to look upon it as a miracle, although it was only a natural effect? May we not, for example, recollect how, according to an historian, when a miraculous rain quenched the thirst of the soldiers of Marcus-Aurelius, the Emperor, at the same time, drew down, by the influence of his prayers, lightning on the warlike machines of his enemy.‡ We may also transport the apparent miracles of one country into another; and discover at the present day,

* Ovid. *Fast.* lib. III. vers. 367—370.

† Porsenna was a King of Etruria, in whose tent, when the Etrurian army lay before the gates of Rome, Mutius Scævola put his hand into the fire, and allowed it to be burnt, without any expression of suffering, in order to convince Porsenna that it was in vain to make head against a people who could display such fortitude and daring. Porsenna was supposed to possess many magical secrets.—Ed.

‡ "Fulmen de cœlo, precibus suis, contra hostium machinamentum extorsit," Julius Capitolinus in *Marc-Aurel.*

in a place consecrated through all ages to religion, a secret equivalent to the miracle of Numa. Naptha, when dissolved in atmospheric air, produces the same results as a mixture of oxygen and hydrogen. Near Baku* is a well, the water of which is saturated with naptha; if a mantle be extended, and held above the water for some minutes, and then some lighted straw thrown into it, there is suddenly heard, says the traveller whose words I quote, "a

* The town of Baku is the capital of a territory of the same name, situated on the southern extremity of the peninsula of Abesheron, on the west side of the Caspian sea. The soil of the whole territory is saturated with Naptha; and the peninsula contains many volcanoes. Not far from Baku, a spring of white oil gushes from the cleft of a rock at the base of a hill; it is pure naptha, and readily burns in the surface of water. The inhabitants of these districts sink a hollow cane, or tube of paper, about two inches into the ground, and by blowing upon a burning coal, held near the orifice of the tube, the gas lights, but the flame does not consume the paper, nor the cane. There are many wells of the same substance; and these as well as the burning places, or Atesch-gah, as they are called, were generally shrines of grace; and many thousands of pilgrims, and fire-worshippers, resorted there to purify themselves. Notwithstanding the degradation of the Parsees when the Mahommedan religion was established in Persia, a few, as stated in the text, still find their way to the *Atesch-gah of Baku*; and spend, five, seven, or even ten years on the spot, worshipping the sacred fire; and performing prayer and penitential exercises. This sanctuary which is surrounded by four low walls, is a space about twenty feet square, and contains twenty cells, in which the priests and Ghuebres reside; and from each corner of the quadrangle arises a chimney, about twenty-five feet high, out of which a bright flame, three or four feet in height, continually issues. The penances to which these deluded creatures subject themselves are so severe, that scarcely one individual out of ten who visit the shrine, ultimately survives them.—Ed.

thundering noise, like that of a line of artillery, accompanied by a brilliant flame."* Restore to the Atesch-gah its ancient majesty; and for its little number of penitents and pilgrims, who still awakens religious associations, substitute a college of priests, clever in turning to the glory of their divinity phenomena, the causes of which are carefully concealed from the eyes of the profane, and, under the clearest skies, at their command fire and peals of thunder would issue from the wells of Baku. Let us admit that substances, which are abundant in certain countries, might have been transported by the Thaumaturgists into those countries where the action of them, being quite unknown, would appear miraculous. The Tiber might have seen, in the age when Numa invoked Jupiter Elicius, the same wonder which at the present day, is famous on the banks of the Caspian.† The ceremonies, indeed, of the same magic worship, might be enhanced by the effects of a composition of naptha; and by those of the lightning conductors and electricity elicited by the artifice of the Thaumaturgist, always careful to make the treasures of his science impenetrable, and thence more respected.

* Journey of George Keppel from India to England by Bassora, etc.; and *Nouvelles Annales des Voyages*, 2e série, tome v. page 349.

† Native Naptha is, in the present day, exported to almost every part of Europe, from the neighbourhood of the Caspian. It is a limpid, nearly colourless, volatile liquid, with a strong, peculiar odour. It is much lighter than water, having a specific gravity of 0.753; consequently it swims on that fluid, for it does not mix with it. Naptha is very inflammable, and burns with a white flame, which evolves much smoke. It is a compound of carbon and hydrogen.—Ed.

But, in spite of the principle we have hitherto followed, it is with regret we admit that it affords only a partial or local explanation, applicable to some isolated facts. We prefer general facts, such as were for so long a period concealed within the bosom of the temple. In recalling to remembrance the brilliant or destructive influence of the different inflammable compositions, the existence of which is indicated by these facts, we shall measure the extent of the resources in the power of the possessors of the sacred science, calculated to enable them to rival the fires of heaven, by the apparent miracles of terrestrial fire.

## CHAPTER IX.

Phosphorescent substances—Sudden appearance of flames—Heat developed by the slacking of lime—Substances which are kindled by contact with air and water—Pyrophorus, phosphorus, naptha, and alcoholic liquids employed in different apparent miracles—The blood of Nessus was a phosphuret of sulphur; and also the poison that Medea employed against Creusa—Greek fire—This fire, re-discovered, after many attempts—In Persia and Hindostan an unextinguishable fire was used.

NOTHING is more striking to the vulgar, than the sudden production of light, heat, and flame, without any apparent cause; or with a concurrence of causes seemingly opposed to such an effect.

Art teaches the preparation of substances, which emit light, without allowing any sensible heat to escape. The phosphorus of Bologna,* and the phosphorus of

* The Bologna phosphorus is a natural gypseous spar, or selenite, which has the property of emitting light, when it is calcined for that purpose. It is powdered after calcination, and then formed into small cakes by means of a solution of gum-tragacanth; these cakes are dried, brought to a state of ignition, and then suffered to

Baldwin,* are known to the learned, but they now only figure in books, among the amusements of physics. The ancients were acquainted with bodies endowed with a similar property. Isidore† mentions a brown stone, which became luminous when sprinkled with oil.

The Rabbins, given up to the study of the Cabbala,‡ speak of a light belonging to Saints, to the elect, upon whose countenance it shines miraculously from their birth, or when they have merited this sign of glory.‖ Arnobus,§ on the authority of Hermippus, gives to the

cool. If kept from air and moisture, they shine like a burning coal when carried into a dark place, after being exposed for a few minutes to the light. In 1602, Vincentius Casciorolus, a shoemaker of Bologna who had discovered the properties of this spar, showed it to Scipio Bezatello, an alchemist, and several learned men, under the martial name of *lapis solaris*, and as the substance called the *sol* of the alchemist, or philosopher's stone, fitted for converting the ignoble metals into gold.[a]—Ed.

* Baldwin's phosphorus is nitrate of lime which, after the water of crystallization has been evaporated, and the salt has become dry, acquires the property of emitting light in the dark.—Ed.

† *Savinius lapis, oleo addito, etiam lucere fertur, Isid. Hispal. Origin.* lib. xvi. cap. iv.

‡ The Cabbala is the work which contains the esoteric philosophy of the Jewish doctors, and which derives its name from the Hebrew word *Kibbel, to receive;* as the laws it contains were received by Moses from above.—Ed.

‖ Gaulmyn. *De vitâ et morte Mosis*, not. lib. ii. pages 233—325.

§ Arnobus lived in the reign of Dioclesian, and was converted to Christianity. In proof of his sincerity, he wrote a Treatise in which he exposed the absurdity of irreligion, and ridiculed the heathen gods.—Ed.

[a] Beckman's *Hist. of Inventions*, Tran. vol. iv. p. 423.

magician Zoroaster* a belt of fire; a suitable ornament for the institutor of the worship of fire. A philosopher of the present age would be very little embarrassed how to produce these brilliant wonders, particularly if their duration was not required to be much prolonged.

The Druids extended the resources of science much further. The renowned person, who, in the poem of Lucan, proclaims their magical power, boasts of possessing the secret of making a forest appear on fire, when it does not burn.† Ossian paints old men, mixed with the sons of Loda, and at night making conjurations round a *Cromlech*, or circle of stones; and, at their command, burning meteors arose, which terrified the warriors of Fingal; and by the light of which Ossian distinguished the chief of the enemy's warriors.‡ An English translation of Ossian observes that every bright flame, sudden, and resembling lightning, is called in Gaelic *the Druid's flame*.‖ It is to this flame that Ossian compares the sword of his son Oscar.§ Connected with the recital of the bard, this expression indicates that the Druids possessed the art of causing flames to appear, for the purpose of dismaying their enemies.¶

* *Nunc veniat quis, super* igneam zonam, *magus interiore ab orbe Zoroaster*.—Arnob. lib. I. It is without any reason that some commentators wish to read it thus: *Quin Azonaces magus, &c.*

† "Et non ardentis fulgere incendia sylvæ."—Lucan. *Phars.* lib. III. vers. 420.

‡ Ossian's Poems, &c. published by John Smith, 1780.

‖ Ibid.

§ G. Higgins. *The Celtic Druids*, p. 116.

¶ From one strophe of the *Hervorar Saga*, it may be inferred that this art was not unknown to the Scandinavian magicians. (See *Magasin Encyclop.* 1804, vol. IV. pp. 250—260.)

We may join to the traits of resemblance already observed between the Celts and the ancient inhabitants of Italy, the fable of Caeculus, the founder of the city of Preneste. Wishing to make himself known as the son of the God Vulcan, he implored the aid of his sire, when suddenly an assembled multitude, who had refused to acknowledge his brilliant origin, was enveloped in flames, and the alarm quickly subdued their incredulity.*

We may remark, that Caeculus, most probably, had chosen the place of assembly; and that the Druids only exercised their power in sacred enclosures, interdicted to the profane, as in certain optical illusions, where fire has often played a part; for these apparent miracles required a theatre suitable to those who worked them; and, in other places, in spite of the urgency of necessity, they would have experienced great difficulty in any attempt to produce them.

The instantaneous development of latent heat is not less likely to excite astonishment, particularly if water kindles the flames. Substances susceptible of evolving heat, or of taking fire, in absorbing or in decomposing water, are numerous; and they have very often occasioned fires; such as were attributed, formerly, to negligence or to malice. Stacks of damp hay, and slates of pyrites,†

* Servius in *Æneid*, lib. VII. vers. 678—681.

† Pyrites consists of a natural combination of iron and sulphur. It is frequently found in seams of coal; and when it is exposed to moisture, the sulphur and the iron aid one another in decomposing the water, and attracting its oxygen, which changes the sulphur into sulphuric acid, and the iron into an oxide; and thus forming,

moistened by a warm shower, will produce this phenomenon.*

Were the Thaumaturgists acquainted with phenomena similar to the latter? I reply, without doubt, they were. The prodigious heat, which is emitted by quick lime, sprinkled with water, could not have escaped their observation. Now, let us suppose that a sufficient quantity of quick lime is hidden at the bottom of a pit, or kiln, and that the pit is then filled with snow: the absorbed snow will disappear; and the interior temperature of the pit or kiln will be so much more raised, owing to its being thus closely shut, that less of the expanded heat will be allowed to escape; and an apparent miracle

by the union of these two, the sulphate of iron. During these natural processes the degree of heat developed is often sufficient to inflame the hydrogen, the other constituent of the water, as it escapes into the air.—Ed.

* In ricks of hay thus consumed, the combustion is the result of fermentation, a fact which was known to the ancients, for Galen informs us, that the fermenting dung of pigeons is sufficient to set fire to a house, a phenomenon which he has witnessed; and it is recorded on good authority, that the fire which consumed the great church of Pisa, was occasioned by the fermentation of the dung of the pigeons that had for centuries built their nests under its roof. Many other substances, also, cause spontaneous combustion. When recent charcoal is reduced to an impalpable powder, by rollers, it gradually absorbs air, which is consolidated, and heat is developed during the process equal to 360° of Fahrenheit, which soon causes the combustion of the charcoal. The inflammation is more active in proportion to the shortness of the interval between the production of the charcoal, and its reduction into powder; and the free admission of air is indispensable.[a]—Ed.

[a] Brewster's *Natural Magic*, p. 215.

will be proclaimed. Thus a writer of legends has ornamented the History of St. Patrick, by relating that the Apostle of Ireland lighted a kiln with snow.

Theophrastus* gives the name of *Spinon* to a stone which is met with in certain mines; and which, if pounded, and then exposed to the sun, ignites of itself; particularly if care has been taken to wet it first. The *Spinon*, there can be little doubt is merely an effloresceing pyrites. The stone named *Gagates*† (true pyritic jet) is black, porous, light, friable, and resembles burnt wood. It exhales a disagreeable odour; and when it is heated, it attracts other bodies in the same manner as amber. The smoke which it exhales in burning, relieves women attacked with hysterics; and it is kindled by means of water and extinguished when immersed in oil. This latter peculiarity was also the distinguishing feature of a stone which, according to Aelian and Dioscorides,‡ ignited in a like manner, when sprinkled with water; and, in burning, exhaled a strong bituminous smell; but, as it was extinguished by blowing above it, its combustion seems to have depended on the escape of a gaseous vapour.‖

* Theophrast. *De Lapidibus.*

† Plin. *Hist. Nat.* lib. xxxvi, cap. xix.—*Solin.* cap. xxv.—*Isid. Hispal. Origin.* lib. xvi. cap. iv.—So named from being obtained near the river Gagas, in Lycia.—Ed.

‡ Aelian. *De Nat. Animal.* lib. ix. cap. xxviii.

‖ Many instances of spontaneous combustion can be traced to the escape of carburetted and sulphuretted hydrogen gases through rents in the earth. Near the village of Bradley, in Staffordshire, an unextinguishable fire has burned for seventy years, arising from a burning stratum of coal, to which the air has free

Those three substances, whether they were the productions of art or of nature, might have sufficed to work miraculous conflagrations. But Pliny and Isidore of Seville have described a fourth, still more powerful: a black stone that is found in Persia; and which, if broken between the fingers, burns them.* This is precisely the effect produced by a bit of pyrophorus, or phosphorus stone; and this wonderful stone was probably nothing else. It is known that phosphorus melted by heat, may become black and solid;† and the word *stone*, ought not to impose more upon us here,

access from beneath it. At Bedly, also, near Glasgow, a constant stream of inflammable gas issues in the bed of a river, which is occasionally set on fire, and, in calm weather, continues burning at the surface of the water for weeks together. It consists of a mixture of two volumes of hydrogen gas, and one volume of carbon, so that it is little more than half the weight of atmospheric air.[a] The light, which has been termed the "Lantern of Maracaybo," in South America, and which is seen every night hovering over a mountainous, desert spot, on the banks of the river Catatumba,[b] near its junction with the Sulia, is another example of the escape of inflammable gas issuing from the ground, inflamed, most probably, at first by electricity. In some places these gases are applied to domestic use, as at the salt mine of Gottizabe, near Rheims in Fecklensburg.—Ed.

* "Pyrites; nigra quidam, sed attrita digitos adurit." Plin. *Hist. Nat.* lib. xxxvii. cap. 11.—"Pyrites; Persicus lapis . . . . tenentis manum, si vehementius prematur, adurit." *Isidor. Hipsal. Origin.* lib. xvi. cap. iv.

† It is not probable that it was phosphorus; but it might have been a natural pyrophorus, which took fire on the exposure of a fresh surface to the air.—Ed.

[a] *Edinb. Journal of Science*, New Series, vol. i. p. 71.

[b] *Humboldt's Personal Narrative*, vol. iv. p. 354.

than the words *lake* and *fountain* when a liquid is spoken of. Custom has consecrated in our own language, the words *infernal-stone* (*lapis infernalis*), and *cauterizing-stone*,* for a pharmaceutical preparation.

But were the ancients acquainted with phosphorus and pyrophorus? I reply in the affirmative, since they relate wonders which could have been produced by no other means than the employment of these substances; or by reactives, endowed with analogous properties. We shall have occasion to mention an ancient description of the effects of a combination of phosphorus; a description as exact as if it had been made at the present time by a modern chemist. As to pyrophorus, science possesses so many substances which ignite after some minutes' exposure to the air, that it may without improbability, be believed, that many of them were known to the ancients. Without mentioning bitumens as being highly inflammable; or petroleum, or naptha, which take fire at the approach of a lighted candle; how many of the residue of distillations kindle spontaneously in a damp atmosphere. This property, to which no attention is paid, except to explain it by a general principle, was certainly never neglected by the performers of apparent miracles, since the art of distillation formed an important part of the Sacred Sciences.

We will not then hesitate to believe, though it may well astonish us, what history relates of a vestal, threatened with the punishment reserved for those who allowed the sacred fire to go out, that she had only to spread her veil over the altar in order that the flame

* It is a preparation of pure potassa.—Ed.

should suddenly rekindle, and burn more vividly than before.* From beneath the friendly veil, we may imagine that we perceive a grain of phosphorus or of pyrophorus to fall on the hot cinders, and supply the place of the intervention of the divinity.

Nor need we longer share the incredulity of Horace, respecting the apparent miracle which was worked in the sanctuary of Gnatia;† where the incense kindled of itself in honour of the Gods.‡ We also may understand how Seleucus, sacrificing to Jupiter, saw the wood-pile upon the altar ignite spontaneously to offer a brilliant presage of his future greatness:‖ neither can we deny that the Theurgist, Maximus,§ offering incense to Hecate, might have been able to announce that the torches, which the Goddess held, would light themselves spontaneously; and that his prediction had been accomplished.¶

* *Valer. Maxim.* lib. I. cap. IV. § 8.

† A town of Apulia, about eighty miles from Brundusium.—Ed.

‡ *Horat. Serm.* lib. I. sat. v. vers. 97—190; Plin. *Hist. Nat.* lib. II. cap. VII.

‖ Pausanias. *Attic.* cap. XVI.

§ This Maximus was a cynic, and a magician of Ephesus. He instructed the Emperor Julian in magic; but refused to reside in his Court. He was appointed Pontiff in the province of Lydia. When his patron Julian went into the East, Maximus promised him success; and that his conquests should be more numerous than those of Philip. After the death of Julian, he was almost sacrificed to the fury of the soldiers, but escaped to Constantinople, where he was, soon afterwards, accused of magical practices before the Emperor Valens; and being condemned, he was beheaded at Ephesus, A.D. 366.—Ed.

¶ Eunapius in *Maxim.*

Notwithstanding the precautions which the love of mystery inspired, and which was seconded by the enthusiasm of admiration, the working of the science was sometimes openly shown in its assumed miracles. Pausanias relates what he saw in two cities of Lydia, the inhabitants of which, subjected to the yoke of the Persians, had embraced the religion of the Magi. "In a chapel," he says, "is an altar, upon which there are always *ashes, that in colour do not resemble* any others. The Magi placed some wood upon the altar, and invoked I know not what God, by orisons taken from a book, written in a barbarous language unknown to the Greeks:—the wood soon ignited of itself without fire, and the flame of it was very brilliant."*

The extraordinary colour of the cinders which were always kept upon the altar, doubtlessly concealed an inflammable composition; simply, perhaps, earth soaked in petroleum or naptha; a species of fuel still employed in Persia, in every place where these bituminous substances are common. The Magi in placing the wood, probably threw there, without its being perceived, a few grains of pyrophorus, or of that stone which was found in Persia, and which was kindled by a light pressure. Whilst the orison lasted, the action of either substance had time to develop itself.

The vine-branches which a priest placed upon an altar, near Agrigentum, lighted spontaneously in the same manner. Solinus† adds, that the flame ascended from the altar towards the assistants without incom-

* Pausanias. *Eliac.* lib. I. cap. XXVII.

† *Solin.* cap. XI.

moding them. This circumstance announces that between the vine-branches, a gas escaped, and was lighted, from below the altar, in a manner similar to that at Mount Eryx, where a perpetual flame is preserved on the altar of Venus.* The fumes of a spirituous liquor would have produced the same phenomenon. By the inflammation of an ethereal fluid, also, may be explained the power that Fromann attributes to the Zingari† of making fire appear upon a single bundle of straw placed among many others, and of extinguishing it at pleasure.‡

* Refer to chap. IV. vol. I.

† Zingari is the Italian appellation of that extraordinary race of mankind known as wanderers in almost every part of the world, but whose original home, or aboriginal region, is still a problem. In every country, although the same people, yet they have a distinct name. In England, we term them *Gypsies*, from their supposed Egyptian origin; in France, they are called *Bohemians*; in Holland, *Heydens*; in Germany, *Zigeuners*; in Spain, *Gitanos*; in Russia, *Tzengani*; and in Italy, *Zingari*; whilst the Oriental nations call them *Tschingenes*. From the time they first appeared in Europe, they pretended to possess magical science, and to have the power of looking into the future. The art of chiromancy, or telling fortunes, by the inspection of the hand, however, is not of their invention; lectures having been read in colleges upon that absurd art, long before the Gypsies appeared in Europe. With respect to their origin, the most probable opinion brings them originally from Hindostan. Their language has a close resemblance to the Hindostanee; and it is supposed that they migrated from India in the beginning of the fifteenth century, when Timur-Beg invaded that country, and endeavoured to establish in it the Mahomedan faith. Whatever may have been their origin, they are now little better than lawless wanderers, thieves, impostors, and the only pretenders to sorcery in Europe at the present time.—Ed.

‡ Fromann. *Tract. de Fascinatione*, pp. 263, and 527, 528.

In this manner school-boys amuse themselves by making alcohol burn in their hands:—a puff of breath disperses the flame at the moment when they begin to feel the heat of it.

"It has been observed," says Buffon,* "that some substances thrown up by Etna, after having been cooled during several years and then moistened with rain, have rekindled, and thrown off flames, with an explosion violent enough to produce even a slight earthquake." The composition of these volcanic productions may have been imitated by art, or the Thaumaturgist may have carefully collected and preserved those which nature had formed. One of the four stones inflammable by water, of which we have spoken, shall be explained elsewhere.

In fact we may remark, with a man whom science and his country have equally regretted†, that quick-lime mixed with sulphur, by the heat which it emits when sprinkled with water, first fuses, and then causes the combustion of the sulphur; that this mixture rapidly sets on fire mixed with sulphur and chlorate of potassa; and as suddenly ignites gunpowder and phosphorus; and that, in the latter case, there exists a physical means of fixing the precise moment, when the developed heat will cause the combustion.

Let us transport ourselves among a people whose first historical centuries, owing to the marvellous recitals with which they are filled, are thrown back into the indefinite ages of mythology.

* *Théorie de la Terre. Preuves.* § XVI.

† Cadet-Gassicourt. *De l'Extinction de la Chaux*, etc. Thesis sanctioned before the *Faculté des Sciences*. August, 1812.

The impartial reader will follow us in the march of these recitals. Let him weigh well all the expressions which Dejanira* employs for describing the first effects of the *Blood of Nessus*, a marvellous philtre, with which she impregnated the precious tunic that was to bring back the heart of her inconstant husband.† "Nessus," says she, "advised me to keep this liquid in a dark place until the moment when I wished to make use of it. This is what I have done. To-day *in the dark*, with a flock of wool dipped in this liquid, I have dyed the tunic which I have sent, after having shut it in a box, without *its having been exposed to the light.* The flock of wool, exposed to the sun upon a stone, was spontaneously consumed, without having been touched by any one. It was reduced to ashes; into powder resembling that which

* Dejanira was the daughter of Olmus, King of Ætolia. She was married to Hercules, and travelling with him, on one occasion, being stopped by the swollen waters of the Evenus, she was conveyed across the river by the Centaur Nessus, who no sooner, however, landed her on the opposite shore, than he offered violence to her person in the sight of her husband. Hercules, to revenge the insult, killed the Centaur with a poisoned arrow. Nessus, in dying, beqeathed his tunic, stained with his poisoned blood, to Dejanira, observing that it had the power of reclaiming husbands from infidelity. The lady gladly accepted and preserved the tunic; and when Hercules proved faithless to her bed, she sent it to him; and he, having put it on, was burned to death. The romance of the legend is scarcely destroyed by the explanation given by our author.—Ed.

† Sophocl. *Trachin*, act iv. sc. 1.—To be more concise, I have blended together two passages very much like each other. Seneca (*Hercules Œtacus*, act iii. sc. 1.) describes the same details, and particularly the efflorescence produced, whenever the philtre touched the earth.

the saw causes to fall from wood. I have observed that above the stone on which I had placed it, froth bubbles appeared, like those which, in Autumn, are produced from wine poured from a height."

Let a chemist read these details, stripped of all mythological recollections; what will he recognize in this pretended philtre, given by the hand of vengeance, and which, from its consistence, colour, or some other property, received the appellation of blood? I reply, a liquid preparation of phosphorus,* which, owing to the proportions of its elements, inflamed spontaneously when it was exposed to the light and heat of the sun. The phosphoric acid produced from its combustion, would produce upon the stone the effervescence, which struck the eyes of Dejanira; and also the ashes of the wool reduced to a dry and insoluble phosphate.

Hercules clothed himself with the fatal tunic; then he sacrificed twelve bulls; but scarcely had he taken the fire to the wood-pile, on which the victims were deposited, than he felt the effects of the philtre.† The vicinity of the flame, the chemist will say, and the humid heat of the skin of a man who works with strength and activity before a kindled pile will infallibly determine, though without visible inflammation, the decomposition of the phosphoret spread upon the garment. The compound being dried up and there-

* A portion of phosphorus, combined with one portion of sulphur, composes a phosphoret which remains liquid at the temperature of 10°, and is ignited at that of 25° of the centrigrade thermometer, 50° and 77° of Fahrenheit.

† Sophocl. *Trachin*, act iv. sc. 2.

fore much more caustic, would act upon all parts of the body, disorganize the skin and the flesh, and by inexpressible pains, cause the death of its unfortunate victim. Even at this day, when its nature is not unknown, it would be difficult to arrest the action once begun of these consuming substances: formerly it would have been impossible.

In discovering so perfect a uniformity between the picture painted by Sophocles and the illustrations of science, can it fairly be supposed that by chance alone the dreams, or the imaginings of a poet should coincide exactly with the operations of nature? It is more reasonable to admit that the details of these marvellous facts were preserved in the memory of men; than that the poet would digress from the received tradition, of which he knew not the origin. There can be little doubt that this origin belonged to Occult Science, to Magic studied in Thessaly, in the country of Nessus, from the time of the siege of Troy.*

Convinced that the Greek tragedian has described the effects of a secret preparation which, perhaps, in his time, still existed in the temples, I have given to the blood of Nessus the property of inflaming spontaneously in the light, although this may not have been an essential condition of the phenomenon that it produced. Every potential cautery spread in sufficient quantity upon the surface of the body will exercise the same power; will cause the same pains, and soon occasion the same impossibility of taking off the garment which

* *Plin. Hist. Nat.* lib. xxx. cap. 1.

is daubed with it, without tearing the skin and the flesh, and without redoubling instead of diminishing the sufferings of the victim, irrevocably doomed to death.*

The poison poured by Medea upon the robe which she sent to her rival, resembles, by its effects, that which Dejanira, without knowing its malignity, employed. But this myth presents, farther, an impossible circumstance. From the fillet of gold offered with the dress to the unhappy Creusa, there shot unextinguishable flames.† As it cannot be supposed that here there was an elevation of temperature, or the power of a burning sun, the spontaneous inflammation discloses the employment of naptha, which takes fire at the approach alone of a lighted body. Many authors relate that Medea really rubbed the robe and the crown destined for Creusa with naptha.‡ Procopius strengthens this tradition by twice observing that the liquor called naptha by the Medes, received from the Greeks the name of the *oil of Medea*.‖ Pliny, in fact, says that

* Towards the end of the last century, a pharcomopolist of Paris, M. Steinacher, was called into a house, under the pretext of giving relief to a sick person. Some people who pretended to condole with him, made a barbarous game of covering him with blisters, and holding him in this state during several hours. When he recovered his liberty, the most active and best directed means to relieve him were useless; he languished for some time and died in the most horrible torments; the authors of this crime remained unknown and unpunished.

† *Euripid. Medea.* act VI. sc. I.

‡ *Plutarch. Vit. Alexandr.*

‖ *Procope. Histoire mélée.* chap. XI.

Medea having rubbed the crown of her rival, whom she wished to destroy with naptha, it caught fire at the instant when the unfortunate individual approached the altar to offer a sacrifice.*

In the tragedy of Seneca, Medea, after having announced that the "golden frontlet, sent to Creusa enclosed a hidden fire, the composition of which she had learnt from Prometheus, adds that Vulcan had also given her fire, concealed under the form of a light sulphur, and that she borrowed from Phæton the flashes of an unextinguishable flame."† In withdrawing the veil from these figurative expressions, it is difficult not to perceive there a genuine Greek fire, which a grain of pyrophorus, or a little naptha, would kindle, when the fatal mixture was dispersed through the air, or by the vicinity of flame, such as that burnt upon the altar, which the wife of Jason approached.

We do not inadvertantly add the Greek fire to the number of the weapons of Medea. According to every probability, we may ask, what was the foundation of the Greek fire? I answer, naptha; the *oil of Medea*: and those *bulls* which vomited flame in order to defend the golden fleece that Medea's lover had delivered up to Jason; those bulls, the feet and the mouth of which were of brass, and which Vulcan had fabricated‡—were they

* *Plin Hist. Nat.* lib. II. cap. 105.

† "Ignis fulvo..clausus in auro..latet obscurus..quel mihi cœli..qui furta luit..viscere fœto..dedit et docuit..condere vires ..arte Prometheus..dedit et tenui..sulfure tectos..Mulciber ignes ..Et vivaces..fulgura flammæ..De cognato..Phætonte tuli.." —*Senec. Medea.* act IV. sc. 2.

‡ *Apollon. Rhod. Argonaut.* lib. III.

not machines adapted for throwing out the Greek fire?

Faithful to the method which we have followed, we shall endeavour to trace the history of this weapon, formerly so dreaded, from the earliest times when it was employed, till the latest records of it; when nothing announced that the discovery of it was still recent.

Two troubadours, one of whom flourished in the first years of the 13th century, mention the Greek fire. One of them says that it was extinguished by means of vinegar.* Joinville enters into a curious detail upon the use of this fire, which the Saracens darted forth upon the Crusaders.† The Arabs have, at all times, made a great use of inflamed darts for the attack and the defence of places; so that the Sheik of Barnou, who derived his knowledge from this people, was much astonished to learn that the English had never employed this method of destruction in war.‡

Manuel Comnenus‖ employed the Greek fire upon the

* Millot. *Histoire littéraire des Troubadours*. vol. I. page 380, tome II. pages 393—394.

† *Mémoires de Joinville*. Edition *in-folio* de 1761, p. 44.

‡ *Voyages of Denham, Oudney and Clapperton*. vol. I. pages 115 and 238.

‖ Manuel Comnenus, although the second son of John Comnenus, yet, ascended the throne after the death of his father, in 1143. His reign, of thirty years, was filled with the vicissitudes of military enterprizes against the Christians, the Saracens, and the scarcely civilized nations beyond the Danube. He believed in astrology, and the professors of that mystical art had promised him many years of glory, even when his death was approaching; but not feeling any confidence in their predictions, he requested to have the habit of a monk brought to him, and, substituting it for the royal robe, he expired.—Ed.

galleys, which he had armed to oppose Roger of Sicily; and the historian observes that he restored the use of it, after it had been given up for a *long time.** Alexis Comnenus had employed it, however, against the Pisans. Upon the prow of his vessels were *lions* of bronze, which vomited flame in every direction where it was intended to fall.† Anna Comnenus‡ speaks of fire that the soldiers, armed with tubes resembling our fusees, shot forth upon the enemy. But, according to her, they prepared their fire with a mixture of sulphur and resin reduced into powder. This account, however, is not worthy of credit; for such a composition would have melted before igniting, and would not have shot forth with an explosion.

Here, three observations present themselves: firstly, the *lions* in bronze, employed by Alexis Comnenus, recals to our remembrance the *fire-vomiting bulls* manufactured in bronze by Vulcan—they are evidently the same description of weapon; secondly, sixty years had scarcely elapsed between the maritime expedition of Alexis, and that of Manuel Comnenus: in so short a space of time had the Greek fire been almost entirely forgotten! How many other processes of Occult Science may have perished by a more prolonged disuse. Thirdly, the delu-

* "Ignis Græcus qui longo jam tempore abditus latuerat."

† *Ann. Comnen.* Hist. lib. XI. cap. IX.—Alexius Comnenus commenced his reign in 1081. His daughter Anna endeavoured to immortalize his memory in the Alexiad, or the history of his reign. If her narrative can be depended upon, it would almost induce the belief that the use of gunpowder was then understood and employed instead of the Greek fire; or that gunpowder was that fire.—ED.

‡ *Ibid.* Hist. lib. XIII. cap. IX.

sive process which Anna Comnenus gives for the composition of the Greek fire, is another proof of the care with which the ancients then concealed these processes beneath a double veil of mystery and of falsehood.

Constantine Porphyrogenetus,* indeed, recommends his son never to disclose to the barbarians the secret of the composition of the Greek fire; but to say to them that it was brought from heaven by an angel, and that it would be sacrilegious to reveal it to them.† Leon, the philosopher,‡ ordered brass tubes to be placed upon the vessels, and tubes of smaller dimensions to be put in the hands of the soldiers. Both shot forth fire upon the enemy, with a noise similar to that of thunder; but the Emperor alone directed the fabrication of that fire.

It is said that Callinicus, of Heliopolis, in Syria, invented the Greek fire in the seventh century of our era; but he only restored or divulged a process, the origin of

* He was the son of Leo, and, although clothed with the imperial purple, yet, he was of a retired habit, and dedicated much of his time to the cultivation of literature and science. He drew many learned men to his court; and himself became an author. He delineated what he regarded as a perfect image of royalty, in the life of his grandfather, Basil: he also wrote a Treatise, intended to instruct his son in the practice of government; and another entitled *Theurata*, in which a detailed account of the empire is given. Such a monarch was likely to inquire into the nature of the Greek-fire; and, knowing it, to secure its influence for his people. Water only increased its burning; it was only extinguished by stifling it under a heap of dust.—Ed.

† *Constantin, Pophyr. De administ. imper.*

‡ *Léon le philosophe. Institutions militaires.* Inst. xix. vol. ii. page 139.

which, like many others, was lost in the obscurity of initiations. The initiated, who were discovered and punished at Rome in the year 186 B.C., possessed the secret: they plunged their lighted torches into water without extinguishing them, "because," says Livy, "the composition consisted of lime and sulphur;* but they most probably added a bitumen, such as naptha or petroleum to the other ingredients."

Callinicus and the initiated must have borrowed their unextinguishable fire from some Asiatic initiation. The Persians possessed the secret, but they reserved the use of it for combats. "They composed an oil, with which they rubbed the darts which, when thrown with a moderate force, carried with them wherever they fixed themselves devouring flames,† increased and strengthened by water, and only extinguishable by dust."

Traditions almost always lead us back towards Hindostan, when we are desirous of discovering the inventors of ancient arts.

Among the numerous writers, who have transformed the history of Alexander into romance, some relate that the Macedonian, when in India, opposed to the elephants

* *Tit. Liv.* lib. XXIX. cap, XXIII.

† *Ammian. Marcell.* lib. XXIII. cap. VI, and Pliny (*Hist. Nat.* lib. II. cap. CIV.) describes the effects of a substance called *Maltha*, of which the inhabitants of Samosate made use against the soldiers of Lucullus. The *Maltha* was drawn from a neighbouring pond situated near the town. Naptha, or petroleum, doubtless formed the basis of it. Beseiged by Lucullus, the defenders of Tigranocerta shot out inflamed naptha upon their enemies. (*Dio. Cass. Xiphilin.* in *Pompeio.*)

of his enemies machines of bronze, or of iron, which vomited fire, and which secured his conquest.* Others, on the contrary, describe "the large flashes of flame that Alexander beheld as showered upon his army, on the burning plains of India."† These conflicting recitals have a common foundation, and the tradition only relates that, in India, a composition analogous to the Greek fire was employed as an engine of warfare. It was a composition similar to that which a sorcerer and a sorceress shot forth from inflamed jets, mentioned in one of the marvellous narrations of Hindoo origin. The spectators of the combat, and the combatants themselves experienced the bad effects of it.‡ Fictions of this kind generally originate in reality. The *fire which burns and crackles on the bosom of the waves*, instead of being extinguished, denotes that the Greek fire was anciently known in Hindostan, under the name of the fire of *Barrawa*.‖ It was employed against besieged towns. "On the banks of the Hyphasis, an oil was composed, and enclosed in pots of earth; and on being shot out against the wood-works, or the gates of a city, kindled with an unextinguishable flame. The fabrication of this dangerous substance was left to the King; no other person had permission to pre-

* *J. Vactrius Vit. Alexand.* (discovered and published by M. Maï.) *Biblioth. Univ. Littérature.* vol. VII. pages 225, 226.—Extract from the romance of *Alexander the Great*, from a Persian manuscript, &c.—*Bibliothèque des Romans.* October 1775, vol. I.

† This tradition given in an Apocryphal letter of *Alexander to Aristotle*, has been adopted by Dante. *Inferno.* cant. XIV.

‡ *The Arabian Nights' Entertainments*, 55th. night. vol. I. pages 320—322.

‖ *Sacountala, ou l'Anneau fatal.* act III. sc. 2.

pare even a drop of it."* This recital by Ktesias has been rejected, because what the historian adds, as to the manner of composing this unextinguishable oil, is thought improbable. He has been assured that it was drawn from a very dangerous *water serpent.* This circumstance does not appear absolutely destitute of truth. Philostratus† says that the unextinguishable oil was extracted from a *fresh water* animal, resembling a worm. In Japan, the *Inari,* an aquatic lizard, black and venemous, furnishes an oil, which is burnt in the temples.‡ Nothing interferes with the supposition that, in India the element of the unextinguishable fire, an animal grease or oil, is united to the naptha for giving more body to the incendiary projectile, and a longer duration to its action. In supposing, moreover, that Ktesias had, incorrectly translated and misunderstood the account he received; or that an erroneous account purposely had been given to him, the fact itself does not remain less probable. We again repeat, that we are too apt to accuse the recitals of the ancients of absurdity. To confirm what they had said of the Greek fire, Cardan has indicated the method of preparing fire-works endowed with similar properties.‖

* Ktesias in *Indic.*—Aelian *de Nat. Animal.* lib. v. cap. III.

† *Philostrat. Vit. Apollon.* lib. III. cap. I.—Aelian (*De Nat. Animal.* lib. v. cap. III.) quoting Ktesias, also uses the expression Σκωληξ, worm; but this worm which lives in the river Indus, is seven cubits long and of proportionate breadth. From the expression of Aelian it may be inferred, that the oil thus prepared, kindled without fire, and by the contact alone of a combustible body.

‡ Koempfer. *Histoire du Japon.* liv. III. chap. v. p. 53.

‖ H. Cardan. *De Subtilitate.* lib. II.

Prompt to refute Cardan, Scaliger,* a man more erudite than able, and more presumptuous than erudite, boldly ridiculed those who professed that they could produce physical compositions, which, exposed to the rays of the sun, or sprinkled with water, would ignite. A student of chemistry, would ridicule Scaliger for such an opinion, and work, before his eyes, the two apparent miracles which he had declared to be impossible.

* J. C. Scaliger. *Exoteric. ad. Cardan.* XIII. no. 3.

## CHAPTER X.

Compositions similar to gunpowder—Mines worked by it under Herod; by the Christian priests under the Emperor Julian at Jerusalem; and in Syria under the Caliph Motassem; and by the priests of Delphi in order to repulse the Persians and Gauls—Antiquity of the invention of Gunpowder; its probable origin in Hindostan; it has been known from time immemorial in China—Tartar army repelled by artillery—Priests of India employed the same means to hurl thunder upon their enemies—The thunder of Jupiter compared to our fire-arms—Many assumed miracles explained by the use of these arms—Gunpowder was known in the latter empire, probably until the twelfth century.

PHYSICAL phenomena, and the services that Science extracts from them, link the one to the other. The examination of the brilliant apparent miracles effected by spontaneous inflammations, leads us to a discussion of the resources that the Thaumaturgists employed in war to turn fire into an offensive or defensive weapon. From the facts which we have already quoted, we may presume that very anciently they were in possession of some inflammable composition more or less similar to gunpow-

der;* and that those tubes which threw out a brilliant fire, with a noise like that of thunder, may have been the first rough delineations of our canons and fire-arms.† We could not then have been accused of romancing, if we had said that the ancients possessed, by these means, the power of imitating the most formidable scourges; whether by shaking the earth by mines they saw it open in chasms at their enemies' feet; or by sending from afar bolts as burning, speedy, and inevitably fatal as lightning.

Herod descended into the monument of David in the hope of finding treasure there. His cupidity not being satisfied with what he had already found, he extended his researches, and caused the vaults, in which the remains of David and Solomon were laid, to be opened. A fierce flame suddenly burst out; two of the king's guards, suffocated and burnt by it, perished.‡ Michaelis attributes this prodigy to the gas, which, escaping from the vault, was kindled by the torches destined to light the workmen, who were employed in clearing an entrance.‖ But if such had been the case, these latter would have been the first victims, as the expansion of the gas must have taken place as soon as an opening had been

* Dutens, p. 194, supposes that they were actually acquainted with gunpowder.—Ed.

† Bacon is inclined to think that the Macedonians had a kind of *magic powder*, in its effects approaching to those of gunpowder. (*Encyclop. méthod. Philosophie.* vol. i. page 341. column 1.

‡ Josephus. *Ant. Jud.* lib. xvi. cap. iii.

‖ *Magasin Scientifique de Gottingue.* iii^e année. 6^e cahier, 1783.

effected in the vault. We should rather think that the priests, who had more than one motive for hating Herod, and who, looked upon the treasures enclosed in David's monument, as the property of the theocratic government, being justly indignant at the sacrilegious pillage which the Idumean Prince was committing; sought, by stimulating his cupidity, to attract him into the interior vault, where they had prepared the certain means for his destruction, if, as they expected, he should be the first to enter it.*

Michaelis† explains, in the same manner, by the inflammation of subterraneous gas, the miracle which interrupted the works ordered by the Emperor Julian for the restoration of the Temple of Jerusalem, and at which the Christians rejoiced so exceedingly, that they were suspected to have been the authors of it. This explanation seems to us even less plausible than the former. If in the globes of fire which shot out from the midst of the rubbish, wounding and putting the workmen to flight—if in the shaking of the ground, and the overthrow of several buildings, we are

* The conjecture of Michaelis is much more probable than the explanation of our author. In long shut up vaults and caverns, carburitted hydrogen gas, fire-damp as it is termed by miners, frequently forms in large quantity, and is instantly fired on coming into contact with a torch or any burning body. Now, as the torches must have been in the hands of the soldiers, not in those of the workmen who preceded them, the gas would pass uninflamed over the workmen and be ignited only when it reached those who held the torches.—Ed.

† *Magasin Scientifique de Gottingue,* loc. cit.

not to recognise the springing of a mine—we ask, what are the signs by which the springing of a mine is to be recognized?*

* This opinion, so confidently advanced by our author, is not authorized by the account of Ammianus Marcellinus, who witnessed the event, and who, being inimical to the Christians, was not likely to conceal the opinion, if it existed, that the explosions, and emissions of fire, which defeated the intention of Julian to rebuild the Jewish temple, were the result of art. The Jews, also, who were eager for the restoration of the temple, would have searched out the artifice and exposed it, had any existed: besides, had the cause, which forced Alypius to discontinue the work, been a mine which was sprung, although it might have overthrown the buildings and killed the labourers, yet, it would not have been constantly repeated in the manner described by the historian, who, indeed, evidently ascribes the event to the elements in these expressions: "hocque modo elemento obstinatius repellente.[a] And also by his statement that "the victorious elements continuing in this manner obstinately and resolutely bent in driving them (the workmen) to a distance, Alypius thought proper to abandon the enterprize." Had the materials for springing several mines been placed in a limited space, and the eruptions confined to one spot, the destruction caused by the first explosion would have rendered any after attempts to produce the same ineffective. Again, were we to admit that new explosive materials were employed in the subsequent explosions, new excavations must have been made; but any attempts to effect such a purpose could not have been carried on unknown to the Jews and the Pagans assembled on the spot; yet the eruptions were constantly renewed as soon as the labour was resumed, until they effectually constrained the abandonment of the enterprise. The Editor has no hesitation in saying, that if these explosions, and earthquakes were not a real miracle, as he firmly believes they were, there are no data, whatever, for asserting that they were produced by human art as our author would imply; and, consequently, although they

[a] *Ammianus Marcellinus*, l. XXXIII. c. I.

We may observe, that neither the Jews of Jerusalem, the Emperor Julian, nor Ammianus Marcellinus, who has transmitted the account of it to us, were converted to Christianity by this miracle.

If we consult the annals of Greece, we shall find that the priests of Apollo at Delphi, after having announced by the voice of the oracle, that their God knew well how to save his temple, did, in fact, preserve it from the invasion of the Persians, and then from that of the Gauls,

may ever remain otherwise unexplained, yet, they certainly cannot be regarded as the result of the springing of a mine. In favour of their being a real miracle, the prohibition of our Saviour, with regard to the restoration of the temple, required to be fulfilled, and it has been accomplished up to the present time; hence we see a purpose which the miracle was intended to fulfil: and, in the event, the operation of a power adequate to the effect. To borrow the language of Dr. Thomas Brown, "the possibility of the occasional direct operation of the power which formed the world, in varying the usual course of its events, it would be in the highest degree unphilosophical to deny; nor even, we presume, to estimate the degree of its probability; since, in many cases, of the wide bearings of which on human happiness we must be ignorant, it might be the result of the same benevolent motives, which we must suppose to have influenced the Divine mind, in the original act of creation itself."[a]' Such is, also, the firm belief of the Editor; and, in the events detailed, he perceives no law of nature violated; and certainly no reason to withhold our faith in the testimony of the historian of the event; on the contrary, we may rationally suppose that the statement given of it by Ammianus, was in opposition to his personal interest. The phenomena presented no violation of nature; but, as in every real miracle, it was an extraordinary event, the result of new and peculiar circumstances, and a display intended to sanction the revelations of that Being by whom the universe itself was called into existence.—Ed.

[a] *An Inquiry into the Relation of Cause and Effect*, p. 500, notes.

by the explosion of mines placed in the rocks that surrounded it. The assailants were crushed by the fall of innumerable blocks of stone, which, in the midst of devouring flames, were rained upon them by an invisible hand.*

Pausanias, who attributes the defeat of the Gauls to an earthquake and a miraculous storm, thus described their effects: "The lightning not only killed those who were struck by it, but an inflammable exhalation was communicated to those who were near, and reduced them to powder."†

The explosion, however, of many mines, as violent as we could imagine, could not have produced that total destruction of the assailants depicted by the historians. On the contrary, we hear of the same Gauls immediately afterwards making a successful incursion into Asia. They had been repulsed, not exterminated, at Delphi.

With regard to the cause assigned for their repulsion, would not the construction, it may be argued, of considerable mines, hollowed in the rocks of Delphi, have required the aid of too many co-operators for the secret to have been so long kept? To this argument it may be answered, that the more simple and toilsome details must have been confided to rude workmen, who could neither dream, guess, nor divulge the intention of them; and that these excavations were probably commenced long beforehand, as in the defensive works of modern

* *Herodot.* lib. VIII. cap. XXXVII—XXXIX; *Justin.* lib. XXIV. cap. VIII.

† Pausanias. *Phoc.* cap. XXIII.

strong places, and merely required the fulminating composition to be deposited in them when needed. Historical tradition furnishes us, however, with a more decisive answer. Every Greek, from Delphi to Thermopylæ, was initiated in the mysteries of the Temple of Delphi.* Their secresy upon every point, where silence was commanded, was guaranteed, therefore, by a fear of the evils threatened to a perjured revelation, and by a general confession required from each aspirant to this initiation; a confession which rather caused them to fear the indiscretion of the priests than to give the latter occasion to doubt theirs.

We may finally remark, that the God of Delphi, so powerful in protecting his temple from strangers, made no attempt to rescue its wealth from the hands of the Phocians. When these latter drained its resources, in order to defend their country against the hypocritical ambition of Philip, they had probably either obtained or compelled the acquiescence of the priests, and no longer feared a destructive apparent miracle, which could hardly be effected without the consent or the aid of their chiefs.

So customary is it to deem the use of gunpowder of a very modern date, that these remarkable facts have remained unnoticed, or, at least, have merely led to the supposition that ancient nations were acquainted with some composition almost as deadly.† "All that has been

* Plutarch, *De Oracul. Defect.*

† Various explosive substances are as destructive as gunpowder, and some of them might have been known to the ancients. When a solution of gold in aqua regia, is precipitated by ammonia, and the product washed and dried without heat, it becomes fulminating gold. It is exploded by the slightest friction, and even

written," says M. Napione, " by Egidio Colonna,* on instruments of war employed at the end of the thirteenth century, gives rise to a suspicion that the invention of gunpowder is of much more ancient date than we are accustomed to believe, and that this formidable composition was perhaps nothing more than a modification or perfection of the Greek fire, known many centuries before gunpowder was invented in Europe."

cannot be put into a bottle with a glass stopper without the greatest danger. It explodes with a loud noise.

When nitrate of silver is acted upon by nitric acid and alcohol at the same time, a grey powder is procured, which, being washed and dried, is fulminating silver. The explosive force of this powder is great; it detonates with a tremendous noise on being touched with a glass rod dipped in sulphuric acid.

When mercury is dissolved in nitric acid, and afterwards alcohol added, effervescence takes place, and a precipitate is thrown down, which, after being washed and dried with a very gentle heat, forms detonating mercury. It explodes with the least friction.

A mixture of chlorate of potassa and sulphur detonates with friction, and even evolves flame. The noise caused by the explosion of a few grains is equal to that of a musket.

The choride of nitrogen, which was discovered by M. Dulong, in 1812, is one of the most violent of all detonating substances. It is procured in the form of an oil, and requires the utmost caution both to make it and to preserve it. If a small globule of it be thrown into olive oil, the most violent explosion takes place, and this also happens when it is brought into contact with phosphorus, naptha, volatile oils, and many other matters.

All these compounds may have been unknown to the ancients; but they are mentioned to show the probability of our ancestors having an acquaintance with many detonating powders besides those which we possess.—Ed.

* A Roman monk, who had a share in the education of Philip-le-Bel. *Memorie della reale Academia delle Scienze di Torino*, tome xxix. *Revue Encyclopédique*, tom. xxx. p. 42.

We have established the fact, that the invention of the Greek fire belongs to a remote antiquity; and we think that Langles was right in placing that of gunpowder in an equally distant period. The following is the substance of the facts by which he supports his opinion.* The Moors in Spain made use of gunpowder at the commencement of the fourteenth century. From the year 1292, a poet of Grenada celebrated this means of destruction in his verses. There is also some reason for believing that the Arabs had made use of it against the fleet of the Crusaders in the time of St. Louis; and in 690 they employed it in the siege of Mecca. Missionaries have undeniably proved that gunpowder has been known in China from time immemorial. It was also known in Thibet and in Hindostan, where fireworks and *fire-balls* have been always used in war, and in public rejoicings. In districts of that vast country, where neither Mussulmen nor Europeans had ever penetrated, iron fusees, attached to a dart, which carried them into the enemy's ranks by the violence of the powder have been found. The laws collected in the code of the *Gentoos*, the antiquity of which is lost in the obscurity of the times, forbids the use of fire-arms (a prohibition which, no doubt, prevented them from becoming common).

These laws make a distinction between *darts of fire* and those bolts that killed a hundred men at once: the latter remind us of the effects of our own cannon. The Hindoos, though unacquainted with mortars, hollowed

* Dissertation inserted in the *Magasin Encyclopédique*, fourth year, tom. 1. pp. 333—338.

out holes in the rocks, and, filling them with powder, rained down stones upon their enemies, precisely like the hail which the priests of Delphi sent down upon the Persians and Gauls. Finally, a commentator of the *Vedas* attributes the invention of gunpowder to *Visvacarma*,* the artist God, who is said to have manufactured arrows which the Gods made use of when fighting against the evil Genii.

From this feature of the Hindoo mythology, learnt from travellers, is it not likely, we may ask, that Milton derived the idea of attributing to the rebel angels the invention of gunpowder and fire-arms? Langles has omitted to notice this resemblance; and, doubtless, the right of poets to invent, appeared to him to weaken very much the authority of their narrations. It was, nevertheless, easy for him to find in unexceptionable authorities on physical facts, the confirmation of his conjectures. He might have observed that, in China and in Hindostan, the soil is so impregnated with saltpetre, that this salt frequently effloresces on the surface of the earth: a phenomenon which must have early suggested and facilitated the confection of pyrotechnical compositions; and, at the same time, have rendered the knowledge of them common, in spite of their importance, as a part of the sacred and Occult Sciences. It is this, also, that has given to the Asiatic pyrotechnics so great a preponderance over the European, and a superiority scarcely yet controverted. Both the one and the other advantages

* If this name has, as we are tempted to believe, furnished the etymology of a French word (*vacarme*), but little known, it would be inaptly translated "burning power."

have often excited our incredulity, and prevented us from confessing, that others may be able to perform feats of which we know nothing. Fontenelle says that in China, according to the annals of that empire, "Thousands of stars are seen to fall at once from the heavens into the sea, with a great noise, or to dissolve away into rain. One star went bursting towards the east, like a *fusee*, and always with a great noise."* How came it that the ingenious philosopher did not recognise the effects of fusees and firework bombs† in this description? It was well known that the Chinese excelled in composing both; but Fontenelle preferred jesting on the pretended astronomical science of the Chinese.

With more reason has a remarkable passage from the voyages of Plancarpinus been turned into ridicule. The Tartars informed this monk that Prester-John, King of Great India, (probably a chief of Thibet, or of some nation professing the *Lamich* religion), when attacked by Tossuch, son of Tchinggis-Khan, led against his assailants figures of bronze mounted on horseback. In the interior of these figures was fire, and behind each a a man, who *threw within them something*, which immediately produced an immense smoke, and enabled the

* Fontenelle. *De la Pluralité des Mondes. Sixième soir,* (vers la fin).

† "A very brilliant meteor, as large as the moon, was seen finally splitting into sparks, and illuminating the whole valley." *Ross's Second Voyage to the North Pole,* chap. XLVIII. We might have thought that the Chinese tradition related to some fact similar to that which Ross had observed; but no European had seen such meteors in China, and every traveller boasts of the fireworks of that country.

enemies of the Tartars to massacre them.* It is difficult to believe that an intense smoke would be sufficient to put to flight the companions in arms of Tchinggis.

It is less repugnant to one's prejudices to suppose that these bronze figures might be either small swivel guns, or cannon similar to those used in China, which, by being taken to pieces, could be easily transported about on horses;† pieces of artillery, in short, that most certainly emitted something else besides smoke. Tossuch's soldiers unacquainted with these arms, and having in their flight abandoned their dead and wounded, could only tell Plancarpinus of the flames and smoke they had seen; but we can recognize the real cause of their defeat, which was neither difficult to understand nor miraculous. We know the intercourse that Thibet, and the nations following the religion of the Lamas, have always held with China. Now, a grandson of Tchinggis-Khan, in 1245, had in his army a body of Chinese matrosses; and, from the tenth century, they had in China thunder chariots (*chars à foudre*), producing, from the same causes, the same effects as our cannon.‡ Being unable to fix the period when the use of gunpowder, fire-arms, and artillery was commenced in that empire, national tradition has ascribed the invention to the first King of the country.‖ Now, as this Prince was *much versed in magic arts*,§ it

* *Voyage de Plancarpin*, art. v. p. 42.

† P. Maffei. *Hist. Indic.* lib. vi. p. 256.

‡ Abel Remusat's *Memoirs upon the Political Relations of the Kings of France to the Mongol Emperors.—Asiatic Journal*, vol. i. p. 137.

‖ P. Maffei. *Hist. Indic.* loc. cit.

§ Linschott's *Travels in China*, 3rd edit. p. 53.

was not without some reason, that we ranked the discovery, of which he has the honour, among the means employed for working apparent miracles.

These affinities strengthen, instead of affecting the opinion of Langles, which ascribed the invention of gunpowder to the Hindoos, from whom China, no doubt, received her civilization and arts, as well as her popular religion.

The Greeks were not ignorant of the formidable power of the weapons which were prepared in India by a secret process. Philostrates describes the sages who dwelt between the Hyphasis and the Ganges, as launching forth with redoubled fury lightning upon their enemies, and thus repelling the aggressions of Bacchus and the Egyptian Hercules.*

We may recal to remembrance the particular arrows with which the Gods of Hindostan armed themselves against the evil genii. In the Greek mythology, distantly, but decidedly derived from the Hindoo, the Gods are described as fighting against the rebellious Titans, and securing their victory by similar terrible arms. The numerous points of resemblance, indeed, in the details of these battles assimilate the weapons of the King of the Gods and men to modern artillery. "The Cyclops," says the historian Castor,† "assisted Jupiter against the Titans with dazzling lightnings and thunder."

* Philostrat. *vit Apollon.* lib. II. cap. XIV. lib. III. cap. III.—Themist. *Orat.* XXVII.

† Euseb. *Chronic. Canon.* lib. I. cap. XIII.—*Nota.* This important passage is only found in the Armenian version published by Zorhab and Mai.

In the war of the Gods against the giants, Vulcan, according to Apollodorus, killed Clytius,* by sending fiery stones against him. Typhon, brought forth by the earth, to avenge the giants, sent *fiery stones* flying against the heavens, whilst from his mouth issued flames of fire. "The brothers of Saturn," says Hesiod,† "freed from their bonds by Jupiter, gave to him the thunder, the dazzling lightnings, and thunder-bolt, *which had been enclosed in the centre of the earth;* and by these weapons secured to this God his empire over men and immortals."

It is from the bosom of the earth that saltpetre, sulphur, and bitumen, which most probably composed the fulminating substance of the ancients, are taken. Minerva alone, of all the divinities, knew where the thunder‡ was kept; the Cyclops alone understood the manufacture of it; and Jupiter severely punished Apollo for having attempted the life of these invaluable artists. Now, if we set aside the mythological ideas attached to these names and recitals, we shall fancy that we are reading the history of a Prince, to whom some individual, from gratitude, had imparted the secret of fabricating gunpowder, and who was as jealous of the exclusive possession of it, as the Byzantine Emperors were of reserving to themselves the secret of the Greek fire.

The resemblance between the effects of thunder and those of the inflammable compound we have noticed is so striking, that it has been recorded in all the historical and mythological narrations: nor did it escape the obser-

* Apollodor. *Bibliothec.* lib. I. cap. v.

† Hesiod. *Theogon.* vers. 502—507.

‡ Æschyl. *Eumenid.* vers. 829—831.

vation of the natives of the new continent discovered by Christopher Columbus, and conquered by Cortes and Pizarro. These unfortunate people took their conquerors for Gods, armed with thunder, until they obtained the knowledge, for which they had paid dearly, namely, the right of knowing in their persecutors only malevolent spirits and enemies to humanity.

This resemblance explains a passage which Pliny probably borrowed from some ancient poet, and which has been the torment of his commentators. In treating of the origin of magic, Pliny expresses his surprise that this art had been dispersed over Thessaly from the time of the siege of Troy, before which time Mars alone directed the thunder (*solo Marte fulminante*). Is there not a visible allusion to the power possessed by the Sacred Science; and which magic, originating in the temples, aimed at arrogating to itself the power of producing lightning, as well as that of arming itself with it in battle, and of producing explosions equalling claps of thunder.

Finally, it explains the death of Alexander's soldiers, who, having penetrated into the temple of the Cabira, near Thebes, perished there, struck by lightning and thunder :* and also the story of Porsenna† killing, with one stroke of lightning, a monster which ravaged the lands of his subjects. In addition to these, we may mention the presumption of the Estruscan magicians who, when Rome was threatened with a siege from Alaric, offered to repel the enemy, by send-

* Pausanias. *Bætic.* cap. xxv.

† Plin. *Hist. Nat.* lib. II. cap. LIII.

ing down upon him lightning and thunder; boasting that they had effected this miracle at Narnia, a town which did not in fact fall into the power of the Gothic King.*

But, it may be asked, how came an art which was known to the Christians of the fourth century; to the Etruscan magicians at the end of the fifth; and preserved until the ninth century in Syria, to fall into oblivion? And why, for instance, did the historian Ducas describe the *falconets* used against Amurat the Second, by the defenders of Belgrade,† as a novel invention, utterly unknown to his countrymen? In reply, I may inquire, how have so many other arts perished which were more widely dispersed, and more immediately useful, than those referred to? And, besides, the secret imposed by severe laws against revealing the composition of the Greek fire, may have existed as strictly with respect to other important compositions.

I may, nevertheless, venture to affirm that this art was not lost until a more recent period in the latter empire. In the fifth century, Claudian describes in verse fireworks, and particularly the *burning suns*.‡ Anthemus

* Sozomen. *Hist. Eccles.* lib. IX. cap. VI.—If we may believe Zozimus (*Hist. Rom.* lib. v.) the Bishop of Rome had consented that the magicians should attempt the fulfilment of their promises; but they were sent away, on account of the repugnance of the people to their proposal, and the town capitulated.

† Ducas. *Hist. Imp. Joann, &c.* cap. XXX.

‡ "Inque chori speciem spargentes ardua flammas
Scena rotet: varios effingat Mulciber orbes,
Per tabulas impunè vagus; pictæque citato
Ludent igne trabes; et non permissa morari,
Fida per innocuas errent incendia turres."
(Claudian. *De Mall. Theodos. consulat.* ver. 325—329.)

of Tralles, the architect, who, under Justinian, traced out the designs and directed the construction of the church of St. Sophia,* is reported to have sent lightning and thunder upon the house adjoining his own.† Another learned man points out a process for the manufacture of fire to be sent against the enemy, which reminds us of the composition of our gunpowder.‡ In short, the same composition for making it, and in the proportions used in the present day, is described by Marcus Græcus,‖ who certainly did not live later than the twelfth century, and has been thought by some to have existed before the ninth. It would, no doubt, be curious to trace out these inventions from the period when they still existed in the latter empire to that in which they became spread over Europe. One obstacle, difficult to overcome, is opposed to this investigation, namely, that ignorance which, disdaining the simple truth, and eager after the marvellous, first treated as miracles, and then rejected as fabulous, the very histories that might have instructed us.

* Procop. *De Ædific. Justiniani*, lib. I. cap. XXII.

† Agathias. *De Rebus Justiniani*, lib. V. cap. IV.

‡ *Julius Africanus*, cap. XLIV.—*Veter. Mathem.* edit. Paris, p. 303.

‖ Marcus Græcus. *Liber Ignium ad comburendos hostes*. Edition de La Porte du Theil, Paris, 1804.

## CHAPTER XI.

The Thaumaturgists might have worked pretended miracles with the air-gun, the power of steam, and the magnet—The compass was probably known to the Phocians, as well as the Phœnician navigators—The Finns have a compass of their own; and in China the compass has been used since the foundation of the empire—Other means of working pretended miracles—Galvanic phenomena—Action of vinegar upon lime—Amusements of physics—Lachryma Batavica, &c.

We approach the termination of our career. Brilliant as may have been the promises we placed in the mouth of the Thaumaturgist, we believe we have proved that it would not have been impossible for him to accomplish many of them.

The subject is not yet, however, wholly exhausted. We might draw upon the knowledge possessed by the ancients, as affording more than one means of accounting for many marvels.

In speaking of missile weapons, we have not included those set in motion by the elasticity of compressed air. Even in the present day, the display of an air-gun, sending out some deadly projectile, without noise or explo-

sion, would present a miraculous appearance to men who were indifferently educated. Philo, of Byzantium,* who must have flourished in the third century before our era, has left an exact description of the air-gun. He does not claim the invention; and no one would dare to decide how far it may or may not have been of ancient date.†

Many historians speak of poisoned needles, projected through a tube by the breath;‡ and in the abridgment of Dion Cassius,‖ we find two instances of this crime having been committed with impunity. The rapidity with which the poison of these needles acts, must in particular cases have rendered their effects more marvel-

* *Revue Encyclopédique*, tome xxiii. p. 529.—Philo was an architect and built a dock at Athens.—Ed.

† The air-gun expels the ball by the sudden expansion of strongly condensed air, in a hollow ball screwed on to the barrel of the gun, immediately under the lock. The bullet is charged with the air by means of a condensing syringe before it is screwed on the barrel. When it is to be used, the ball is introduced into the empty barrel; and the trigger being pulled, opens a valve which admits the condensed air to rush from the hollow ball, and, acting upon the bullet, to impel it to the distance of sixty or seventy yards, according to the degree of condensation of the discharged air. If the condensation be twenty times that of atmospheric air, the velocity of the bullet will be equal to one seventh of that caused by gunpowder, the elasticity of the gas formed by the inflammation of which is equal to one thousand times that of common air. No noise accompanies the expulsion of the bullet, hence the astonishment in the mind of a person wholly ignorant of the nature of the air-gun would be greatly increased.—Ed.

‡ Some of the tribes in South America, and on the coast of Africa, impel small poisoned arrows through long tubes in this manner, and thus kill their prey, or victims, at a considerable distance.—Ed.

‖ Xiphilin. in *Domitian* . . . in *Commod.*

lous. Some Frenchmen, employed in the service of Hyder Ali and Tippoo Saib, saw the prick of poisoned needles cause death in less than two minutes; neither amputation nor any other means being of the least use in preventing the fatal event. The ancients were acquainted with poisons no less rapid.* We repeat once more, therefore, what we have frequently had occasion to say; namely, that with such a secret, how easy must it have been to work apparent miracles!

The expansive power of water, when converted into steam, is an agent, by the use of which, in the present day, the aspect of the mechanical arts has been completely changed; and which, engrafting upon them an ever-increasing progress, has prepared for future generations an aid to industry, the results of which we are unable to predict. We may inquire, was this agent absolutely unknown to the ancients? Did not Aristotle and Seneca, when they attributed earthquakes to the action of water, suddenly vaporized by subterranean heat, point out a principle, the application of which alone remained to be tried? And did not Hero, of Alexandria, a hundred and twenty years before our era, demonstrate how steam might be used for giving to a hollow sphere a rotatory movement?† We shall quote, in conclusion, two remarkable facts, one of which belongs to Anthemus

* The Gauls impregnated their arrows with so powerful a poison, that the hunters made great haste to cut from the animal they had hit, that part touched by the arrow, lest the venomous substances should infect and corrupt the entire mass of the flesh.

† Arago. *Notice sur les Machines à Vapeur.—Almanach du Bureau des Longitudes*, 1829, pp. 147, 151.

of Tralles, a learned man of the latter empire, to whom we have already referred. It is related by Agathias, his contemporary, that in order to revenge himself upon the inhabitant of the house next his own, he filled several vessels with water, upon which he fixed copper tubes, very narrow at the upper end, but sufficiently large at the lower extremities to cover the vases to which they were hermetically sealed. He applied the upper openings to the rafters supporting the roof of the house, which was the object of his anger; then causing the water to boil, the steam soon rose in the tubes, expanded and affected the rafters opposing its escape with violent movement.* The coppers, it may be said, would have burst a hundred times before one rafter would have been lightly shaken. True,—but we may ask were these tubes really copper? And might not the philosopher of Tralles encourage such an erroneous opinion, in order to conceal and to preserve to himself the secret of this proceeding. Strange, therefore, as is the explanation related by the credulous Agathias, it clearly indicates that Anthemus was acquainted with the gigantic powers of steam.†

Another example conducts us to the banks of the Weser, where *Busterich* received the homage of the

* Agathias. *De Rebus Justiniani,* lib. v. cap. iv.

† The same historian had also adopted (*loc. citat.*) an erroneous explanation of the marvel quoted by us at the conclusion of the twenty-sixth chapter. According to him, Anthemus had managed it by means of burning machines, and a concave mirror, the movement of which made the dazzling reflections of the sun to fly here and there. So slight an artifice would not have persuaded a man, who was, like Anthemus' enemy, a little instructed, that they were sending the lightning against his dwelling.

Teutons. His image was of metal, and hollow; it was filled with water, and the orifices, or openings for the eyes and the mouth were closed with wooden wedges. When burning coals were placed upon its head, the steam forced out the wedges with an explosion, and escaped in torrents of vapours from within;* a most certain sign of the God's anger in the minds of his rude adorers.

If, passing from a nation a little civilized, we look into the very infancy of society, we shall observe a similarity between the miraculous image of the Teutonic God and the missile weapons used by the natives of New Guinea, the explosion of which, although they were not muskets,† was accompanied by smoke; a fact which seems to indicate their impelling power to have been analogous to steam. It would be curious to investigate this matter!

Are we also certain that we know how far the ancient Thaumaturgists made use of the magnet? Its attractive property was so far understood by them, that it was employed, it is said, for suspending a statue from the vault of a temple.‡ This tradition, whether true or false, shows that the ancients may probably have taken advantage of magnetic attraction in working pretended miracles.

* *Tollii Epistolæ Itinerariæ*, pp. 34—35.

† *Nouvelles Annales des Voyages*. tome I. p. 73.

‡ Vitruvius (*de Archit*. lib.IV.) and Pliny (*Hist. Nat*. lib. XXIV.) says that this marvel was projected but not executed. Suidas, Cassiodorus, Isidorus of Seville, and Ausonius speak positively of its existence. According to Ausonius (*Eidyllium* X. *Mosella*, vers. 314—320.) Dinochares by this means elevated to the vault of the temple, the image of Arsinoe, the wife and sister of Ptolemy Philadelphus: an iron hidden from sight by the hair of the statue

The attractive power of the magnet was not unknown to the ancients; but, following the custom adopted for increasing the veil of mystery, they affirmed, and attempted to make it generally believed, that this property belonged to one species of magnet only, namely, that of Ethiopia.* We are well aware, in the present day, of the effects displayed by magnetic attraction and repulsion in the exhibitions of experimental philosophy; and let us remember that, in the temples, such performances would have been looked upon as miracles.

Modern Europe claims the discovery of the principle

being attached to a magnet in the summit of the vault. Suidas (verbo Μάγνης) speaks of a statue of Serapis which he says was of brass (probably plate copper), and supported by the same artifice. Cassiodorus (*Variar.* lib. I. page 45) and Isidorus (*Origen.* lib. XVI. cap. 4.) says, that suspended to the vault of one of the temples of Diana, was an iron statue (doubtless of very thin iron plate) which, according to the first of these writers was a statue of Cupid. Isidorus says that it was held there by the power of the magnet, a particular and important feature in the narrative which Cassiodorus passed over in silence. Vitruvius and Pliny being more ancient may have been better informed than the writers of the latter empire: but in order to show that these may not have sinned against probability, it will be only sufficient to state that the statue may have been hollow and light, and the magnet very strong.

The fable which is extensively known touching the coffin of Mahomet, which is said to be suspended to the vault of a mosque, furnishes an example of the inclination which men have of naturalizing among themselves wonders borrowed from a foreign country and religion; nevertheless a gross counterfeit does not destroy the possibility of a fact, however much it may bear the appearance of improbability.

* *Isid. Hispal. Origin.* lib. XVI. cap. IV.

that regulates the compass;* but this pretension may be contested. A remarkable passage in the Odyssy has inspired an English scholar with a very ingenious conjecture on this point. Alcinous† tells Ulysses that the Phocian vessels are regulated and guided by a spirit. Unlike common boats, they require, says he, no helmsman or pilot; and, in spite of the profound darkness of the night, and the haze, they traverse the ocean with the greatest rapidity, running no risk of being wrecked. Mr. William Cook‡ explains this passage, by supposing that the Phocians understood the use of the compass, and that they had learnt it from the Phœnicians.

Upon this conjecture we shall offer some observations:

Firstly.—His author might rely upon what Homer several times‖ says of the swift sailing of the Phocian

* For the sake of some of our readers, it may be necessary to state that the compass consists of a flat bar of steel, which being repeatedly rubbed with a magnet, and fixed upon a delicate pivot, takes a direction nearly corresponding to the meridian. When used for marine purposes, the needle is placed on a steel pivot, which works in an agate socket let into the centre of the magnetized bar. A circular card is divided into thirty-two parts, or points, and these subdivided, so as to form three hundred and sixty points at the circumference. It is attached to the needle with its point to the north pole, marked usually by a kind of *fleur-de-lis*. The whole apparatus is fixed in a circular box, in such a manner that the card and needle are always level, and move freely, and yet so as not to be deranged by sudden concussions. As far as regards Europe, the compass was first used at sea by Sig. B. Givaia, of Naples, in the thirteenth century.—Ed.

† Homer. *Odyss.* lib. viii. vers. 553—563.

‡ William Cooke. *An Inquiry into the Patriarchal and Druidical Religion, &c.*, in 4to. London, 1754, p. 22.

‖ Homer. *Odyss.* lib. vii. lib. viii. lib. xiii.

vessels. Directed at large by the compass, their speed must, in fact, have appeared prodigious to navigators accustomed and forced to coast, from the fear of losing sight of land for too long a period.

Secondly.—The figurative style characterising the passage quoted, belongs to a secret which the poet knew only by its results. Homer thus transforms a natural fact into a miracle; and when he relates that Neptune, unwilling that the Phocians should save more strangers from the perils of the sea, had changed into a rock the vessel which brought back Ulysses to his country, adopts this opinion, the origin of which we have already pointed out,* in order to explain that the art which had rendered navigation so secure was lost from among the subjects of Alcinous.

Thirdly.—That the Phœnicians should have understood the use of the compass it is not difficult to believe, particularly when we remember the frequent voyages their navigators made to the British isles: but there is nothing to prove that they communicated this secret to the inhabitants of Corcyra. Homer, who is so exact in collecting all traditions relative to the communication between the ancient Greeks and the East, is silent upon this point. But he informs us that the Phocians dwelt for a long time near the Cyclops, and had but recently separated from them; and, at the same time, he terms the Cyclops *very ingenious men*:† an appropriate expression when applied to artists learned in the docimasic and pyrotechnic arts, and who, for more than thirty cen-

* Refer to chap. III. vol. I.

† Homer. *Odyss.* lib. VII. ver. 4—8.

turies, have left their names on the gigantic monuments of architecture in Italy, Greece, and Asia. We have elsewhere established,* and, perhaps, with some probability, that the Cyclops, like the Curetes, belonged to a learned tribe, who had come from Asia to civilize and govern some of the Pelasgian nations of Greece. It is not surprising that the Phocians should have profited by the instructions of this caste, before becoming so tired of its despotism as to have separated from it for ever. We can even discern why their good fortune or skill in their voyages ceased soon after this separation. The father of Alcinous had decided upon it; and under the reign of Alcinous, the Phocians renounced navigation. Might it not have been because the instruments obtained from the liberality of their ancient masters had been destroyed; and that they were ignorant how to re-construct others?

It remains only to prove that the Cyclops did possess so valuable a knowledge; a proof which is nearly impossible.

We only know that they came from Lycia† into Asia; but they might have only crossed Lycia, and have come from some more interior country of Asia, like the hyperborean Olen, when, with hymns and a religious faith, he brought the elements of civilization into Greece.

It was from the extremities of Asia also that there came into Greece and Italy that northern or Scythian Abaris, said to be endowed by the God he worshipped with an arrow, by the assistance of which he could overrun the universe.

* Historical and Philosophical Essay upon the Names of Men, Nations, and Places, § 81. vol. II. pages 161—172.

† Lycia was a Pelasgian settlement.—Ed.

It has been poetically said, and repeated by Suidas and Iamblichus, that, by the virtue of this precious gift, Abaris *traversed the winds.** This expression has been taken in its strictest sense; but Iamblichus adds immediately afterwards, that "Pythagoras deprived Abaris of *the golden arrow with which he steered his course* (*qua se gubernabat*); that, having thus robbed him, and having hidden the arrow, without which he was unable to discover the track he should follow, Pythagoras compelled him to explain its nature.† If instead of the pretended arrow, we substitute a magnetic needle of the same form and large dimensions, gilded to preserve it from rust, instead of an absurd fable, we shall have in the narration of Iamblichus a real fact, related by a man who had not penetrated its scientific mystery.

All this, nevertheless, offers us only conjectures more or less probable. Let us quote a fact. The Finns possess a compass which could not possibly have been given to them by Europeans, and the use of which among them can be traced to ages unknown. It presents this peculiarity;—it describes the rising and setting of the sun in summer and winter, in a manner that could only agree with the latitude of $49^0$ $20'$.‡ This latitude crosses in Asia the whole of Tartary, the Scythia of the ancients. It is that under which Bailly was led to place the nation, which might be called "inventors of the sciences;"‖ and

* Suidas. verbo *Albaris*.—Iamblich. *vit. Pythagar.* cap. XXVIII. See also *Herodot.* lib. IV. § 36.—*Diod. Sic.* lib. III. cap. XI.

† *Iamblich.* loc. cit.

‡ *Nouvelles Annales des Voyages,* tom. XVII. p. 414.

‖ Bailly. *Lettres sur l'Origine des Sciences.—Lettres sur l'Atlantide.*

that, too, in which, as Volney* has remarked, the *Boundehesch*, or fundamental book of the religion of Zoroaster, was written. If we follow it, we are conducted in the East to that portion of Tartary, the population of which, sometimes conquerors—sometimes subjects, were yet intimately connected with the Chinese empire. Now, the ancient existence of the compass in China has been denied by no one ;† and we cannot regard as false the tradition,‡ according to which a Chinese hero, a long time before our era, successfully made use of the magnet to guide his march in the midst of darkness.

As the compass was known at the same time among the Chinese and the Finns, it is but natural to recollect that the use of family names, unknown in Europe for so long a period, but existing from antiquity in China, seems to have passed from the latter country to the Samoyedes, the Bashkirs, and the Laplanders.‖ This extension in the dark ages of so useful and popular an institution, points out

* Volney. *Œuvres Complètes*, tome iv, pp. 202—203.

† The Chinese trace the use of the compass among themselves to the reign of Hoang-ti 2600 years before the year of our Lord. There is mention made of magnetic chariots or bearers of compasses, in the historical Memoirs of Szu-ma-thsian, 1110 years before our era. J. Klaproth. *Letter upon the Origin of the Compass.—Bulletin of the Geographical Society*, second series, vol. ii. p. 221.

‡ Abel Remusat. *Memoirs upon the Political Relations between the Kings of France and the Mongol Emperors.—Asiatic Journal*, vol. i. p. 137.—The Hindoos made use of the compass, and there is nothing to prove that they received it from the Europeans.

‖ Eusèbe Salverte. *Essai Historique et Philosophique sur les Noms d'Hommes, de Peuples et de Lieux*, § 21, tom. pp. 35—44.

to us the route which the disciples of the learned caste, the possessors of a secret capable of displaying miracles apparent, useful and brilliant, might possibly have taken in emigrating westward. It renders probable an opinion, which at first might seem chimerical, that the knowledge of the magnet came from the latitude beneath which the religion of Zoroaster sprung,* into those western countries of Asia Minor where this religion was already established, and where it had naturalized the practice of working apparent miracles peculiar to the worshippers of fire.†

* Isidore de Seville. (*Origin.* lib. XVI. cap. IV.) says that the magnet was first found in India, and consequently received the name of *Lapis Indicus;* but this isolated and vague fact does not seem a sufficient reason for us to seek for the origin of the compass in Hindostan.

† The idea suggested by the author, that the knowledge of the magnet, consequently of the compass came from the East is ingenious, and most probably correct. Both, assuredly were known in China, Japan, and India, from a period of high antiquity, although they were unknown to European nations until the twelfth century. It does not, however, appear that, although the Chinese had long before employed the compass on land, it was not used by them for maritime purposes until the dynasty of Tsin, which existed in A.D. 419; at least there is no direct proof that such was the case. It is stated in the great dictionary, Poi-wen-yeu-fou, that "there were then ships directed to the south by the needle." That it was generally known as a guide at sea, to the Asiatic nations, may be inferred from the following passage contained in a M.S. written in 1242, by Baiiak Kibdjaki, and quoted in the *Penny Cyclopædia,* (art. *History of the Compass.*) "The captains who navigate the Syrian sea, when the night is so dark as to conceal from view the stars which might direct their course according to the position of the four Cardinal points, take a basin full of water, which they shelter from the wind by placing it in the

We must hasten to add, in order to forestal objections, in which a natural partiality would be mingled with a

interior of the vessel ; they then drive a needle into a wooden peg or a corn-stalk, so as to form the shape of a cross, and throw it into the basin of water on the surface of which it floats. They afterwards take a loadstone of sufficient size to fill the palm of the hand, or even smaller, bring it to the surface of the water, give to their hands a rotatory motion towards the right, so that the needle turns on the surface of the water: they then suddenly withdraw this hand and the magnet, when the two points of the needle face north and south. They gave me ocular demonstration of this process during our voyage from Syria to Alexandria in the year 640 (of the Hegira.)" The use made of it on land by the Chinese, formerly referred to is founded on the following story, connected with the history of a Chinese hero named Tehi-yeou, the truth of which is admitted to be undoubted.

"Tehi-yeou bore the name of Kiann; he was related to the Emperors Yan-ti. He delighted in war and turmoil. He made swords, lances, and large cross-bows to oppress and devastate the empire. He called and brought together the chiefs of provinces; his grasping disposition and avarice exceeded all bounds. Yan-ti-wang, unable any longer to keep him in check, ordered him to withdraw himself to Chae-hao, in order that he might detain him in the west. Tchi-yeou, nevertheless, persisted more and more in his perverse conduct. He crossed the river Yang-choui, ascended the Kieounae, and gave battle to the Emperor Yang-ti at Khoung-sang. Yan-ti was Hinan-yuan, the proper name of the Emperor. Houang-ti then collected the forces of the vassals of the empire, and attacked Tehi-yeou in the plains of Tehou-lou. The latter raised a thick fog, in order, that by means of the darkness, he might spread confusion in the enemy's army. But Hinan-yuan constructed a chariot *for indicating the south, in order to distinguish the four cardinal points,* by means of which he pursued Tehi-yeou and took him prisoner."[a] It appears also that the Chinese used

[a] Davies' *Early History of the Mariner's Compass.—British Annual,* 1837.

just love of truth, that the existence of particular knowledge in antiquity, and among nations long unknown to us, does not prove that the Europeans did not in modern times really invent the arts and sciences, the discovery of which they claim, and which they have undoubtedly re-discovered. The art of typography is as ancient in Thibet and China as the histories of these countries; but it is less than four centuries ago since Faust, Schöeffer, and Guttenberg enriched European civilization with it. It is sixteen or seventeen lustres since the progress of science has enabled us to recognise in the narrations of antiquity the art of conducting lightning, re-discovered by Franklin. The learned, perplexed in determining the precise period of the re-invention of the compass and of gunpowder, have no less difficulty in stating that the use of either has been known over Europe for not more than five or six hundred years. The secrets of Thaumaturgy must have been very numerous, since the learned caste studied the physical sciences only with the view of finding in them, almost with every new discovery, a fresh means of astonishing, alarming, and governing the multitude. If, then, many of these secrets have irrecoverably perished with the priests and the temples, there may be others, the memory of which, entombed in some ancient documents, beneath

the compass for maritime purposes in the third century of the Christian era; it was also, as stated above, employed on the coast of Syria, before it came into general use in Europe; and although the Syrian compass was of a very rude construction, yet, it was sufficient for navigating their vessels at night: Vasco de Gama, when he doubled the Cape of Good Hope, found the Indian pilots expert in the use of the compass.—Ed.

a fabulous covering will some day emerge from their graves, awakened by fortunate events, in effecting the disinterment of which, without doing less honour to the human mind, their authors will nevertheless be but re-inventors.

We might proffer some specimens of this kind. Chance revealed to Cotugno the first phenomena of galvanism, as accident also afterwards revealed them to Galvani, who has merited the title of the discoverer, from having brought to perfection, by reasoning and investigation, a knowledge at first fortuitous. If chance had enriched some ancient Thaumaturgist with the same discovery, with what apparent miracles would he not have electrified his admirers, even although he had merely limited himself to the first principles of galvanism, and to the experiments, which they might place in his power upon the bodies of animals recently deprived of life.* Even

* Galvanism is a modification of electricity, which is capable of producing on bodies effects not usually obtained from ordinary electrical excitation. The first display of its power was noticed by Subzer, a German, who found that when a disc of lead is placed under the tongue, and one of silver over the tongue, and the edges of both metals are brought into contact, a peculiar taste is perceived :[a] but he pursued the inquiry no farther. Other fortuitous incidents afterwards might have led to the discovery, but, for the reason stated in the text, Galvani, Professor of Anatomy at Bologna, is justly regarded as its discoverer. It is unnecessary, here, to enter upon the general phenomena produced, both on organic and inorganic matter, by galvanism: but in order to demonstrate how it might be employed to excite astonishment and even terror; and, consequently become an instrument of power over the ignorant and the superstitious, in periods of less general intellectual cultivation than

[a] *Théorie des Plaisirs*, p. 115.

in the eighteenth century we have witnessed men who pretended from some internal feeling, or by the aid of a divining rod, to discover the springs concealed in the earth at depths more or less considerable.* Edrisi relates that a caravan traversing Northern Africa was

the present, I will only mention a few of its physiological effects. If a piece of tin-foil, attached to the extremity of a wire connected with one pole of a galvanic pile be placed on the tongue, and the bent extremity of another wire from the opposite pole be pressed upon the inner corner of the eye, a flash of light, and a sensation of a blow on the eye will be immediately perceived by the person thus treated. When a current of galvanism is passed along a nerve to any muscles of voluntary motion, these muscles are thrown into convulsive contraction, even if the animal has been dead for a short time, as long as the muscles retain their irritability. Aldini operated on the body of a criminal executed at Newgate, the convulsive movements were such as might have excited a belief that the dead man was restored to the power of sensation; and, from the terrific expressions of human passion and agony, that he was enduring the most intense suffering. I may again repeat—what extent of power would such experiments have, placed in the hands of those who aimed to deceive the credulous into the conviction that the whole was the result of supernatural agency; a deception easily effected were the instrument concealed, and the wires only brought into view.—Ed.

* The divining rod is a forked branch of hazel, or even any tree, which, if carried slowly along, loosely suspended in the hand, is said to dip towards the ground when brought over the spot where a mine or a spring is situated. Compared with other divinations, this rod is of recent introduction, and demonstrates that superstitious credence, and impudent imposture, are not confined to any age; and humanity is humbled in beholding men with considerable pretensions to science believers in the powers ascribed to the divining rod. Thevenot published a Memoir on the relation of the phenomena of this rod to those of electricity and magnetism; and Pryce, our countryman, in his work entitled

nearly perishing from thirst upon a barren and sandy soil, when one of the travellers, a black Berberi man, taking a little of the earth up and smelling it, pointed out a spot where they might dig and find a spring of water.* His prediction was instantly verified. Place a charlatan in such a situation, he would pride himself upon having performed a miracle, and the gratitude of his companions in danger would support his pretensions.

In the month of August, 1808, an egg was found upon the altar of the Patriarchal Church at Lisbon, bearing upon its shell the sentence of death of all the French, although there did not appear to be traces of the writing being the production of the hand of man. This apparent miracle caused much anxious excitement among the Portuguese, until the French distributed throughout the town, and had placed in all the churches, an immense number of eggs, upon the shells of which the contradiction of this lie was written; at the same time proclamations were everywhere posted up, explaining the secret of the supposed miracle, which consisted in writing upon the shell, when covered with an oily substance, and then plunging and retaining the egg for some time in an acid.†

By the same method, letters or hieroglyphics can be engraved, either grooved or in relief, upon a table of

*Mineralogia Cambriensis*, published in 1778, has collected accounts of many successful experiments which he affirms were performed by it.—Ed.

* *Edrisi.* (*traduction française*), lib. I. chap. XXII.

† P. Thiebault. *Relation de l'Expédition de Portugal*, pp. 170—171.

calcareous stone, leaving behind no traces of a mortal hand. Now, the ancients were acquainted with the strong action of vinegar upon such stones, although they have somewhat exaggerated it, by adopting the story which they have recorded in history of the passage of the Alps by Hannibal.*

The area of the base of a vessel compared with its height, whatever may be its form, is the measure of the pressure of the liquid it contains. This principle, which explains the powerful action of the hydrostatic press, may possibly have been known in the ancient temples; and how easy would it not have rendered the execution of many apparent miracles? Indeed, is it not very closely resembling a miracle, when the effect produced appears so greatly disproportioned to its actual cause? What more wonderful than the enormous pressure which the small quantity of liquid necessary to produce it causes?†

Let us descend, however, to the amusements of experimental philosophy. Let us suppose that the ancient Thaumaturgists were acquainted with inventions, the

* Plin. *Hist. Nat.* lib. xxxiii. cap. i. and ii.—*Dion. Cass.* lib. xxxvii. cap. viii.—Might not the story this refers to have its origin in some manœuvre employed by Hannibal to restore to his troops that courage which the multiplicity of the obstacles they had to overcome were depriving them of?

† Without entering into any explanation of the nature of this machine, some idea of its power may be given by simply stating the fact that, in a machine the area of the section of the piston of which is sixty-four inches, that of the valve admitting the water into the cylinder is an eighth of an inch, and the power of the pump applied to it is one ton, the pressure effected by it will be four thousand and ninety-six tons!—Ed.

singular effects of which will always astonish the vulgar—the Lachryma Batavica,* for instance, or the Bologna mattrasses;† even the games of children, such as the kaleidoscope,‡ or those little dolls which, when placed upon musical tables or instruments, move in time, and turn one another round, as in waltzing.‖ If it be possible to effect wonders by such insignificant means, are we not right in concluding that an immense number of the assumed miracles of antiquity proceeded from similar

* Tears of glass, which may be struck by a hammer upon their spherical surface without breaking, but which fall into powder as soon as the thread which forms the tail of the tear is broken.

† Little pear-shaped bottles of unannealed white glass, within which balls of marble or of ivory may be rolled, without injuring them; but if a fragment of flint, although no larger than a grain of hemp seed, fall into them, they break in the hand into five or six pieces. These mattrasses and Batavian tears are truly interesting to curiosity; they are now seldom manufactured; and when the time arrives, long after they shall have ceased to be made, the account of them will appear a fable, and we shall refuse to believe in their wonderful properties.

‡ The kaleidescope is a small instrument invented by Sir David Brewster. It consists of a cylindrical tube, containing two reflecting surfaces inclined to each other at any angle which is an aliquot part of 360°; and having their edges in contact, so as to have the form of a half opened book. When any object is placed in the tube, so as to be reflected by the above surfaces, and the other end of the tube is applied to the eye, and turned round, an ever varying succession of splendid tints and beautiful symmetrical forms are perceived; sometimes vanishing from the centre, sometimes emerging from it, and sometimes playing around it in double and opposite oscillations in the most pleasing manner.—Ed.

‖ This game was known, when invented, under the name of *danso-musicomanes*.

causes? The means are lost, but the remembrance of the effects remain?

We might multiply such suppositions, but we think we have said enough to attain our object. Setting aside everything belonging to sleight of hand, to imposture, or the illusions of the imagination, there are none of the ancient apparent miracles that may not be re-produced by any person well versed in the modern science, either immediately, or by applying himself to penetrate the mystery, and discover the causes. Modern science also affords facility for operating other apparent miracles, not less numerous nor less brilliant than those contained in history.

The observation of what modern jugglers are able to effect, tends, in a great degree, to explain many of the magical operations of the ancients.

## CHAPTER XII.

Conclusion—Principles followed in the course of the discussion—Reply to the objection that the scientific acquirements of the ancients are lost—Democritus alone, among them, occupied himself with observations on experimental philosophy—This philosopher perceived, in the operations of magic, the scientific application of the laws of Nature—Utility of studying the apparent miracles of the ancients in this point of view—The Thaumaturgists did not connect together their learned conceptions by any theory, which is a proof that they had received them from a prior period—The first Thaumaturgists cannot be accused of imposition; but it would be dangerous, in this day, to attempt to subjugate a people by apparent miracles; voluntary obedience to the laws is a certain consequence of the happiness which just legislation procures to men.

We have undertaken to restore to ancient history that grandeur of which an apparent mixture of puerile fables robbed it; and to demonstrate that the apparent miracles, and the magical operations of the ancients were the result of real scientific knowledge, more or less advanced, which the Thaumaturgists, for the most part, had secretly transmitted from one period to another; at the same time,

with the greatest care, concealing that knowledge from all other men.

Two principles have regulated our conclusions:

Firstly.—We consider it absurd to wonder at, or to refuse to believe, what appears supernatural, when it can be naturally explained.

Secondly.—We regard it reasonable to admit that the physical knowledge proper for the working of apparent miracles was possessed by some men, at the time, and in the country where historical tradition has placed the miracles.

There must, we maintain, be a plausible motive for denying what has often been attested by many authors, and repeated at divers times: that motive no longer exists, and the apparent miracle re-enters the class of historical facts, when an explanation, deduced from the nature of things, has dispelled the supernatural appearance that caused it to be regarded as chimerical.

But, again, how is it that conceptions of such high interests have never descended to us? Histories have been lost over all the world connected with the greatest parts of past times; and also much knowledge of every kind, the possession of which by the ancients cannot be disputed. To the general causes of destruction, which have occasioned these immense gaps in the domain of human intelligence, are joined two in particular, the power of which we have described; the one is the mystery with which religious and political interests endeavoured to envelop free ideas; the other is the want of a systematic connexion,

which alone could have established between them an accurate theory, a connexion without which facts were successively lost. There was also no possibility remaining for those which survived to recover those which sank gradually into the abyss of oblivion, from the lapse of time, from negligence, fear, superstition, and ignorance.

We must not judge ancient conceptions by our own. Experimental chemistry, considered as a science, dates from the last century. It only existed before as a capricious empiricism, directed by chance, misled by the dreams of the alchymist. More anciently, the Romans had copied the writings of the Greeks, who themselves, without attempting more experiments, copied what they found in the most ancient books, or in the recitals of foreign authors, whom they did not always understand. Democritus* alone seems to have felt the necessity of

* Democritus was born at Abdera, in Thrace, in the year 460, B.C. He received his first instructions partly from some Magi that were left by Xerxes at Abdera, partly from Leucippus, a celebrated philosopher of Elea. He travelled into Egypt, in order to acquire geometry from the Egyptian priests; and also visited Persia and Athens for the purpose of obtaining knowledge, in the pursuit of which he expended all his patrimony, and returned to Abdera in a state of indigence. This rendered him liable to a law which denied funereal rites in the State to any native who had spent his patrimony: but having read one of his works, the *Diascosmus*, aloud to his fellow-citizens, he not only acquired an exemption from this law, but received a present of, it is said, 500 talents; and, at his death, was buried at the public expense.

Democritus loved retirement and study; and the tradition runs, that he put out his eyes that he might not be disturbed from meditation by external objects. He was, perhaps, on this account

observing, of learning, and of knowing for himself.* He passed his life in making experiments, in noting down in a book which *treats of Nature*, facts that he had verified.† We may ask, to what point had he conducted his researches, in pursuing which he had probably no theory to serve him as a guide? It is difficult to conjecture, his works having long since perished. It is at least certain, that in the general opinion they had acquired very great authority. So great was the weight of his testimony in physics and in natural history, that works published under his name, but not written by him, circulated widely, although filled with ridiculous fables upon the properties of minerals, animals, and plants.‡ Pliny, who often quotes these pretended works of Democritus, believed in their authenticity; but Aulus Gellius has unveiled the impositions,

accused of insanity; but Hippocrates declared that his accusers, not Democritus, were mad. His doctrines were of a very singular character. Thus, he contended for the eternity of the universe;—that everything, even mind, was material;—and that the latter was only different from material bodies by the arrangements of its component atoms. In morals, he contended that the only thing needful was a cheerful spirit; and as he took every opportunity of laughing at the follies of mankind, he acquired the appellation of the *Laughing Philosopher*. From the extent of his acquirements, he was regarded by the ignorant as a magician, especially in the close of his life, which extended to 104 years. He died in the year 357, B.C.—Ed.

* *Encyclop. Méthod. Philosophie Ancienne et Moderne*, tome I. p. 319.

† Petron. *Satyric.*—Vitruv. *De Architect.* lib. IX. cap. III.

‡ Aul. Gell. *Noct. Attic.* lib. X. cap. XII.—Columell. *De Re Rustica*, lib. VII. cap. V.—Diogen. Laert. in *Democrit. vit.* sub. finem.

and is justly indignant at the outrage made on the memory of so great a man.

In a passage, unfortunately too concise, Solinus* seems to present Democritus as engaged in a frequent contest against the magii, and opposing to their impostures phenomena prodigious in appearance, but nevertheless natural, to show them how far the power of the hidden properties of bodies can extend. "Democritus," says Lucian,† "believed in no miracle; persuaded that those which were effected owed their success to deception; and he applied himself to discover the method by which they could deceive: in a word, his philosophy brought him to this conclusion, that magic (an art well known by him, since the magi‡ were its institutors,) *was entirely confined to the application and the imitation of the laws and the works of nature.*"

This opinion, professed by the first acknowledged philosopher of antiquity, who studied science as it ought to be, is precisely that which we have striven to establish. If we have not laboured in vain, we may be allowed to deduce from this theorem some consequences upon the possible advances of the knowledge of nature, in reference to the history of mankind, and the principles of civilization.

1.—The ancients, until an epoch which we have

* "*Accepimus Democritum Abderitem, ostentatione scrupuli hujus* (catochitis lapidis) *frequenter usum, ad probandam occultam naturæ potentiam, in certaminibus quæ contrà magos habuit.*" (Solin. cap. IX.)

† Lucian. *Philopseud.*

‡ Diogen. Laert. in *Democrit. vit.*

not presumed to trace back, were so much occupied with particular facts, that they did not seek to arrange and connect them. The moderns, perhaps, fall into the opposite excess. Do they not neglect too much to take advantage of isolated facts deposited in books, and reproduced even in the laboratories, but which, otherwise, do not direct our researches to any immediate application, nor display either any affinity or any opposition to the existing theories?

We have seen that much may be gained to natural history by the examination and the discussion of the prodigies related by the ancients: and we contend that the study of their apparent miracles and their magical operations would not be without advantage to physics and to chemistry. In attempting to arrive at the same results as the Thaumaturgists; and at which they have allowed us to glance, or that can be supposed to have emanated from them, curious, even useful discoveries, in application to the arts, would be obtained; and a great service thus rendered to the history of the human mind, as the important sciences lost sight of would be recovered. The loss of these among the Romans, and the Greeks, was owing to, or at least was accelerated by, the absolute defect of method and of theory.

II. The inevitable consequence of this failure is that the magicians and the Thaumaturgists have never been separable from their books, and have been merely the slaves of their formularies—truly apprentices; and indeed, they were only mechanically acquainted with the processes of their art; without even distinguishing how far super-

stition, or the intention of imposing it, had mingled with superfluous ceremonies. The most ancient, as well as the most recent, present this characteristic trait. If they did not then invent anything,—from whom, it may be asked, did they procure their secrets, their formularies, their books, and their entire art? We have to investigate this branch of knowledge, as every other, precipitated into indeterminate times, when the sciences were either invented or perfected. They afterwards fell into decay, and only were kept in view by incoherent lights, shed upon the minds of men, who retained the employment of them, without understanding their nature. We are here thrown back into that antiquity, which history points out confusedly, but which is anterior to history.

III. In attempting to penetrate, by the aid of some probable conjectures, into that darkness which the course of time renders progressively more profound, a remarkable trait has struck us; namely, that the opinion, which ascribed a celestial origin to miracles and to magic, was not in the main the consequence of an imposition, but was born of that piety which desired that every kind of excellence should emanate from the Divinity.* It was maintained by the *figurative style*, which naturally amalgamated itself with religious sentiments. Thus, among the legislators, who have had recourse to this venerated

* As far as respects real miracles no other opinion can be formed: for what idea can be formed of a miracle if not that published by Dr. Thomas Reid, namely, that it is "an effect that indicates a power of a higher order than the powers which we are accustomed directly to trace in phenomena more familiar to us, but a Power, whose continued and ever present existence, it is atheism only that denies."—Ed.

agent, for giving stability to their operations, the most ancient, at least, are not supported by falsehood; they have not professed that execrable doctrine, *that it is necessary to deceive men.* It was in good faith, that they declared themselves inspired; and that they offered their marvellous works as proofs of their mission, because they humbly ascribed their knowledge, their virtues, their sublime views, and their conceptions above the vulgar, to the Divinity.

These great men, were they now alive, would adopt a very different method. He who would seek, in the present day, in the art of working apparent miracles an instrument for acting upon civilization, would soon fail, because he would knowingly deceive: his dishonesty, contrary to morality, would be contrary to the spirit of *progressive civilization*, which ever tends to draw aside the veil behind which nature and truth are often concealed.

Must it then be concluded that, deprived of this powerful lever, legislation must be powerless over the minds of men, and that to direct their actions, it has need of a perpetual coercive force? We reply, certainly not! Whatever may be said of our own times, it is not necessary to deceive men, when it is intended to conduct them to happiness. The man who deceives thinks less of serving those whom he deceives, than of upholding his own pride, securing his personal ambition, or satisfying his cupidity. The desire of being governed is natural to men, when they become members of the social state: it increases among nations in the ratio of their knowledge and well-being and, in proportion to the

reasonable desire of enjoying undisturbed the advantages that they possess. It is with this sentiment that the politician, whose intentions are upright, will find a foundation to build upon, not less solid than that which he would acquire from an assumed intervention of Divinity; a foundation which will never give way, nor leave him exposed to the inconveniences, nor to the serious consequences that religious fiction leads to; and which will never threaten to overthrow what is founded upon reason, and upon the progress of natural perceptions.

"Kings! reign for your people!" and then to the astonished observer, who shall ask to what illusions their obedience and your power are due, you can reply, "Here is all our magic; here is the source of all our apparent miraculous power."

# ILLUSTRATIONS.

## UPON DRAGONS AND MONSTROUS SERPENTS, MENTIONED IN A GREAT MANY FABULOUS OR HISTORICAL NARRATIONS.

THERE are, perhaps, in the empire of the marvellous, no narrations that occur more frequently than those which describe some winged dragon, or serpent of monstrous dimensions, devouring men and animals, until by the force of heroic valour or some miraculous power, the country which is exposed to its ravages is delivered. Dupuis * and M. Alex. Lenoir † have imagined these narrations to be the figurative expressions of the astronomical themes of Perseus, the liberator of Andromeda: threatened by a sea monster; of Orion, the vanquisher of a serpent, emblems in themselves of the victory of virtue over vice, the principle of good over the principle of evil. They regard it also, when divested of every allegorical veil, as intimating the victory of the spring sun over the winter sun, and of light over darkness.

It is under a different aspect that we propose to treat of the same subject: we shall inquire how it is that an astronomical

* Dupuis. *Origine de tous les cultes.*

† A. Lenoir. *Du Dragon de Metz, appelé* Graouilly, &c. *Mémoires de l'Académie Celtique*, tome II. pp. 1—20.

emblem has been so frequently converted into a positive subject of history; what are the causes which have, in different places, introduced such remarkable variations into the legend; and, finally, why other myths or other facts have been added or united to this legend, which originally were unconnected with it?

## § I.

### OF REPTILES ATTAINING UNCOMMON GROWTH, WHICH HAVE EXISTED, AND GIVEN RISE TO, OR CONFIRMED, MANY OF THESE NARRATIONS.

We may inquire whether there ever existed reptiles of a proportion extraordinary enough, or animals of a form monstrous enough, to have given a natural origin to the legends now under discussion?

Finding, from traditions, that Dragons abounded in the department of Finisterre, and were overcome by supernatural power, an observer* has conjectured that these monsters, the subjects of so many legends, might have been the crocodiles that formerly infested the rivers of France, and the bones of which have been found in several parts. The thing is not impossible.

In 1815 a crocodile was killed near Calcutta, which measured from seventeen to eighteen English feet in length, armed with enormous claws. "At the place where the head and body joined, was a swelling, from which rose four bony projections; and upon the back were three other rows of similar projections, and four more diverged from the tail, the end of which formed a kind of saw, being, indeed, the continuation of these projecting files."† These *swellings* and these *bony projections* were looked upon as defensive weapons; and similar projections were also found upon the famous *Tarasque* of *Tarascon*, and many other dragons or serpents represented in the pictures of different legends. Here, again,

* M. de Fréminville. *Mémoires de la Société des Antiquaires de France*, tom. xi. pp. 8, 9.

† *Bibliothèque Universelle* (Genève). *Sciences*, tome iv. pp. 222, 223.

the fiction may possibly have originated in the paintings exaggerating a fact actually observed.

It was rumoured several years ago, that a monstrous reptile had been killed at the foot of Mount Salevus ; and ravages proportioned to its size were attributed to it. Its carcase was examined by naturalists, first at Geneva, and then at Paris. It proved to be nothing more than an adder of extraordinary growth, but in no respect prodigious. In a less enlightened age, we may ask, would more have been necessary for furnishing to the mountaineers of Savoy a marvellous narration, which would have been confirmed by tradition, and probably enlarged in each succeeding generation?

History has perpetuated the memory of the serpent which Regulus opposed in Africa with engines of war. It was probably a boa constrictor, which had attained to its greatest degree of growth.* Allowing something to exaggeration, the

* The tradition, as Livy relates it, make this gigantic Numidian Python one hundred and twenty-feet long ; and it also stated that, when destroyed, the decomposing carcass of the monster so polluted the air, that the Romans were forced to move their camp. The skin was nevertheless secured, and sent in triumph to Rome. This serpent, the African Python, differs in some of its features from the boa of South America, but it resembles that reptile in its bulk, its muscular strength, and the absence of poison fangs. In South America the boa is viewed with horror, on account of a belief that it exercises a certain influence over the destiny of any one who injures it, and, sooner or later, he suffers severely for his audacity.[a] Allowing for exaggeration, it is probable that the Python referred to in Livy was of unusual size, and hence well calculated to strike terror into the minds of those unaccustomed to the sight of enormous serpents. It seized its victim with its teeth, but, like the boa, destroyed it by pressure within the folds of its powerful body. The author of *The Seasons* describes this Python—

> From his dark abode,
> Which e'en Imagination fears to tread,
> At noon, forth issuing, gathers up his train
> In orbs immense.—Thomson.—Ed.

[a] Smith's *Illustrations of South America.*

natural language of surprise and fear, it becomes easy to reconcile the tradition here with truth and probability.

It is not always necessary to assume much exaggeration. A modern traveller* assures us that in the mountains of *Galese* serpents from thirty to forty feet in length are still to be met with. Aelian† mentions also, in several places, reptiles of an extraordinary size. Let us recollect that an almost religious respect for the lives of certain animals must formerly, particularly in India, have permitted serpents, by growing old, to attain to enormous dimensions. This respect for serpents was seconded by a superstition which, in the temples, consecrated many of the reptiles. Alexander admired in one of the Indian temples a serpent which is recorded to have been seventy cubits in length.‡ We know that sacred dragons were revered at Babylon, at Melita in Egypt, in Phrygia, in Italy, in Epirus,‖ in Thessaly,§ in Boœtia, and in the grotto of Trophonius.¶

Finally we may remark, that the progress of civilization has expelled these immense reptiles from countries where they formerly lived in peace. There are no longer any boas in Italy. Solinus places them in Calabria; and describes their habits with so much correctness, that we cannot suppose he meant to speak of monstrous adders. Pliny confirms this narration, by mentioning a boa in the body of which a child was found. It was killed in the Vatican, in the reign of Claudius, only thirty years, at the utmost, before the period in which Pliny wrote.**

These positive facts would prepare credulity to confound with history every legend in which, for some other reason, these monstrous serpents figured.

* Paulin de Saint-Barthélemi. *Voyages, &c.* tome 1, p. 479.

† Aelian. *De Nat. Anim.* passim, et lib. XVI. cap. XXXIX.

‡ Ibid. lib. XV. cap. XII.

‖ Ibid. lib. XI. cap. XVII.; lib. XII. cap. XXXIX.; lib. XI. cap. CCXVI.

§ Aristotel. *De Mirabil. Auscult.*

¶ Suidas. *verbo Trophonios.*

** Plin. *Hist. Nat.* lib. VIII. cap. XIV.

## § II.

### OTHER LEGENDS FOUNDED ON FIGURATIVE EXPRESSIONS TAKEN IN A PHYSICAL SENSE.

Winged serpents, the true dragons, could never have existed: and the supposed union of two natures so opposite, must have been originally merely a hieroglyphic—an emblem. But poetry, which lives in figures, did not hesitate to possess itself of the image as well as the expression. The reptiles which tore to pieces the sons of Laocoon were called dragons by Q. Calabar;* Virgil gives them the name of dragons and serpents by turns.† The two terms seem to have been synonymous in poetical language; and the wings with which dragons have been endowed are only the emblem of the promptitude with which the serpent pounces upon its prey; or in order to seize it, raises itself to the tops of trees. Here, as in many other circumstances, the figurative expressions have taken place of the reality in the belief of the vulgar, not less ignorant than eager after the marvellous.

The modern Greek gives the expressive name of *winged* serpents to the locusts, which carried on the wind, in vast swarms, devastate his harvests.‡ This metaphor is probably ancient; and may have originated many fables and narrations respecting the existence of *winged serpents*.

But these explanations and those connected with physical facts are vague; and sometimes purely local. They cannot be applied

* Q. Calaber. *De Bello Trojano.* lib. XIII.—A Greek poet, who lived in the third century, and wrote a poem in fourteen books, as a continuation of the Illiad.—ED.

† "*Immensis orbibus*, angues" (vers. 204.)
"Serpens *amplexus uterque*," (vers. 214.)
"*Delubra ad summa* dracones," (vers. 225.)
Virgil. *Æneid.* lib. II.

‡ Pouqueville. *Voyage dans la Grèce*, tome III. pp. 562, 563.

to a precise fact, which is found in every country and in every age, related in the same manner, and with only slight variations in the principal circumstances.

## § III.

### MONSTROUS SERPENTS MAY BE EMBLEMATIC OF RAVAGES PRODUCED BY INUNDATIONS.

St. Romanus, in 720, or 628, delivered the town of Rouen from a monstrous dragon. "This miracle," it is said in a dissertation upon the miracle of St. Romaine and La Gargouille is only the emblem of another miracle of St Romanus, who made the Seine which had overflowed its banks, and was about to inundate the town, return to its bed. The very name given by the people to this fabulous serpent is another proof of it: gargouille is derived from *gurges*, etc.*

In support of his opinion, the author quoted a strophe from the hymn of Santeuil:

Tangit exundans aqua civitatem;
Voce Romanus jubet efficaci;
Audiunt fluctus, docilisque cedit
Unda jubenti.

In Orleans, also, a town frequently exposed to the ravages of the waters which bathe and fertilize its territories, a ceremony is

* *History of the Town of Rouen*, by Servin, 1775, 2 vols. 12mo. vol. II, p. 147.—It is more probable that the fable of the destruction of the serpent is founded on the fact of St. Romanus having destroyed the remnant of idolatry, and levelled with the ground temples of Venus, Jupiter, Apollo, and Mercury which existed in his diocese. "No traces of this story," says Butler, speaking of the story of the serpent, "are found in any life of this saint nor in any writings before the end of the fourteenth century. The figure of a serpent, called *Gargouille*, seems here, as in some other towns, originally to have been meant to represent symbolically the devil overcome by Christ."—Ed. *Lives of the Fathers, Martyrs, &c.* Oct. 22.

celebrated similar to that which perpetuates the miracle of St. Romanus at Rouen. Indeed a great number of traditions might be quoted in support of this conjecture.

The island of Batz, near St. Pol de Leon, is said to have been desolated by a frightful dragon. St. Pol, who died in 594, by the virtue of his stole and staff precipitated the monster into the sea. Cambry,* who relates this tradition, tells us that the only fountain existing in the island of Batz, is alternately either exposed or covered by the tides of the sea. He then relates, that "near the castle of Roche Maurice and the ancient river of Dordoun, a dragon devoured men and animals."†

It seems but natural to suppose that these two narratives are emblematical of the ravages committed by the sea and the waters of the Dordoun.

St. Julian, first Bishop of Mans, in 59, destroyed a horrible dragon at the village of Artins, near Montoir.‡ This dragon, under the system discussed by us, should represent the inundations of the Loire, which flows in the vicinity. It might be also imaged by a dragon of nine or ten fathoms long, over which, in a cavern by the side of a *fountain*‖ near Vendôme, the hermit St. *Bié* or *Bienheuré,* towards the end of the fourth century, triumphed. The inundations of the Scarpe might be represented by the dragon who terrified and expelled from an island, the holy Bishop who has bequeathed his name to the town of St. Amand:§ those of the Moselle, by the Graouilli, the monstrous serpent which St.

* Cambry. *Travels in the Department of Finisterre,* vol. i. pp. 147, 148.

† Ibid. ibid. vol. i. p. 57.

‡ Moreri. *Historical Dictionary,* art. *Saint Julien.* M. Duchemin-La-Chenaye gives the name of la Roche-Turpin to the scene of this victory. *Mémoires de l'Académie Celtique,* tome iv, p. 311.

‖ M. Duchemin-La-Chenaye. Ibid. pages 308 and following.

§ M. Bottin. *Traditions des Dragons volans dans le Nord de la France. Mélanges d'Archéologie.* (8vo. Paris, 1831), pp. 161—164.

Clement overcame at Metz*; and those of Clain by the dragon of Poitiers, which hid itself near this river, and whose death was a benefit conferred by Saint Radegonde, towards the middle of the sixth century.†

In the same manner may be explained by the inundations of the Rhone, the history of the monster of Tarascon, which in the first century, was bound with the garter of St. Martha, who caused its death; and the representation of which, called Tarasque, is still carried in procession, in the town, on the morning of the Penticost.‡ The overflowings of the Garonne would be emblemized by the dragon of Bordeaux, yielding, in the eleventh century, to the virtue of the Virgin of St. Martial; and the dragon of St. Bertrand de Comminge, conquered by the Bishop of St. Bertrand in 1076.‖

Thus also the dragon from which Saint Marcel delivered Paris,§ and the winged dragon of the Abbey of Fleury¶ offer images of the overflowing of the Seine and Loire.

Thus, also, at Lima, on the fête day of St. Francis of Assisi, if one observes figuring in the procession an ideal monster called Teras-

* A. Lenoir. *Du Dragon de Metz, &c. Mémoires de l'Académie Celtique*, tome II. p. 1 and following.

† M. Jouyneau-des-Loges. *Mémoires de l'Académie Celtique*, tome V. p. 57.

‡ Rouvière. *Voyage du Tour de la France*, 12mo. 1713, pp. 401, 402.—Dulaure. *Description des principaux Lieux de la France*, tome I. p. 16, art. *Tarascon.*—Millin. *Voyage dans le Midi de la France*, 4 vols. 8vo. tome III. pp. 451—553. The figure of the Tarasque may be found in the atlas of the Travels, plate 63; it is not, however, very correct.

‖ M. Chaudruc. *Mémoires de l'Académie Celtique*, tome IV. p. 313.

§ *Lives of the Saints for every day of the year*, 2 vols. 4to. Paris 1734, tome II. p. 84, *Life of St. Marcel*, 3rd November.—Gregor. Turon. *De Glorid Confess.* cap. LXXXIX.—It is thought St. Marcel occupied the episcopal throne of Paris towards the end of the fourth century.

¶ Du Cange. *Glossar.* verbo *Draco*, 2 . . . tome II. p. 1645.

con,* it will recal the fact that Lima, situated near the sea, is watered by a river which supplies every house with water. Thus M. Champollion explains with probability the hieroglyphic of the two serpents, each with the human head, seen in the church of St. Laurence at Grenoble, by the proverb "Serpens et draco devorabunt urbem," rendered by the vulgar tongue into these two verses:—

"Lo serpein et lo dragon
Metront Grenoble en savon,"

alluding to the situation of the town at the mouth of the Drac (Draco), in the Isère, represented by the serpent whose sinewy windings are pretty well imitated by the course of this river.† The comparison between the windings of a river and the writhings of a serpent are, indeed, as frequently found in common language, and in ordinary names as in poetical metaphors. Near to Heleno-Pole, a town in Bythinia, flows the river Draco, Dragon; this name says Procopius‡ was given to it from its numerous windings which obliged travellers to cross it twenty times together. It is doubtless for a similar reason, that a river which rises in Mount Vesuvius and waters the walls of Nuceria (Nocera), received the name of dragon.‖

This explanation is strengthened by a confession, the more remarkable, because the author, with whom it originated, had collected and tendered as positive facts, all the popular stories of dragons and monstrous serpents which, at the commencement of the eighteenth century, were broached in the interior of Switzer-

* *Description of the actual State of Peru*, extracted from the *Mercurio Peruviano.—Annals of Travel*, by M. Malte-Brun, vol. i. p. 92.

† *Dissertation upon a Subterraneous Monument existing in Grenoble*, in 4to. année XII.—*Encyclopedical Magazine*, IXth year, vol. v. pp. 442—443.

‡ Procop. *De Ædific. Justin.* lib. v. cap. II.

‖ Procop. *Hist. Miscell.* lib. I. cap. LV.

land. Scheuchzer* allows that the name of Drach (Draco) was frequently given to impetuous torrents which suddenly burst forth like avalanches.

The *dragon*, the multitude would then exclaim, has *made an irruption* (Erupit Draco). The cavity in which the torrent rose, or that in which the waters were absorbed, were consequently naturally called the Dragon's hole, or the Dragon's Marsh, names which we find in many places celebrated by some one or other of the legends which have occupied our attention. In spite of the probability which many of these affinities present, two grave objections refute the system they are destined to establish.

*Firstly.*—If it is as easy for a supernatural power to arrest the inundations of a river, or the sea, as to put to death a monstrous serpent, such a comparison cannot be applied to the limited strength of an ordinary man. Now, in these legends we shall see figuring chevaliers, soldiers, banished men, and obscure malefactors, who no celestial grace could have called out to work miracles. And who can be persuaded that a single individual, whatever may be his zeal or his power, would be able to turn back into their beds the Loire and the Garonne, widely inundating the plains with their waters ?

*Secondly.*—The multitude of the legends does not allow us to suppose that, in times and places so different, it would have been agreed to represent by the same emblem, events, which although similar, yet were peculiar to each period. An emblem always the same, supposes a fact, or rather an allegory received in all ages and in all places. Such as that of the triumph obtained of the principle of *good* and *light* over the principle of *evil* and *darkness* represented by the *serpent*.

* Scheuchzer. *Itinera per Helvetiæ Alpinas Regiones, &c.* tom. III. pp. 377—397. *Vide* pp. 396 et pp. 383, 384, 389, 390.

## § IV.

### THE LEGEND OF THE SERPENT HAS BEEN TRANSPORTED FROM ASTRONOMICAL PICTURES INTO MYTHOLOGY AND HISTORY.

We shall not here retrace, in its details, the astronomical picture of this triumph so frequently renewed. Let us only observe that three accessory objects are grouped, almost always with the principal subject: namely a *virgin*, a *young girl*, or a *woman;* a *precipice*, a *cavern*, or a *grotto;* and the *sea;* a *river*, a *fountain*, or a *well*.* We find one part of this legend put into operation, if I may so express myself, in the manner in which the sacred dragons of Epirus, Phrygia, and Lanuvium received their food. It was carried to them in their *cavern* by a young *girl*, who was exposed to terrible punishment if she was not a virgin.† A *woman* also, the magician, whom the unfortunate Dido expressed a desire to consult, presented the nourishment to the sacred dragon which guarded the Hesperides.‡

The Greek mythology is rich in legends, the astronomical origin of which is not dubious. Is it necessary to explain why a serpent or a dragon figures so often in the celestial planisphere? In the war of the gods against the giants, an enormous serpent attacked Minerva. The virgin goddess seized the monster and threw it towards the heavens, where it became fixed among the stars.‖ Ceres placed in the heavens one of the dragons that drew her chariot. Triopas having offended the same divinity, the goddess punished him first by the torment of an insatiable hunger, and then put him to death by a dragon, which from that

* A. Lenoir. *Du Dragon de Metz, &c. Mémoires de l'Académie Celtique.* tome II. pp. 5 et 6.

† Aelian. *De Nat. Animal.* lib. XI. cap. II. et XVI.—*Propert.* lib. IV. Eleg. VIII.

‡ Virgil. Æneid. lib. IV. vers. 483—485.

‖ *Hygin. Poet. Astronom. Serpens.*

time took a place with her in the heavens. According to other mythologists, Phorbas, the son of Triopas, merited this honour, for having delivered the island of Rhodes from a monstrous serpent. Some observe in the constellation of Ophiucus, Hercules upon the borders of the river Sagaris, vanquishing the serpent which Omphalus had commanded him to combat.*

Themis, the heavenly virgin, answered the petitions of mortals at Delphi. Python, the monstrous dragon approached, and the oracle was deserted; nor did any one dare to resort to it until Apollo (the sun) had pierced Python with his irresistible arrows.† Let us observe that the tradition in these narrations, does not omit the divine nature of the dragon. Apollo after having destroyed the monster was obliged to submit himself to a religious aspiration; and the sacred serpents of the Epirus were supposed to have owed their being to Python.‡

Near the river in Colchis, Jason, assisted by Medea, who was yet a virgin, triumphed over the dragon which guarded the golden fleece. Hercules and Perseus delivered Hesione and Andromeda, virgins who were exposed as prey to the voracity of a sea monster. A *woman* learned in the arts of enchantment saved the inhabitants of Tenos, by destroying a dragon that threatened to depopulate their island.‖

According to a legend, preserved by the Christian faith in the figurative sense only, but adopted literally by painters, and which has a host of believers, St. Michael felled to the ground, and pinned down with his lance, a dragon which was vomited forth from the infernal *pit*, and which was the same that, according to Dupuis, in the Apocalypse, pursued the heavenly virgin. Half-a-mile on the road to Baruth (the ancient Berythe), is to be seen the cavern

* *Hygin. Poet. Astronom. Ophiucus.*

† Pausanias. *Phocic.* cap. v.

‡ Aelian. *Var. Hist.* lib. III. cap. I, etc. *De Nat. Animal.* lib. XI. cap. II.—Plutarch. *De Oracul. Defectu.*

‖ Arist. *De Mirabil. Auscult.*

where dwelt the dragon killed by St. George, at the moment when about to devour the daughter of the King of the country.* According to another legend, it was on the borders of a lake, the asylum of this monster, that St. George saved the King's daughter and twelve other virgins, whom an oracle had commanded to be given up to this horrible dragon.†

Almost all mythologies contain, with some variations, the same legend; and, we may add, in how many of the Greek myths may it not be traced! Hercules, conqueror of the dragon of the garden

* *Voyages de Villamont* (1613). liv. III. p. 561.—Thévenot. *Relation d'un Voyage fait au Levant*, etc. 4to. Paris, 1668. p. 442.

† *Memoirs and Observations made by a Traveller in England.* (La Haye, 1698. pp. 214—232.) This work is attributed to Max. Misson.

As this celebrated religious hero, St. George, is the patron Saint of England, it is proper that some account of him should be here given. He was born in Cappadocia, of noble Christian parents. After the death of his father he went into Palestine with his mother, who had a considerable estate there, which fell to him. He became a soldier, and after having served as a Tribune, he was raised to the rank of a Colonel, and afterwards to higher rank, by the Emperor Diocletian, as a reward for his courage and conduct. But being equally strong in his faith, he threw up all his well-merited honours when that Emperor began his persecutions of Christianity; an act, in conjunction with his reprobation of the Emperor's cruelties, which cost him his life. He was thrown into prison, and cruelly tortured, and on the following day he was beheaded.

St. George became the patron Saint of military men; and, like all the other Saints of the Romish calendar, did many wondrous acts and performed many miracles, both during his life and after his death: hence churches were erected in honour of him in various parts of Europe. He was constituted the patron Saint of England by our first Norman Kings; and, under his name, Edward III. instituted the most noble order of knighthood in Europe. The promulgation of the pretended apparition of St. George to Richard I. in his Saracenic expedition, had such a beneficial effect on the spirits of his troops, as insured them victory. He is usually represented on horseback, slaying a dragon, an emblematical representation of his Christian fortitude in overcoming the Devil, the arch-dragon.—Ed.—See *Butler's Lives of the Fathers, Martyrs, &c.*

of Hesperides, a monster whose defeat was followed by the discovery of a fountain till then unknown; again, a dragon dwelt in a gloomy cavern, and guarded the fountain of Mars, until killed by Cadmus, who was himself afterwards transformed into a serpent; and it was a dragon from which Diomedes, on his return from Troy, delivered the Corcyreans.* Cenchreus was implored by the inhabitants of Salamis to be their King, as a reward for his victory over a dragon that had devastated their territories.†

Upon a monument discovered in Thebes, Anubis is represented, as St. Michael and St. George are in Christian paintings, armed in a cuirass, and having in his hand a lance, with which he pierces a monster that has the head and tail of a serpent.‡

In a succession of narrations, the marvellous portions of which have been principally borrowed by their compilers from the ancient mythology of Hindostan, we see some monstrous figures: now in the form of enormous serpents;‖ then as gigantic dragons, flapping their tails against their scaly sides;§ and having their voracity yearly satiated by young virgins, but yielding to the valiant attacks of warriors aided by supernatural powers, at the very moment when the king's daughter is about to become their victim.

*Chederles*, a hero revered among the Turks, we are told "killed a monstrous dragon, and saved the life of a young girl exposed to its fury. After having drunk of the waters of a river which rendered him immortal, he traversed the world upon a steed

* Heraclides. in *Politiis.*

† Noël. *Dictionnaire de la Fable.* art. *Cenchreus.*

‡ A. Lenoir. *Du Dragon de Metz*, etc. *Mémoires de l'Académie Celtique*, tome II, pp. 11—12.

‖ *The Thousand and One Nights*, translation of Ed. Gauthier. 7 vols. 8vo. Paris, 1822—1823. vol. v. pp. 425—426.

§ Ibid. tome VI. pp. 303—305. et tome v. pp. 423—424.

as immortal as himself."* The commencement of this recital recals to mind the Hindoo myths and the fables of Hercules and Perseus. The termination may be regarded as an emblem of the sun, the immortal traveller, who ceases not his revolutions around the earth.

Among the figures sculptured on a granite block, discovered in the deserted town of Palenqui-Viejo, was remarked a serpent, from the throat of which issued the head of a woman.† One is tempted to connect this emblem to the legends of monstrous dragons. It is, at least, difficult not to imagine that the legend had passed into the *New World*. The Caribbees believe that the Supreme Being made his Son descend from heaven, in order to kill a dragon, which, by its ravages, desolated the nations of Guiana.‡ The monster succumbed ; and the Caribbees sprung from the worms generated in the decomposition of its corpse ; and on this account they regard all those nations with whom the cruel monster had formerly waged cruel war as their enemies. At first sight this is but the myth of Python ; but what are we to think of the strange origin that the Caribbees attribute to themselves ? We can but suppose that they had formerly received this tradition from a nation superior to themselves in strength, who wished to humiliate and degrade them ; and that they had preserved it from custom, and to justify their national hatreds and thirst for conquest. A no less singular belief is to be found among the same people. The Caribbees of Dominica assert that a monster, having its retreat in a precipice surrounded by rocks, bore upon its head a stone as brilliant as a carbuncle, from which issued so bright a light that the neighbouring rocks were illumined by it.‖ Similar legends have for a long time been received in countries with

* *Dictionnaire de la Fable.* art. *Chéderles.*

† *Revue Encyclopédique.* tome xxxi. p. 850.

‡ Noël. *Dictionnaire de la Fable.* art. *Cosmogonie Américaine.*

‖ Rochefort. *Histoire Naturelle et Morale des Isles Antilles.* (Rotterdam 1658), p. 21.

which it is supposed the Caribbees could not have had any communication.

At some period, which chronologists have had pretensions enough to fix, St. Margaret overcame a dragon, and from the head of the monster this virgin, afterwards raised to a heavenly abode, extracted a ruby, or carbuncle, an emblem of the brilliant star of the *northern crown* (Margarita), placed in the heavens near the head of the *serpent*.

In the history of Dieudonné of Gozon, we find mention also of a stone taken from the head of the dragon killed by this hero at Rhodes, and preserved, it is said, in his family. It was the size of an olive, and displayed many brilliant colours.*"

Two Helvetian traditions describe a serpent offering to a man a *precious stone*, as a token of homage and gratitude.† Faithful to these old superstitions, the popular language of the Jura still designates under the name of *vouivre*, a winged and immortal serpent, the eye of which is a diamond.‡

Pliny, Isidorus, and Solinus‖ speak of the *precious stone which the dragon carries in its head*. An eastern story teller,§ who describes a miraculous stone, the real carbuncle that shines in darkness, states that it is only to be found in the head of the dragon, the hideous inhabitant of the island of Serendib (Ceylon). Philostratus also assures us that in India a precious stone, concealed in the heads of dragons, was endowed with a powerful brilliancy and wonderful magical virtues.¶

That error which, by transforming an astronomical allegory into a physical fact, decorated the heads of serpents with a brilliant

* *Dictionnaire de Moréri.* art. *Gozon* (Dieudonné). Gozon died in 1353.

† Scheuchzer. *Itinerar. per Helvet. Alp. reg.* tome III. pp. 381—383.

‡ *Mémoires de la Société des Antiquaires.* tome VI. p. 217.

‖ Plin. *Hist. Nat.* lib. XXXVII. cap. X. Isidor. *Hispal. Origin.* lib. XVI. cap. XIII. *Solin.* cap. XXXIII.

§ *Stories of Cheikh El Mohdy*, translated from the Arabian by J. J. Marcel. 1833.

¶ Philostrat. *De Vit. Apollon.* lib. III. cap. II.

stone, had its rise in a great antiquity. "Although the serpent has a ruby in its head, it is, nevertheless, injurious," says a Hindoo philosopher, who has collected into his proverbs the precepts of the most ancient times.* This legend, arising from the figurative expressions of the relative positions the constellations of Perseus, the Whale, the Crown, and the Serpent occupy in the heavens, has been, we have seen, first connected with the victory of the spring sun over winter, and of light over darkness. The carbuncle, or ruby, which there held its place, and with which Ovid decorated the palace of the sun,† was, in fact, consecrated to that orb from its colour of flaming red.‡

## § V.

### THE SAME LEGEND CREPT INTO CHRISTIANITY, ESPECIALLY AMONG THE PEOPLE OF THE WEST.

As long as oppressed Christianity strove in secret against Polytheism, its worship, no less austere than its code of morals, only admitted in its ceremonies, still concealed by the aid of mystery,

* *Proverbs of Barthoveri*, etc. inserted in the work of Abraham Roger. *The Theatre of Idolatry; or, the Door Opened*, etc.: a French translation, 1 vol. 4to. (1760). p. 328.

† ——— Flammasque imitante pyropo.
Ovid. *Metamorph.* lib. II. ver. II.

‡ The Cardinal Dailly and Albertus Magnus, Bishop of Ratisbon, said Cartaut of La Villate, distributed the planets among the different religions. The sun fell to the lot of the Christian religion. It is for that reason we have always held the sun in singular veneration; that the town of Rome is called the *solar town;* and that the Cardinals who reside there are habited in *red*, the colour of the sun. (*Critical Thoughts on Mathematics*). 1 vol. 12mo. Paris, 1752; with permission and approbation.

In India an idea universally prevails that a stone exists in the head of serpents; and the snake charmers pretend to extract it from the head of the Cobra de Capella.—Ed.

simple rites, unencumbered by material representation. The researches and cruelties of persecutors could only tear from the Faithful their holy books and sacred vases; they had few or no images.*

But public worship could ill dispense with remarkable outward and visible signs: for, in the midst of a large assembly, words could hardly be conveyed to the ears of all the audience, but the images would speak to the eyes of all; they could awaken the most natural, the most universal inclinations. The multitude, therefore, delight in the magnificence of religious acts, and think that it cannot multiply too many images.

This would necessarily happen, even to Christianity, when (on the ruins of Polytheism) it publicly established its temples and worship. The progress was much more rapid, because the religion of Christ succeeded a religion rich in pomp and emblems; and it feared to repulse, by too rigid a simplicity, men accustomed to see and to touch what they believed in and worshipped.

Hence, as it was difficult to destroy and utterly to proscribe the former objects of a veneration, the Christians often preferred appropriating them to their own faith. More than one temple was changed into a church; more than the name of one God was honoured as the name of a Saint; and an immense number of images and legends passed without difficulty into the new faith, and were preserved by the ancient respect of the new believers.

The legend of a heavenly being overcoming a serpent, the principle of evil, was conformable to the language, the spirit, and the origin of Christianity. It was received, therefore, and reproduced in the religious paintings and ceremonies of the early Christians. St. Michael, the first of the archangels, was presented to the eyes of the faithful, piercing the infernal dragon, the enemy of the human race.†

* *Encyclop. Méthod. Théologie.* art. *Images.*

† This mode of representing the triumph of the faithful over the evil principle was general over every Christian country in the middle ages. The serpent, or dragon, was usually placed in the painting or the sculpture, under

In the fifth century in France,* and rather later in the West, were established the processions known by the name of *Rogations*.† For three days the image of a dragon, and winged serpent were presented to the observation of the faithful; and his defeat was depicted by the ignominious manner in which he was borne about on the third day.‡

The celebration of the Rogation varied according to the Dioceses, from the first days of Ascension week to the last days of the week

the feet of the Saint: but the populace could not understand the allegory; and as it was the interest of the monks to nourish their credulity, a fable or legend was attached to these representations, detailing the victory of the Saint over a true dragon or a real serpent. Thus, the allegorical representation of the patron Saint of England, St. George, destroying the dragon, is still extensively believed by the multitude as the record of a real victory over a material dragon: and to prove how eager the monks were to maintain the belief, "the monks in Mount St. Michael, in France, did not hesitate to exhibit, as pious relics, the sword and shield with which St. Michael, the Archangel, combated the dragon of the Revelations."[a]—Ed.

* Saint Mammert, Bishop of Vienna in Dauphiny, instituted the *Rogations* in 468 or 474. *Encyclop. Méthod. Théologie*, art. *Rogations*.

† The fasts termed *Rogations* were established by St. Mammestus on the occasion of an assumed miracle, said to have been performed through the influence of his prayers. A terrible fire broke out and raged in the city of Vienne, in Dauphiny, where he was Archbishop, in spite of every effort to extinguish it; but suddenly went out in consequence of the prayers of the Saint: and the same result followed his supplications on the occurrence of a second great fire, which alarmed the city more than the first. The worthy Prelate then formed the design of instituting an annual fast and supplication of three days to appease the Divine wrath, by fasting, prayers, tears, and the confessions of sins.[b] This fast gradually extended to other churches; hence, we find the *Rogations* kept in many other parts besides Vienne; but why the procession of the Dragon was engrafted upon those of the *Rogations* does not appear.—Ed.

‡ Guill. Durant. *Rationale Divinorum Officiorum*. fol. 1479. folio 226 recto.

[a] *Foreign Quarterly Review*, vol. xxxvi. p. 331.

[b] *Butler's Lives of Fathers, &c.*

of Pentecost. It corresponds to the time in which, the first half of the Spring being passed, the victory of the sun over winter is fully achieved, even in our cold and rainy climate. It is difficult not to perceive an intimate connection between the legends of the allegorical dragon and that period in which its appearance was each year renewed.

Other circumstances increase the strength of this argument. In the sixth century, St. Gregory the Great ordered that Saint Mark's day, 25th April, should be annually celebrated by a procession similar to that of the Rogation. The origin of this ceremony was as follows. Rome was desolated by an extraordinary inundation. The Tiber rose like an immense sea to the upper windows of the temples. Innumerable serpents, it is said, have emerged from the overflowing waters of the river, and finally an immense dragon,* a new Python, was born of this new deluge.† Its breath infected the air and engendered a pestilential disease,‡ by which the inhabitants were cut off by thousands. An annual procession perpetuated the remembrance of the scourge and of its cessation obtained by the prayers of the Pope and his flock. The date of the 25th of April, less distant than that of the Rogations from the equinox, is suitable to a country in which the spring is always more forward than in Gaul.

Whether by chance or by calculation, those people who transported to Lima under a southern hemisphere the *Tarasque*, the dragon of a northern nation, have fixed it on the 7th of October, the fete day of St. Francis of Assisi. This period approaches

* Guill. Durant. fol. 225 verso.—*Siffredi Presbiteri Mimensis. Epitome.* lib. 1. *De Miro Prodigio.*

† "*Ut Noe Diluvium renovatum crederetur.*" Platina. *De Vitis Max. Pontific.* in *Pelag. II.*

‡ "*Pestis inguinaria seu inflatura inguinum.*" These are the expressions made use of by the author of the *Rationale* (loco citato); he adds, that the Pope Pelagius II., successor to St. Gregory the Great, suddenly died of the same disease, with seventy other persons, while in the midst of a procession.

still nearer to the equinox of the Spring. But in equatorial countries, as under the moderate climate of Lima, the victory of the sun is not so long undetermined as in our northern regions where the first weeks of spring seem but a prolongation of winter.

Pliny has spoken of a mysterious egg,* to the possession of which the Druids attributed great virtues, and which was formed by the concurrence of all the serpents of a country. The inhabitants of Sologne, the echo of the Druids after two thousand years have passed, assert, without doubting the antiquity of the myth, they repeat, that all the serpents of the country assemble to produce an enormous diamond which, superior to the stone of Rhodes, reflects the liveliest colours of the rainbow. The day assigned for their miraculous production is the 13th of May,† a day belonging to the second half of the spring, like the days when the serpent of the Rogations was paraded. The epoch of this apparition furnishes us with a remark which is not devoid of interest. Its fixedness alone proves contrary to what we have hitherto advanced, that the dragon was not the emblem of inundations, of overflowings of rivers which could not every where have taken place on the same day. How then, it may be asked, came such an opinion to be established? When the original emblem was lost, the attention would naturally be arrested by a circumstance occurring in all the legends, which reproduced it, namely that the scene of action was always upon the shore of the sea, or banks of a river. The idea of the cessation of the ravages of the water must have appeared the more probable, from the procession of the dragon being regularly celebrated at a period of the year when the rivers, which had been swelled by the fall of snow, or the equinoxial rains, returned to their usual course.

* Plin. *Hist. Nat.* lib. xxix. cap. iii.

† Légier (du Loiret). *Traditions et usages de la Sologne, Mémoire de l'Académie celtique*, tome ii. pp. 215, 216.

## § VI.

### ALLEGORICAL EXPLANATIONS OF EMBLEMS IN WHICH THE FIGURE OF THE SERPENT OCCURRED.

Every church had its dragon. The emulation of exterior piety had, in these representations, the effect of making them excel in a desire to excite in the spectators sensations of admiration, astonishment, and fright. The visible part of the worship became soon the most important part of the religion to men who were solely attentive to that which struck their senses: the dragon in the Rogation processions was too remarkable not to attract the attention of the populace, and to usurp a prominent place in their belief. Each dragon had soon its peculiar legend, and these legends were multiplied without end. To those who would throw a doubt upon the probability of this cause we shall answer by one fact, that among the lives of the saints revered by the christians of the East, who did not adopt the institution of the Rogations, the victory achieved by a heavenly being over a serpent is rarely to be found.

The word dragon, contracted to that of *Drac*, designated a demon, a malevolent spirit, whom the credulous Provençal supposed to exist beneath the waters of the Rhone, and to feed upon the flesh of men. To act the *drac* was a term synonymous with doing as much evil* as the devil himself could be supposed to desire. Persons bitten by serpents were cured as soon as they approached the tomb of Saint Phocas, owing to the victory which this Christian hero, by undergoing martyrdom, achieved over the devil, the old serpent.† When in the eighth century, it was related that an enormous serpent had been found in the

* Du Cange. *Glossar.* verbo *Dracus.*—Millin. *Travels in the interior of France*, vol. III. pages 450—451.

† *Gregor. Turon. De Miracul.* lib. I. cap. XCIX.

tomb of Charles Martel,* was anything else meant, but the insinuation, than the demon had taken possession of this warrior, who though he saved France, and probably Europe from the Mussulman yoke, had had the misfortune to thwart the ambition of the heads of the church, and the cupidity of the monks.

It seems then reasonable to believe, as the author of the Rationale† expressly teaches, that the serpent or dragon carried in the processions of the Rogations, was the emblem of the infernal spirit, whose overthrow was supplicated from heaven; and that this defeat was attributed to the saint more particularly revered by the faithful in each diocese and parish. This kind of explanation has been reproduced under different forms by sensible christians who could not believe, in a physical sense, recitals too often renewed ever to have been true.

The demon is vice personified; victories achieved over vice may then have been figured by the same emblem. At Genoa, upon a small spot near the church of Saint Cyr is to be seen an ancient *well*, which, it is stated, formerly concealed a dragon, the breath of which was destructive to men and flocks. St. Cyr exorcised the monster, and forced him to come out of the well and to throw himself into the *sea*.‡ This miracle is still represented in pictures, and is allegorically interpreted by the erudite as the victory achieved by this holy preacher over impiety and libertinism. The same interpretation might be applied to the triumph of Saint Marcel over the serpent that ravaged Paris, since they say: "This serpent first appeared outside the town near the tomb of a woman of quality who had lived an irregular life."‖

* Mézérai. *Abrégé chronologique de l'Histoire de France.* année 741.

† Guill. Durant. *Rationale divinorum officiorum.* folio 226 recto.

‡ *Description of the Beauties of Genoa.* 8vo. Genoa, 1781, pp. 39, 41. Millin. *Travels in Savoy and Piemont*, vol. II. p. 239.

‖ *Lives of the Saints for every Day in the Year*, vol. II. p. 84.

M. Dulaure,* nevertheless, is of opinion that this and many other legends were emblematical of the triumph of the christian faith over the Roman and Druidical rituals. Incredulity is in fact, the worst of all vices in the eyes of the heads of any faith. The retreat of the dragon which was vanquished by St. Julian,† was near a temple of Jupiter; its fall may have figured that of Polytheism, when, at the voice of the apostle of Mans, its worshippers overthrew the altars of the dethroned God, and left his temple desolate. Upon the site of Epidaurus is to be seen a cavern which tradition has sometimes designated as the retreat of Cadmus when metamorphosed into a serpent, but more frequently as the abode of the serpent of Esculapius. When St. Jerome related that at Epidarus, St. Hilary triumphed over a devastating serpent concealed in that cavern, the learned seemed to have some reason for supposing the recital to be emblematical of the victory of the preacher of the gospel over the worship of Esculapius.‡ A similar allegory also explains the miracle that rendered St. Donat, Bishop of Corinth, the vanquisher of a serpent so enormous that eight yoke of oxen could scarcely drag along its corpse.‖ The date of the miracle, in the year 399, is also the period in which paganism fell irrevocably beneath the blow struck against it by the command of the two sons of Theodosius.

A monstrous dragon desolated the neighbourhood of Theil near Roche aux Fées (Rock of the Fairies), in the department of the Isle and Vilaine. St. Arnel, the apostle of that country, led it with his stole to the summit of a mountain and then commanded it to precipitate itself into the river Seiche. M. Noual de la Houssaye is of opinion that this miracle is emblematical of the

* Dulaure, *Physical, Moral, and Civil History of Paris*, 1st edit. pp. 161, 162 and 185, 186.

† *Mémoires de l'Académie celtique*, tome IV, p. 311.

‡ Appendini, *Notizie istorico-critiche sulle Antichità, &c. de' Ragusei*, tome I, p. 30. Pouqueville, *Voyage dans la Grèce*, tome I, pp. 24, 25.

‖ Sigeberti, *Chronicon*, anno 399.

victory this Saint achieved over the remains of the Druidical religion, the ceremonies of which had, till then, been perpetuated on the Rock of the Fairies. He explains in the same way the repetition of a similar miracle in the legend of St. Efflam, and in that of other saints.* His conjecture may be easily extended to the works of a Thaumaturgist, who, before a stone, most probably druidical and still honoured by superstitious rites, overcame a dragon which had ravaged the territory of Neuilly-Saint-Front skirting Chateau-Thierry.† On a leaden medal, struck at Amiens in 1552, (doubtless from some more ancient type), St. Martin is represented as piercing with a lance the body of a dragon which he tramples under foot. This was intended to designate the victories of the Saint over the pagan divinities.‡

Constantine, the overthrower of paganism, loved to have himself painted, armed with a cross and striking with his lance a formidable dragon.‖ Thirty years ago, in a town of Normandy, might be seen an old picture which served as a sign to an hotel; the costume and the figure were those of Louis XIV, the new St. Michael levelling to the earth the infernal dragon. It was, I presume, as a commemoration of the revocation of the edict of Nantes.

Heresy, indeed, not less than false religion, is reputed to be the work of the spirit of darkness.§ The bronze dragon, therefore, which until 1728, the monks of St. Loup, at Troyes, carried in the procession of Rogation¶ passed for the emblem of the victory of St. Loup over the Pelagian heresy.

* *Mémoires de l'Académie celtique.* tome v. page 377.

† *Mémoires de la Société des Antiquaires de France,* tome i. pages 426, 427.

‡ *Mémoires de l'Académie du département de la Somme,* tome i. page 699.

‖ *Euseb. Pamph...de vitâ Constantini.* lib. iii. cap. iii.

§ The Emperor Sigismond instituted the order of the *Vanquished Dragon,* in celebration of the anathema denounced by the council of Constance against the doctrines of John Huss and Jerome of Prague. The dragon signified heresy overcome.

¶ Grosley. *Ephémérides,* 3e partie. chap. xci, tome ii. pages 222—225.

## § VII.

### MULTIPLICITY OF FACTS OF THIS NATURE, ADOPTED AS REAL FACTS.

Allegories are beyond the comprehension of the ignorant multitude, who are accustomed to believe whatever they are told. The serpent paraded on Rogation day was generally regarded as the representation of a real serpent, to the existence of which they assigned a certain date. In vain was the meaning of the allegory revealed to the superstitious; in vain were they shown, for instance, a picture of St. Veran loading the evil spirit with chains; they persisted in believing, and in relating that the territory of Arles was formerly delivered by St. Veran from the ravages of a monstrous serpent; and a picture perpetuates the remembrance of this victory,* which according to the legend was obtained at the entrance of a grotto near a fountain.

Every parish had its dragon; and, still in all the parishes in Spain, the image of the serpent (Taras) is carried in procession on Corpus Christi day. The history of the monster varies still more than its forms, as imagination and credulity attributed to it supernatural deeds. From dread they passed to respect. The dragon of Poitiers† was piously surnamed the *good Saint Vermine*; they prayed to it; and they were eager to obtain chaplets touched by it. It is difficult to say, whether as a monument it remained what it had formerly been, an idol, or that it became so by degrees, among a superstitious people.

More commonly the emblem was surrounded by signs of hatred and horror. Its legendary history justified these sentiments. It had been the curse of the country in which its image was paraded. Its venom had poisoned the springs, and its breath infected the

* I saw these pictures in 1813, in Majore, Laa church in Arles.

† Notes of the *Society of the Antiquaries of France*, vol. i. page 464. Notes of the *Celtic Academy*. vol. v. pages 54—55.

air with contagious diseases. It devoured the flocks; killed men, and chose young girls, virgins consecrated to the Lord, for its victims; whilst children disappeared engulphed in the abyss of its terrible jaws. The *Bailla,* a figure of a dragon that was paraded at Rheims every Easter day, had probably this origin. The gilded dragon that figured in the processions of the Rogation, in the parish of St. James of Douai, was the emblem of the demon that had devoured the corn in the ear, and destroyed the harvest to punish the cultivators of it for having refused to pay the tithes.*

At Provence until 1761—in the parishes of Notre Dame and St. Quiriace, there was carried in the former in the processions of the Rogation, a winged dragon, and in the latter a monster termed a lizard, two animals which had formerly desolated the town and its environs.† St. Florence went, we are told, by the command of God, to establish himself in a grotto or cavern situated on the left bank of the Loire, and to expel from it serpents with which it was filled. Soon afterwards he delivered the inhabitants of *Mur,* now Saumur, from an enormous serpent, which devoured men and animals, and hid itself in a wood upon the banks of the Vienne.‡

At Tonnerre, the holy Abbot Johan overcame a basilisk which infected the waters of a fountain.‖ The *Vivre* of Larré, to which a Burgundian proverb likened any woman accused of beshrewing,§ was a serpent hidden near a fountain in the vicinity of a Priory of the order of St. Benoit, and long an object

* Bottin. *Traditions des Dragons volants,* etc. pages 157 and 160—161.

† Ch. Opoix. *Histoire et Description des Provins.* pp. 435, 436.

‡ J. J. Bodin. *Recherches historiques sur Saumur et le Haut-Anjou.* tome I. pages 117—122.

‖ *Greg. Turon. De gloriâ confessor.* cap. LXXXVII.

§ La Monnoye. *Noel borguignon.* 12mo. 1729, pages 399—400.—*Vivre, vouivre* or, *guivre,* viper, serpent. The word *guivre* has still this sense in the heraldic vocabulary.

of public terror. At Aix in Provence, the procession of the Rogations deposits upon a rock, called the Rock of the Dragon, and near a chapel dedicated to St. Andrew, the figure of a dragon, killed by the intercession of this holy apostle.* No less the source of succour than St. Andrew and St. George, St. Victor at Marseilles overcame a monstrous reptile.† St. Theodore trampled a serpent under foot;‡ and St. Second, patron of Asti, is represented on horseback, piercing a dragon with his lance.‖ We might quote many other similar legends without pretending to exhaust the subject. Knowing the common origin of all, and the causes which, since the fifth century, multiplied them in the East, we are far from being astonished at their number; on the contrary, we are surprised that more do not exist.

## § VIII.

### VARIATIONS IN THE CIRCUMSTANCES AND DATES OF THE NARRATIONS; NEW VESTIGES OF THE ASTRONOMICAL LEGEND.

The custom of bearing the image of the serpent in the ceremonies of the Rogations ceased very gradually; and it may be said, this emblem of the *Prince of Darkness* yielded but slowly to the advancement of the light of truth. Several churches in France did not abandon the use of it until the eighteenth century; in 1771, Grosley found it kept up in full force, in all the Catholic churches of the Low Countries.§ During so long a lapse of time

* Fauris Saint-Vincent. *Mémoire sur l'ancienne cité d'Aix.—Magasin encyclopédique*, year 1812. vol. VI. page 287.

† In the Abbey of Saint Victor at Marseilles.

‡ Dorbessan. *Essay upon Sacred Serpents. Historical and Critical Miscellanies*, vol. II. page 138.

‖ Millin. *Travels in Savoy and Piedmont*, vol. I. p. 121.

§ Grosley. *Travels in Holland. Unpublished Works of Grosley.* 3 vols. 8vo. Paris, 1815. vol. III. page 336.

the narrations must necessarily have varied, and, consequently, the explanations of them.

To overcome the Gargouille, the dragon of Rouen, Saint Romans caused himself to be accompanied by a criminal condemned to death, whose pardon was obtained by the miracle of the Saint.

The clergy willingly gave credit to these kind of tales. They augmented their power, by obtaining for the heads of their order the right of pardoning; or at least, as at Rouen, that of giving liberty to prisoners. It was regarded as not granting too much to the memory of a miracle, of which, by the will of God, a condemned criminal became the instrument.

Still more willingly did the vulgar receive this variation of the universal legend; according to them no man could have resolved to undertake so perilous a combat, unless with the fear of some infamous and cruel death before him. In this manner, a criminal condemned to death, robbed St. Radegonde of the honour of having vanquished the *Grand'gueule*, the terrible dragon of Poitiers, which issuing every day from its cavern on the banks of the river Clain, devoured the Virgins of the Lord, the nuns of the convent of St. Croix.* Another doomed man was said to have delivered the parish of Villiers, near Vendôme, from the ravages of a serpent.† A third killed a dragon, or a crocodile, which, hidden beneath the waters of the Rhone, was the scourge of the sailors and the inhabitants of the country.‡ A deserted soldier, in order to obtain his pardon, fought with a dragon that spread terror into the environs of Niort.‖ He triumphed; but lost his life in the struggle.

In discussing the history of this pretended soldier,§ M. Eloi-Johanneau remarks how suspicious it is rendered, by one of the

* *Mémoires de l'Académie celtique*, tome v. pages 52, 53, 55. *Mémoires de la Société des Antiquaires de France.* tome i. page 464—465.

† *Mémoires de l'Académie celtique*, tome iv. page 311.

‡ *Ibid.* tome v. page 111.

‖ *Ibid. ibid.* pages 58, 60, 132, 134.

§ *Ibid. ibid.* pages 59, and 134—135.

names given to him signifying the vanquisher of a *beast*, or a *monster*, and particularly by its date 1589 or 1692, a date much too recent for history not to have recorded the fact. The date assigned by D. Calmet to the appearance of the serpent of Luneville is still more modern. He places it a century from the time in which he wrote.* Of all the variations which popular traditions are subject to, in the course of time, the most common are those which relate to date. For such stories there exist no archives; and it is in the nature of man to be for ever endeavouring to appropriate to himself recollections bequeathed to him by the past. Too long an interval between them and the time present wearies his imagination, unable to fill up the gap; he, therefore, endeavours to narrow it in proportion as the lapse of time may demand. Thus the dragon of Niort has been successively placed in 1589, and in 1692. That of the Grand'gueule of Poitiers, when attributed to a condemned criminal, was placed at so great a distance from the period in which St. Radegonde lived, that in 1280 the apparition of the flying dragon was also attributed to that town.† Although St. Jerome has described the combat of St. Hilary against the serpent of Epidaurus, the caverns and remains of which are still shown to travellers, its defeat has been attributed to himself.‡ The tradition which attributes the destruction of the Tarasque to St. Martha, is modern compared to that which gave the honour to sixteen brave men, eight of whom perished victims to their courage; the others founded the towns of Beaucaire and Tarascon.‖

We might instance several other dates that time has also disarranged and modernised. It is, nevertheless, for a different

* *Journal of Verdun*, June 1751. page 430.

† *Mémoires de l'Académie celtique.* tome v. pages 61, 62.

‡ Pouqueville. *Voyage dans la Grèce.* tome i. pages 24, 25.

‖ *Mémoires de la Société des Antiquaires de France*, tome i. page 423. The foundation of Tarascon (or more properly the establishment of the Marseillaise in this town) appears previous to the war of Cæsar against Pompey.

cause that the death of the heroes of Tarascon and the soldier of Niort deserve to be remembered. In those myths which describe the struggle of the principle of light over the principle of darkness, the former frequently paid for its victory with its life. It is thus related of Osiris, of Bacchus, of Atys, and of Adonis. In the Scandinavian mythology, likewise, at that terrible day when the world is to be destroyed and renewed, the God Thor, after having exterminated the great serpent, engendered by the principle of evil, is to perish himself, stifled by the venomous breath emitted by the monster. We are not astonished at finding another vestige of the solar legend, or in seeing several vanquishers of enormous serpents falling in the midst of their triumphs, or unable to survive them.

Ancient Greece offers an example of such generous devotion. The town of Thespia, by the command of a miracle, offered every year a youth to a homicidal dragon. Cleostrates was destined by fate for this horrible sacrifice. His friend, Menestrates, took his place; and clothed in a cuirass, each scale of which bore a hook with the point turned uppermost, he delivered himself to the monster whose death he caused, although he himself perished.*

Towards the end of the fifteenth century, or according to a more ancient tradition in 1273, (for here the date is varied that it may be brought nearer to our times), the mountains of Neufchatel were ravaged by a serpent, the recollection of which is still maintained by the names of several places in the environs of the village of Sulpy † Raymond of Sulpy, fought with the monster, killed it, and died two days afterwards.

Such was also the fate of Belzunce who delivered Bayonne

* Pausanias. *Boœtica*, cap. xxvi.

† *Roche à la Vuivra; Combe à la Vuivra, Fontaine à la Vuivra (vivra vivre, guivre, serpent.) Description des Montagnes de Neufchâtel*, Neufchâtel, 1776, 12mo. p. 34—37.

from a dragon with several heads; he perished, suffocated by the flames and smoke vomited by the monster.*

Patriotism celebrates with enthusiasm the name of Arnold Strouthan of Winkelried who, at the battle of Sampach, in 1386, devoted himself for the safety of his countrymen. The name of one of his ancestors has a less authentic but not less popular title to immortality. Upon the banks of the river Meleh, near Alpenach, in the Canton of Underwald there appeared, in 1250, a dragon, the cave of which is still shown. Struth de Winkelried condemned to banishment for having fought a duel, determined to regain the right of re-entering his country by delivering it from this scourge; he succeeded, but died of his wounds the day after his victory.† Petermann Eterlin (who in truth wrote two hundred and fifty years later),‡ has recorded this fact in his chronicles. The hand of the artist has sketched it upon the walls of a chapel near the scene of the encounter; the place has preserved the name of the *Marsh of the Dragon* (Drakenried); and the cavern that of the Dragon's Hole (Drakenlok.) These commemorative names and those of the same kind, existing near Sulpy, indicate, perhaps, like that of the *Rock of the Dragon,* at Aix, the places where the procession of Rogations stopped, and where the image of the allegorical dragon was momentarily deposited.‖ Perhaps, they may also have related, as we have already suspected, to the course of some devastating torrent.

* *Mercure de France,* March 29th, 1817. p. 585.

† *Le Conservateur Suisse,* 7 vols. 12mo. Lausanne. 1813—1815. tome VI. p. 440—441. Mayer. *Travels in Switzerland,* vol. I. p. 251, seems to attribute this adventure to Arnold of Winkelried, and places the dragon's cavern near Stanz.

‡ W. Coxe. *Letters upon Switzerland,* vol. I. p. 160.

‖ The mountain nearest to Cologne, is called Rocks of the Dragons. *Mémoires de la Société des Antiquaires de France,* tome II, pp. 139, 140.

## § IX.

THIS LEGEND HAS BEEN APPLIED TO CELEBRATED PERSONAGES: AND HISTORY HAS BEEN ALTERED THAT IT MIGHT SEEM TO RELATE THE EVENTS.

Eterlin, the biographer of Struth of Winkelried, has transferred to William Tell the adventure of the apple*, which Saxo Grammaticus, who wrote more than a century before the birth of Tell, had already related of a Danish archer named Toko;† an adventure borrowed, with precisely the same circumstances, from a still more ancient tradition of Egil, father of the clever smith Wailland, and himself an expert archer.‡ Eterlin seems to have taken pains to impress, with an historical character, the religious myths and fables imported from other countries into his own. He wrote down all popular beliefs; and nothing is more usual with the vulgar than to apply the histories and fables, composing their documents, to personages well known to them. Winkelried and Tell, are to the Swiss peasants, what Alexander was and still is in the East. To the name of the King of Macedonia, the Asiatics attached a thousand recollections, some of them anterior to his existence, and evidently borrowed from mythology. The traditions of a devastating dragon over which Alexander triumphed,

* W. Coxe. *Letters on Switzerland*, vol. I. p. 160. See a writing, entitled: *William Tell, a Danish Fable, by Uriel Freudenberger*, a work published at Berne, in 1760, by Haller, jun. 1 vol. 8vo.—Uriel Freudenberger, Pastor of Glarisse, Canton of Berne, died in 1768.

† *Saxo Gramm. Hist. Danic.* lib. x. folio. Francofurti, 1576. pp. 166—168. Saxo died in 1204. Harold who plays in history the same part as Gessler, fell beneath the blows of Toko in 981. The fable of the apple being much more ancient, it was renewed by the public hatred, under the name of Harold, as it has since been reproduced in Switzerland, under the odious name of Gessler.

‡ *Mémoires de la Société des Antiquaires de France*, tome v. p. 229.

was, in the twelfth century, still preserved in an island of Western Africa.* The Paladine Roland enjoyed the same honour in the West; and this is still attested by the names of several places.† Ariosto, when singing of Roland, the vanquisher of the Orca, a sea monster about to devour a young girl,‡ probably did no more than copy and embellish a tradition of preceding ages, as in a thousand other passages of his poem.

An individual whose existence and fame are in no respect fabulous has, nevertheless, become like Roland, the hero of a fable which renders him a rival of Hercules and Perseus. The importance which the remembrance of him had acquired in a country which was so long his abode, has doubtlessly gained this honour for him. Petrarch was following Laura in the chase: they arrived near a cavern where a dragon, the terror of the country, was concealed. Less ravenous than amorous the dragon pursued Laura. Petrarch flew to the assistance of his mistress; fought with, and stabbed the monster. The sovereign pontif, however, would not allow the picture of the triumph of love to be placed in any sacred building. Simon of Sienna, the friend of the poet, evaded this prohibition, by painting this adventure under the portal of the church of Notre Dame du Don, at Avignon. Laura is depicted in the attitude of a suppliant virgin; and Petrarch, in the costume of St. George, armed with a poignard instead of a lance. Time, though it has lowered the estimation in which this work was held, has not weakened the tradition, which it perpetuates, and which has been repeated to me as a real historical fact.‖

In the examination of traditions, sufficient attention has not always been paid to that inclination which induces the ignorant man to find in everything, the myths occupying the first place in

* L'île de Mostachiin, *Géographie d'Edrisi*, tome I. pp. 198—200.

† La *Baume Roland*, near Marseilles; la *Brêche Roland*, in the Pyrenees; il *C.... d'Orlando*, three miles from Rimini, &c.

‡ *Orlando Furioso*. canto XI.

‖ In 1813. I observed that in recitals concerning Laura at Avignon or at Vaucluse, she is always respectfully called *Madame Laura*.

his belief. To arrive at such a result, he perverts his recollections, either by attributing to some individual events that have never happened to him; or, by introducing into history, the incredible parts of a fable. The story in which Petrarch figures, is an example of the first kind of alteration; we shall find one of the second kind, without diverging from our subject.

A Swedish Prince* had nurtured up near his daughter, named Thora, two serpents to be the guardians of her virginity. Grown to an immense size, these monsters spread terror and death around them, chiefly by their pestilential breath. The King, in despair, promised the hand of his daughter to the hero who should kill the serpents. Regner-Lodbrog, a Prince, a Scald, and a warrior, achieved this perilous adventure, and became the husband of the beautiful Thora. That is the fable:—but, according to the Ragnara-Lodbrog's-Saga,† the history is as follows. It was not to two serpents, but to one of his vassals, the possessor of a strong castle, that the King had confided the charge of his daughter; the guardian becoming enamoured of the Princess, refused to restore her; and the King, after vain attempts to compel him, promised that Thora should espouse her liberator. Regner-Lodbrog was this happy individual.

In an incursion upon the coasts of Northumberland, however, Regner was conquered, made a prisoner, and thrown into a subterranean dungeon filled with serpents, their bites proved fatal. This is said to have occurred about the year 866. The story is related by every historian,‡ perpetuated also in the Dirge which has been attributed to Regner himself. I nevertheless suspect that, in the nature of his punishment, an attempt was

* *Saxo. Grammat. Hist. Dan.* lib. IX, p. 153. *Olaus Magnus Hist. sept. gentium. Brev.* lib. V, cap. XVII.

† Quoted in the work of Biorner, entitled: *Koempedater* (Stockholm, 1737) and by Graberg of Hemsôe. *Saggio istorico Sugli caldi*, 8vo. Pisa, 1811, p. 217.

‡ *Saxo Grammat. Hist. Dan.* lib. IX. p. 159.—*Olaus Magnus*, loc. cit.—*Ragnara-Lodbrog's-Saga.*

made to connect it with the legend of which this hero was already the object. The same spirit which had altered the history of his hymeneals, so as to recal or emblemize the struggle in which the principle of good triumphed over the principle of evil, intended perhaps that his tragical end should also recal the death suffered by the principle of good in the allegorical combats. The name of the vanquisher, *Regna Hella*, favours this supposition; the Scandinavians can discern in it the name of Héla, goddess of death, like the *great serpent*, the offspring of the principle of evil. What sanctions my conjecture, is the great importance accorded in Scandinavian mythology to the *great serpent;* it is never described as perishing, except it draws after it, into annihilation, the god with whom it fought. In this manner, serpents and dragons reappear more than once in the Scandinavian annals. I find that, both before and after Regner, the general myth is interwoven, in two several places, into the individual history. Frotho I. ninth King of Denmark,* requiring money to pay his soldiers, attacked, in a desert isle, a dragon, the guardian of a treasure, and killed it at the very entrance of its cavern. Harold,† exiled from Norway, took refuge in Byzance. Having been guilty of homicide, he was exposed to the fury of a monstrous dragon. More fortunate than Regner, he overcame it, and returned to occupy the throne of Norway, and to annoy the nephew of Canute the Great, who was then seated upon the throne of Denmark.

* 761 years before J. C.—*Saxo Grammat. Hist. Dan.* lib. II. pp. 18, 19.

† In the 11th century.—*Saxo Grammat. Hist. Dan.* lib. XI. pp. 185, 186. I translate the word *antrum* into *cavern*. The ditch in which Regner Lodbrog perished, seems to me to correspond with the caverns of almost all the legends quoted.

## § X.

### PHYSICAL OBJECTS AND MONUMENTS, IN WHICH THE VULGAR FIND AGAIN THE PICTURE OF THE DESTRUCTION OF A MONSTROUS SERPENT.

That which daily strikes the senses has an influence upon the belief of uneducated men, at least as much as the recollections which are engraved on the memory; physical objects, paintings, and sculpture, like history, aid the imagination to discover every where legends that favour credulity.

In the Abbey of St. Victor, at Marseilles, in the Hospital of Lyons,* and in a church at Ragusa, the skin of a crocodile is shown to travellers. It is pointed out as the skin of a monster, the hero of legends, belonging to these different places; and, nevertheless, at Ragusa, for example, it is not unknown that it is a skin which was brought from Egypt by Ragusan sailors.† These kind of relics, intended for keeping up and confirming faith, when they do not originate it, have never appeared misplaced in our temples, into which, probably, they were first introduced in the quality of votive offerings. This was the opinion passed by Millin‡ upon the skin of a cayman,‖ suspended from the roof of a church at Cimiers, in the province of Nice. It did not appear that any history was attached to it; whether it was from the lapse of time the legend has fallen into oblivion,

* *Mémoires de l'Académie celtique*, vol. v. p. 111.

† Pouqueville. *Voyage dans la Grèce*, tome i. pp. 24, 25.

‡ Millin. *Voyage en Savoie, en Piémont, à Nices, à Gênes*, tome ii. p. 124.

‖ The Cayman, *Crocodilus Palpebresus* (Cuvier) is a native of Surinam and Guiana. It does not attain to as large a size as the other species of crocodiles; nor will it attack a man either on the land, or in the water as long as he keeps his legs and arms in motion. This species of crocodile has never been found in the old continent; hence it is not found in any of the ancient temples.—Ed.

or that the *ex voto* was too recent to presume to apply any legend to it.

Another monument of this kind, the existence of which however is less certain, is the head of the dragon, which was so miraculously conquered by Dieudonné of Gozon. It was preserved at Rhodes. The Turks, when they became masters of Rhodes, respected it. The traveller Thévenot saw it towards the middle of the 17th century, and the description which he gives of it, would lead it to be regarded as belonging rather to a hippopotamus than to a serpent.* Will it be considered too bold, to think that this head, like the cayman of Cimiers, like the crocodiles of Ragusa, of Lyons, and of Marseilles, was first exposed by public piety or by interest; and that, constantly attracting the observations of the multitude, it furnished an occasion for applying, at a later period, the legend of the hero who conquered the dragon, to a celebrated cavalier, a *Grand Master of the Order?*

At Wasmes, near Mons, on Pentecost Tuesday, and on Trinity Day, the head of a crocodile is carried in procession. In the eyes of a credulous population, it represents the head of the dragon, which in the 12th century, ravaged the environs of Wasmes, and which, when about to devour a young *girl* in his *cavern*, fell under the blows of Gilles, Lord of Chin.† A tradition, carefully preserved in the country, attributes to the father of Chin, who died in 1137, the most striking traits of an exploit, the honour of which, two centuries later, was given to Dieudonné, of Gozon, namely, the difficulty of obtaining permission to combat the dragon, the care with which a figure resembling it was manufactured a long time previously, for the purpose of training the horses and the dogs gradually to attack it fearlessly, and the precaution of being followed by devoted servants

* Thevenot. *Relation d'un Voyage fait au Levant*, &c. p. 223.

† *Recherches Historiques sur Gilles, seigneur de Chin, et le Dragon.* Mons. 1825.—*Revue encyclopédique*, vol. XXVIII, pp. 192, 193.—M. Bottin. *Traditions des Dragons volants* &c. pp. 165

to the place of combat. Here is another example of the facility with which they applied to persons known at one period and in one country, the myths borrowed from another country, and from an anterior epoch.

A direct interest is not always requisite for changing an astronomical myth into local history. There is at Clagenfurt, placed upon a fountain an antique group, found at Saal or Zolfeld, the ancient *Colonia Solvensis*, representing a dragon of a prodigious size, and a Hercules armed with a club. The people believe it to be a poor peasant who had formerly delivered the country from the ravages of a dragon, the image of which they conceive is properly placed by the side of his own.*

Upon a cross, placed in the cemetery of Dommarie, a commune of the department of the Meurthe, (of which the forest of Thorey is a dependance), is sculptured the figure of a winged dragon. Calmet, deceived by this emblem, has related that a winged dragon was formerly the terror of this country.†

The inhabitants of Trebizonde relate, that in 1204, Alexis Comnenes overthrew with his own hands a monstrous dragon. In memory of this exploit, he caused a fountain, which he called the *fountain of the dragon*, to be constructed in the town. This monument remains; the mouth of the pipe whence the water issues, representing the head of the fabulous animal.‡ This figure of the spout has given to the fountain the name which it bears; and, consequently, is the origin of the legend.

Augustus Cæsar, wishing to immortalize the remembrance of his conquest, and the submission of Egypt, gave as a type for the medals of a colony which he had just founded in Gaul, a *crocodile* tied to a *palm-tree*. The town in which the colony settled had

* Ed. Brown. *Narrative of many Voyages.*

† Bottin. *Traditions*, &c. pp. 156, 157. *Journal de Verdun, Juin*, 1751. p. 454.

‡ Prottiers. *Itinéraire de Tiflis à Constantinople*, (Brussels, 1829), p. 206.

for several centuries recognised Nemausus whose name it bore, and who was its founder, as its local divinity; and this name could not fail to figure upon its medals. Very soon, and notwithstanding that the *palm-tree* never grew on the soil of Nismes, (the ancient Nemausus), the *crocodile* became one of those monsters in all the different legends, which stated that the imitators of Hercules, holy men, or those worthy of being regarded as such, had overcome. This terrible animal poisoned the waters of a fountain, and desolated the country. The hero had triumphed over it; and he thus received, and transmitted to the town which he founded near the fountain, the name of Nemausus, which still recals that he alone had performed, *what none had dared to attempt*.*

Here at least, a *real* representation, although badly interpreted, had attracted observation and excused the error. According to a received tradition at Pisa, Nino Orlandi, in 1109, succeeded in confining an enormous and dangerous serpent in an iron cage, and paraded it thus into the middle of the town. How can we doubt of the truth of the fact? A bas-relievo, placed in the *Campo Santo*, represented it; an inscription attested it. Observant eyes have, in our time, examined these two monuments; the inscription was placed in 1777; the bas-relief, a fragment in Paros marble, does not pourtray a single object that can relate to Orlandi's pretended victory.†

* *Nemo Ausus.*—M. l'Abbé Simil. *Mémoires sur la Maison carrée.—Notices sur les travaux de l'Académie du Gard*, of 1812 to 1822. 1st Part. pp. 329, 330.—Eusèbe Salverte. *Essai sur les noms d'Hommes, de Peuples et de Lieux*, tome II. pp. 279, 280.

† See the *Moniteur Universel* of Monday, July 2, 1812.

## § XI.

### COATS-OF-ARMS AND MILITARY ENSIGNS GIVE PLACE TO NEW APPLICATIONS OF THE ASTRONOMICAL LEGEND.

Greedy of glory and of power, it was natural for the nobles and the warriors to wish to share with the demi-gods of paganism, with the favoured of Heaven, the honour of those triumphs which would secure immortal claims on the gratitude of the people. After the Scandinavian heroes, after Struth of Winkelried, Belzunce, and Dieudonné of Gozon, we can refer to a young noble who accompanied St. Pol, when he wished to destroy the dragon of the Isle of Batz;* and also St. Bertrand, the conqueror of the dragon of Comminges; a bishop, who belonged to an illustrious race; for he was the son of a Count of Toulouse.†

We might also quote the pretended origin of the prænomen of the *Nompar* of Caumont. Reviving for themselves the fabulous history of the founder of Nismes, they relate that this prænomen was transmitted to them by one of their ancestors, who, in fact, showed himself *sans pair* (*non par*), in giving death to a monstrous dragon, whose ravages desolated his territory.

But to avoid tedious repetitions, we shall confine ourselves to remarking how much this pretension on the part of the nobles was favoured by the figures with which each of them ornamented his helmet or his shield, and which, from them have passed into coats-of-arms.

*Ubert* was the first who, among the Milanese, fulfilled the functions delegated to the *Counts* (*Comites*) of the Lower-Empire, and of the Empire of Charlemagne. He adopted, in consequence, the surname of *Vice-Count*, which he transmitted

* Cambry, *Voyage dans le département du Finisterre*, tome I. pp. 147, 148.

† *Dictionnaire de Moréri*, art. *Saint-Bertrand*.

to his descendants. At Milan, in that place where the very ancient Church of St. Denis rears itself, there was there a deep cavern, the dwelling of an ever-hungry dragon, whose breath spread death to a great distance. Ubert fought it, and killed it; and he wished its image to figure in the coats-of-arms of the Visconti.* According to Paul Jove, Othon, one of the first Vice-Counts distinguished himself in the army of Godfrey of Bouillon: a Saracen chief, whom he slew in single combat, bore upon his helmet the figure of a serpent devouring an infant; the conqueror placed it in his coat-of-arms, and left to his posterity this monument of his glory.† The recital of Paul Jove, if it is not as true as the other, is at least as probable.

Aymon, Count of Corbeil, bore upon his shield a dragon with two heads. In a street of Corbeil there may be seen a covered drain, which terminates at the river of Etampes: according to popular tradition, this was formerly the den of a dragon with two heads, the terror of the country; the Count Aymon had the honour of conquering it.‡

The family *Dragon* of Ramillies had as its arms, a gold dragon in an azure field. This family traces the origin of its name, and of its *coat-of-arms*, to a victory obtained by *John*, Lord of Ramillies, over a dragon which desolated the neighbouring territory of Escaut; and which the intrepid Baron combatted even in the cavern into which the monster enticed its victims.‖

The lion, being the symbol of strength, generally decorated the tombs of the knights. Upon the tomb of Gouffier of Lascours, a serpent is added to it, as the symbol of prudence. In these representations one may perceive an evident allusion to a

* Carlo Torre. *Ritratto di Milano.* p. 273.

† *Paul. Jov.* in *Vit. duod. Vicecom. mediol. princip.... Præfatio.*

‡ Millin. *Antiquités nationales*, tome II. art. *Saint Spire de Corbeil.*

‖ Bottin, *Traditions*, &c. pp. 164, 165.

marvellous adventure, related by the chronicles, in which this warrior had delivered a lion, from an enormous dragon by which it was pursued. The grateful animal attached himself to his benefactor, and followed him every where, like a faithful dog.* We may observe that this is precisely the adventure that the author of the *Morgante* ascribes to Renaud of Montauban.† But the invention does not belong to him; the same story is found again in the poetical romance of Chrestien of Troyes, entitled the Knight of the Lion.‡

Similar recitals have arisen from similar causes, before the invention of chivalrous emblems and coats-of-arms.

A warrior always desires to present to his adversaries, objects capable of striking them with terror. The serpent is the emblem of a prudent and dangerous enemy; the winged-serpent, or dragon, is the presage of rapid and inevitable destruction. These signs found their place upon the banners, as well as upon the face of the shields, and upon the tops of the helmets. The dragon figured also among the military ensigns of the Assyrians; and Cyrus, the Conqueror of the Assyrians, caused it to be adopted by the Persians and by the Medes.‖ Under the Roman Emperors, and under the Emperors of Byzantium, every *cohort*, or *centurion*, bore a dragon as its ensign.§ Grosley affirms (but without bearing out his assertion by decisive proofs) that the dragons, from being military ensigns, which were the objects of the worship of the Roman soldier, passed into the churches, and figured in the processions of the Rogations, as trophies acquired by the conquests of religion.¶

* N. Dallou. *Monumens des différens Ages observés dans le Département de la Haute-Vienne*, p. 359.

† *Morgante*. Cont. IV. ottav. 7 et seq.

‡ *Manuscr. de la Bibliothéque du Roi*, No. 7535, folio 16 verso, colonne 2.

‖ Georg. Codin. *Curop. de Official. Palat. Constant. . . . . Feriæ quæ in palatio solent, &c.*

§ *Modestus. De Vocabul. Rei. Milit.—Flav. Veget. De Re Militari*, lib. II. cap. 13; *Georg. Codin. Curop.* loc. cit.

¶ Grosley. *Ephémérides*, III^e^, partie, chap. IX, tom. II, pp. 222—225.

We must admit, also, that similar signs have more than once recalled the remembrance of astronomic myths; and, when it is known that in religious ceremonies, the image of the dragon was carried by the side of that of St. George, before the Emperor of Constantinople,† we are tempted to believe, that St. George owes to this custom, the legend which has placed him in the same rank as St. Michael.

*Uther*, the first King of England, the father of the famous King Arthur, imitated in battle the example of the Assyrians and the Persians, and hoisted a dragon, with a golden head, as an ensign. In consequence of this transaction, he received the surname of *Pen-dragon* (Dragon-head), a surname which gave rise to many marvellous recitals. For instance, it is related that he saw in the skies a star which had the form of a fiery dragon, and which foretold his elevation to the throne.‡ The astronomical origin of the primitive legend had not been forgotten.

## § XII.

### ANCIENT MYTHOLOGY ALTERED FOR THE PURPOSE OF FINDING IN IT THE LEGEND OF THE SERPENT.

After having corrupted history; after having mistaken the origin of physical representations; forgotten the signification of monuments; and even having read and seen upon them what had never existed, the desire of discovering every where a myth which had been familiarised, required but one step more:—it only remained to sacrifice objects of ancient credulity, and to disfigure a *preceding* mythology, in order to bend it to the recitals of a *new* mythology. The following is a fact of this

† *Georg. Codin. Curop. De Official. Palat. Cons.* loc. cit. "*Cantata igitur liturgiâ . . . aliud* (Flammeolum) *quod fert* sanctum Georgium *equitem, aliud* draconteum," &c.

‡ Ducange. *Glossar.* verbo. *Draco.*

species, which without being positive, is not devoid of probability. It is attached to a memorial sufficiently famous, to render excusable the details upon which we are forced to enter.

In explaining a medal which appeared to belong to the 15th century, and which, on the reverse of the head of Geoffrey of Lusignan, says, *Geoffrey à la grand'dent*, displayed the head of a fantastic monster. Millin* relates that Geoffrey was invited to combat a monster, which had already devoured an English knight. When prepared to attempt the adventure, Geoffrey died of sickness. The head drawn upon the medal is, he adds, that of the monster, "which Geoffrey would certainly have conquered, had not death prevented him." But a medal would never have been struck out to immortalize what had never occurred: it must then have been, that tradition in the family of Lusignan, to which Millin attributes the manufacture of the medal, and which related that the brave Count, like so many saints and heroes who have passed in review before us, was the vanquisher of the monster.

Let us remember, firstly, that Geoffrey was the son or rather the descendant of the famous Mellusine or Merlusine,† Melesendis, who transformed herself every Saturday into a serpent; secondly, that the Sassenages, who considered Geoffrey of the

* *Voyage au Midi de la France*, tome IV. pages 707, 708; Geoffroy *à la grand'dent*, died about the year 1250.

† I shall not contest with M. Mazet, quoted by Millin (*Voyage au midi de la France*, tome IV. page 706), whether the mother of Geoffrey was entitled Melicendis, Melesindis (Melisende), and that this name may have been confounded with that of *Mellusine*. But far from admitting that it has produced it, it is my opinion that the confusion arose because the name of Mellusine was already celebrated. Still less easily shall I adopt another etymology according to which the lady of *Melle*, bearing this lordship as her dower to the Sieur de Lusignan, the two names united and formed that of *Mellusine*. (*Mémoires de la Société des Antiquaires de France*, tome III. pages 279, 280.) At the commencement of the thirteenth century, women did not join their names to that of their husband's dominions. I do not even think that they

great tooth (à la grand'dent) as among their ancestors, had sculptured upon the exterior door of their castle a figure Mellusine,* that is to say, half woman half serpent.

Merlusine was a benevolent fairy, it seemed, therefore, natural to rank one of her descendants among the number of hero-destroyers of the deadly serpent, and when applying to him the universal and common legend, to ascribe to him a victory perpetuated by the medal, of which an explanation has been attempted by Millin.

But where in the marshes of Poitou, could a being half woman, half serpent, or alternately the one or the other, have originated ?

A tradition, preserved to the present day, informs us that Merlusine transformed herself into a fish, and not into a serpent.† This is the key to the enigma which belongs to a high

commonly bore the name of their own possessions. In pronouncing it Merlusin with Brantome (*Vies des Hommes illustres, etc.* tome, VIII. p. 322) and with the people, more certain guides than the learned upon the pronunciation of names handed down in ancient stories, I draw near to the orthography of the family name of Geoffroy, thus written upon the medal before mentioned, Godefridus de Lusinem. You have only to place mère (mater) before the last word to reproduce the name of Merlusine, and to prove that it was nothing more than the simple title of Mother of the Lusignan (Mère des Lusignan), applied by the people to the woman-serpent, to the fairy from whom this family claimed or adduced their descent. Our etymology is the less probable from the fact that Jean d'Arras, the first author who compiled the history of Merluzine, wrote in the reign of Jean in the fourteenth century, when the family name of the Lusignans had been long fixed and become celebrated.

* Millin. *Magasin Encyclopédique*, 1811. tome VI. pages 108—112.

† *Mémoires de la Société des Antiquaires de France.* tome III. page 320. Scarron was not ignorant of this tradition, for in his third satire he makes a fop declare that he will make,

"The infant Mellusine;
The heroine will be half woman half fish,"

appear on the stage. [Let

antiquity. The image of the mermaid, which the moderns deemed a syren although all the ancient writings and monuments depict the syrens as *bird* and woman,* this image, so common in the time of Horace, that the poet cited it as the type of absurdity.† —this image, that the Greeks applied to Eurynome, one of the wives of the God of the Sea, this image is that under which the Syrians and Phœnicians invoked Astarte, or Atergatis, the Celestial Virgin.‡ It may be found in the Egyptian planisphere, where it represents the sign of the Fishes united to that of the Virgin. It is perpetuated in the religions of

Let us observe the most generally received tradition very nearly approaches this in placing Mellusine in an immense basin, the blows of her tail forced the water up to the vaulted roof of the chamber.—*Bulletin de la Societé d'Agriculture de Poitiers*, 1828. p. 214, 215.

* In a wall of the interior court of the Museum of Paris is incrusted an ancient alto-relievo of white marble, a bird-woman, a syren. Mountfaucon saw similar figures of syrens in red marble in the town of Aldobrandino (Diarium Italicum, 170) p. 190, 191. At Stymphales upon the borders of Argolis and Arcadia, marble statues represent young girls having the legs of birds, (*Pausanias Arcad.* cap. XXII). In the ruins of the ancient temples of the island of Java, several figures of birds having the heads of girls have been discovered, and one was remarked as having the head of an aged man (*Description of Java*, by Marchal, 4to. Brussels, 1824). This proves the antiquity of the myth relative to the syren, but does not indicate the origin of it. Plato assisted, perhaps, by the traditions of ancient India, placed a syren on each of the eight circles of the heavens, who sung whilst following the periodical revolution (*Plat. de Repub.* lib. x.) Menephylle, in Plutarch, rejects this idea, because the syrens, he says, are malevolent genii; but Ammonius justifies Plato.

† Turpiter atrum
Desinit in piscem mulier formosa superne.
*Horat. De Art. Poet.*

‡ According to the scholiast of Germanicus (*Aratæa Phenomena Virgo*), the celestial virgin is identical with Atergatis. Hyginus recognises Venus in the sign Pisces.

Japan* and Hindostan,† and preserved in the ancient mythology of the island of Java.‡

It has even penetrated into Kamtschatka, doubtless with the Lamich religion. In the Iortes (iourtes) of the northern Kamtschatdales one sees the idol, Khan-tai, represented with a human body as far as the chest, the remainder resembling the tail of a fish. A fresh image is fabricated every year, and the number of these point out the number of years the Iourt has been constructed.‖ This peculiarity proves that the idol, Khan-tai, like the mermaid of the Egyptian planisphere, is of an astronomical origin, since it has remained the symbol of the renewal of the year.

We are not able to speak so decidedly of the *Mother of the Water*, a malevolent divinity, half fish, half woman, who, according to the natives of Guiana, delights in attracting the fishermen to the open sea, and then sinking their frail vessels. This fable, it is said, was spread over America before the arrival of the Europeans.§

Could a symbol so frequently reproduced reach Gaul? Could time modify it sufficiently to have changed the extremity of a fish into that of a serpent?

1. To the first question I answer, that this symbol still exists in one of the most ancient towns of France, namely, at Marseilles. Upon an angle of the Fort St. John can be distinguished the gigantic figure of a monster, half-woman, half-fish. If it has been thus reproduced in the construction of Fort St. John, it was most probably because it existed long before as a national monument. Its name, the same as that of the town, Marseilles,

* Canon, *Japanese Divinity.*

† *Third Avater of Vishnu.*

‡ *Description of Java.*

‖ Krachéninnikow. *Description of Kamtschatka*, first part, chap. IV.

§ Barbé Marbois. *Journal d'un déporté*, tome II. p. 134.

indicates that it represented the local divinity, the town itself deified. The Phoceans, in adopting a symbol so suitable for characterizing a large maritime city, would not have had occasion to borrow from Tyre, Sidon, or Carthage. They had founded their colony under the auspices of the Great Diana of Ephesus, the heavenly virgin who was adored in this form not only in Asia, but even in Greece, for the statue, half woman, half fish, honoured at Phigalia, was frequently regarded as a statue of Diana.*

2. Almost all the Tartar Princes trace their genealogy to a celestial virgin, impregnated by a sunbeam or some equally marvellous means.† In other language, the mythology which serves as the starting point of their annals, belongs to the age in which the sign of the Virgin was used for denoting the summer solstice.

The Greeks deduced the origin of the Scythians from a virgin, half-woman, half-serpent, who had intercourse with Jupiter or Hercules,‡ both emblems of the generating sun. If, as it is allowable to suppose, the two origins are synonymous, the Greeks, in the image of the national divinity of the Celestial Virgin, from whom the Scythians and Tartars pretended to derive their descent, will have mistaken or not recognized the form of the lower part, but in place of the extremity of a fish have seen that of a serpent.

* Pausanias. *Arcad.* cap. XLI. A priestess of Diana, at Ephesus, had followed the Phoceans to Marseilles, bearing with her a statue of the Divinity, and these latter instituted the worship of Diana as they had received it from their ancestors, in every town they founded in Gaul, as, for instance, at Agde. *Strabo*, lib. IV.

† Eulogium of Moukden, pp. 13 and 221—225. Alankava, or Alancoüa, a Mongol Princess, experienced three times successively that a celestial light had penetrated her bosom, and she confidently announced that she should bring forth to the world three male children. Her prediction was verified. Of her three sons, called children of the light, one became the father of the Kap-Giaks Tartars, another the ancestor of the Selgink, or Selgionkides, and from the third Genghis and Tamerlane were descended. Petis de la Croix, *History of Genghis Khan*, pp. 11—13; Dherbelot, *Biblioth. Orientale.* art. *Alankava.*

‡ *Herodot.* lib. IV. cap. IX.—*Diod. Sic.* lib. II. cap. XX.

Now, in order to fix upon the banks of the Sevre both the ancient symbol and the alteration by which it has been disfigured, I need not refer to the Druids, who honoured a virgin who was to bring forth children—the Celestial Virgin, who every year shining in the highest heavens, should at midnight restore to the earth the child-god, the sun, born of the winter solstice. It does not appear that the Druids ever offered physical representations to the veneration of our ancestors, or at least, not until the times when communication with other nations induced them, by degrees, to imitate their idolatry. But Pytheas, who had coasted along the western shores of Gaul, could not assuredly have been the only one among the Marseillaise navigators;* nor could the Phœnicians and Carthagenians, in their researches after tin in the Cassiterides islands, have omitted landing upon the coasts of Brittany and Poictiers. One of these nations may have brought the worship of the mermaid into Western Gaul; for under the name of Onvana or Anvana, the Gauls adored a figure of a woman, having the tail of a fish.† A Gallic chief, as jealous as the Tartars of ascribing to himself a supernatural origin, may have pretended to have been descended from this divinity, and would therefore select the image as his distinctive emblem. The progress of Christianity would have the effect of making the goddess regarded as a woman only, yet endowed like a fairy with supernatural powers, but not of abolishing her memory or effacing her image. Time and the imperfection of sculpture would, rather later, occa-

* The Marseillaise established the worship of Diana of Ephesus in every town they founded. *Strabo*, lib. IV.

† Martin. *Religion of the Gauls*, vol. II. p. 110.—Toland. *History of the Druids*, p. 137.—Amongst the descriptions discovered upon the ancient wall at Bordeaux, the following was remarked:

"*Caius Julius Florus* ONVAVÆ."

(*Mémoire de l'Académie de Bordeaux*. Meeting of 16th June, 1829, p. 182, and Shelf 3, No. 52.) I think *onvavæ* is the dative of the same noun as *onvana*; either the inscription may have been copied incorrectly, or the workman may have made a mistake in transcribing a strange name.

sion an error similar to that which the Greeks had already committed; the tail of a fish would pass for the extremity of a serpent. Founded upon this mistake, the new tradition would prevail with greater ease, because, as we have already seen, from the 5th to the 15th century, serpents held a prominent part in the popular superstitions of the West; and thus the form given to Merlusine, and the exploit attributed to her descendant, would be the consequences of the sacrifice of an ancient belief to one more recently and generally adopted.

## § XIII.

### RECAPITULATION, OR SUMMARY.

The discussion of this conjecture, which we submit to the decision of archæologists, has not caused us to diverge from our subject. We had proposed seeing how a narration, evidently absurd, false, and impossible, could be spread, and multiplying itself under a thousand different forms, universally meet with an equal and constant credulity.

Metaphorical expressions of real facts may sometimes have given rise to it; but not have the effect of sending it beyond the narrow circle where the one was observed and the other put in practice.

An accident, as local and variable as the overflowing of a river, could not have been universally represented by the same allegory which elsewhere could be but very imperfectly applied.

The pretended fact is, in its origin, nothing more than the representation of an astronomical picture, adopted by the greater part of the mythologies of antiquity. When the tradition of this dogma of polytheism ceded to the progress of Christianity, an outward ceremony, perpetuated in this religion, created as many repetitions of the original myth as the Western church could number congregations of the faithful. In vain they attempted to draw

the attention of the vulgar to the allegory expressed by the ceremony, their minds and looks remained fixed on the physical representation. Their habits getting the better of their piety, they looked not for their deliveries among the inhabitants of the heavens alone, but recognized them among men, particularly when conformable with a point of the astronomical allegory, the victor was supposed to have lost his life in the bosom of victory. The names of celebrated personages, those of nobles whose power had been feared, or courage admired, were unceasingly reproduced. Historical remains were falsified for this end, every physical representation which might recal it, renewed the recital; and it was sought out among emblems and monuments utterly foreign to it, and even in signs invented by glory or military pride. They even went so far (if our last conjecture is not too rash) as to alter the symbols and beliefs of a mythology prior to it, in order to appropriate them to it. Singular progress of an incredulity, not only blind and easy, but greedy and insatiable. Does it not merit being signalized by the meditations of a philosopher? The history of credulity is the most extensive branch, and certainly one of the most important in the moral history of the human race.

## ON THE STATUE OF MEMNON.

Notices and Inscriptions attesting the Vocal Property of the Statue; some of them mention even the particular words pronounced—Explanations pronounced—Explanations proposed by various Authors, but little conclusive—According to Langlès the sounds occasionally uttered by the Statue correspond to the Seven Vowels, emblematical of the Seven Planets—The Oracle delivered by the Statue of Memnon—Refutation of the System of M. Letronne—The apparent Miracles, most probably the result of chicanery—The impossibility of arriving at a satisfactory solution of the Problem.

In the vicinity of ancient Thebes stood two colossal figures, each consisting of a single stone, the secret enclosure of which bore the name of Memnonia. This word, employed in the Egyptian language to signify "a place sacred to the memory of the dead,* suggested to the memory of the Greeks, one of their heroes, celebrated by Homer. With a vanity, ever ready to appropriate and attach to their own traditions, whatever might be borrowed from the mythology or the history of a people more ancient than themselves, they regarded one of these colossal figures as consecrated to Memnon, and representing the son of Aurora, a warrior who fell in the Trojan war, invested at an earlier period than

* M. Letronne. *La Statue Vocale de Memnon*, 1 vol. 4to. We shall have occasion, more than once, to quote this erudite work, though we do not adopt the system it advocates.

the remotest date of Grecian history. This was the statue famed for the peculiarity of emitting, on the rising of the sun, sounds which, to the enthusiast, appeared to convey a salutation addressed to Aurora or to the sun.*

The upper part of the statue was broken at a period not correctly ascertained; but the miraculous sounds continued to be heard, appearing to arise from the lower part. M. Letronne believes the colossus to have been restored in the third century of our era; large masses of grey stone being substituted for that part of the original monolithe, the fragments of which covered the ground.

When Juvenal saw this colossus, in the reign of Adrian, it was broken; Lucian, under Marcus Aurelius, and Philostratus under Severus, describe it as entire. It is true, that Lucian mentions it in a satirical work; but his raillery is directed against the exaggeration of a witness to the assumed miracle; and does not refer to the statue, whether in its mutilated or restored condition. Philostratus, by a palpable anachronism, causes a contemporary of Domitian to speak of it. This licence, which could not be the effect of ignorance, tends to prove that the restoration was not recent; for no one could place an event which had just taken place in a past century.

The witnesses who attested the vocal nature of the statue, cease with the reign of Caracalla. We are ignorant at what period, and by what means the restored statue was again broken, and equally so as to the time at which its lower part, long silent, ceased to reveal its ancient glory, except by the inscriptions by which it is covered.

Before discussing the various explanations which have been offered of this apparent prodigy, let us call to mind what has been said regarding it by the Greeks and Romans, the only people from whom we derive direct testimony.

* The sound was said to resemble the snapping asunder of a musical string, when the first beam of the morning sun fell upon it.—Ed.

The Egyptians accused Cambyses of having broken and overturned the statue of Memnon, with the same impious fury that led him to insult or to destroy, other sacred monuments* in the land of Osiris. Their well-founded detestation for the memory of a barbarous conqueror, induced them to impute to him the result of a natural catastrophe, if it be true, as related by Strabo, that the fall of the Colossus was occasioned by an earthquake, the date of which is given by this writer.

But, for what reason, it may be asked, did Cambyses limit the work of destruction to one of these sacred images? This inquiry, which, at first sight, appears to weaken the generally received tradition, tends, on the contrary, to strengthen it, if we admit that the miraculous sound proceeding from this image only, made it the marked object of religious veneration to the natives, while it attracted to it the fanatic hatred of the fire-worshippers.

Manethon, as quoted by Eusebius, by Josephus, and also by St. Jerome, affirms that the colossal statue of Amenophis, was identical with the vocal statue of Memnon. Had not its authority been contested, the testimony, given by Ptolemy Philadelphus, an Egyptian priest, of great research into the antiquities of his country, would be of much importance.

Dionysius, Periegites,† describes in verse "the ancient Thebes where the sonorous Memnon hails the rising of Aurora." It is generally supposed that the poetical geographer wrote shortly after Egypt had been reduced to the condition of a Roman province; from which it would follow, that the miracle, as well as the fabulous tradition connected with it by the Greeks and Romans, was at that time, and had long been, known and

* *Justin.* lib. I. cap. IX.

† *Dionys. Perieger.* vers. 249, 250. This Dionysius was a writer of the Augustan age. He singularly enough wrote a geographical Treatise in Greek hexameters; consequently he occasionally sacrifices truth to his poetical imaginings.—Ed.

celebrated. But the critic is left at liberty to fix the epoch at which Dionysius flourished: in the reign of Augustus, of Severus, or of Caracalla.

In speaking of Memnon, "There were," says Strabo, "two colossal statues, each composed of a single stone, and standing near one another. One of them remains entire. It is said that the upper part of the other was overturned by an earthquake; and it is also believed, that a sound resembling that produced by a slight blow proceeds from the base, and from that part of the colossus resting on it. I myself, in company with Aelius Gallus, and a number of his soldiers, heard it towards the dawn of day. But whether in reality it proceeded from the base, or the colossus, or was produced by connivance, I cannot decide. In uncertainty of the real cause, it is better to believe anything, than to admit that a sound can issue from stones similarly disposed."*

During his travels in Egypt, Germanicus was struck with admiration at the stone image of Memnon, which, as soon as the rays of the sun fell upon it, emitted a sound resembling that of a human voice (vocalem sonum). It is thus that Tacitus expresses himself, an historian so much the more worthy of credit, that he had, in his youth, learned various important details respecting Germanicus, from several old men, contemporaries of that Prince.†

"At Thebes," says Pliny, "in the Temple of Serapis, stands the image said to be consecrated to Memnon, which daily is heard to emit a sound, when the first rays of the sun fall upon it."‡

Juvenal, who resided in, or was banished to upper Egypt, not far from the district which owes its fame to the monuments

* *Strabo*, lib. XVII.

† Tacit. *Annal*, lib. II. cap. LXI. et lib. III. cap. XVI.

‡ Plin. *Hist. Nat.* lib. XXXVI. cap. VII. N. Dion Chrysostome (*Orat.* XXXI.) speaks of the statue of Memnon as of the image of a divinity.

Memnonium, notices the statue in these words: "There," said he, "the magic chords of the mutilated Memnon, may be heard."*

"I admired this colossus much," says Pausanias.† "It is a sitting statue, which appears to represent the sun; many people call it the statue of Memnon, but the Thebans deny this. It was destroyed (literally broken in two) by Cambyses. At the present day, the upper part, from the crown of the head, to the middle of the body, lies neglected on the ground. The other part still remains in a sitting posture; and, every day at sunrise, it gives out a sound, resembling that produced by the strings of a guitar, or of a lyre, when they break at the instant they are screwed up."

From the times of Lucian, the fame of this colossus attracted the curious into Egypt. In the dialogue upon friendship, (*Toxaris*), it is related by Lucian, that "the philosopher, Demetrius, travelled into Egypt, in order to see Memnon having heard that the statue caused its voice to be heard at the rising of the sun, (βοᾶν) I set out for Coptos," he causes Eucrate to say, in the Philopseude, "to see Memnon, and to hear the miraculous sound which issues from it at day-dawn. I did hear it, and not like many others, producing an uncertain sound: Memnon himself, opening his mouth, addressed to me an oracle in seven lines, which, were it not superfluous, I would repeat to you."

Philostratus says, that "the statue of Memnon, which is turned towards the east, is heard to speak, as soon as a ray of the sun falls upon its mouth."‡

At a period when this assumed miracle had undoubtedly ceased, Himerius, a contemporary of Ammienus Marcellinus, again asserted that the colossus spoke to the sun with a human

* Juvenal. *Sat.* xv. verse 5.

† Pausanias. *Attic.* cap. xlii.

‡ Philostrat. *De Vit. Apollon.* lib. vi. cap. vi.

voice.* But on consideration of the dates, we find that his testimony, as well as that of Calistratus,† merely attest the existence of a tradition, which these authors notice without further discussion.

Two unedited works of Juvenal, and the erudite Eustathius, inform us of the modifications that the tradition had undergone in subsequent times.

According to the first‡ "the statue of Memnon, the son of Aurora, was so contrived, by a mechanical artifice, that it addressed a greeting both to the sun and to the King, with a voice apparently human. In order to ascertain the source of the apparent miracle, Cambyses caused the statue to be cut in two: after which it continued to salute the sun, but addressed the King no longer. Thence, the poet has adopted the epithet Dimidio (of which there remained only the half.)"

The other scholiast strangely alters the generally received tradition.‖ It says "that a statue in brass, representing Memnon, and holding a guitar, was heard to sing at particular hours of the day. Cambyses caused it to be opened, on the supposition that mechanism was concealed within the statue. But notwithstanding its mutilation, the statue having received a magical consecration, still produced the same sounds at the customary hours. It is on this account that Juvenal applies to Memnon the epithet *Dimidius*, open, or divided into two parts."

In commenting on verses 249, 250, of Dionysius Periegites, Eustathius notices first, that the colossus represented the Day, the son of Aurora. "It was," he adds, "the statue of a man, from which by means of a particular mechanism, a voice appeared to issue and seemed to salute the day, and to render it homage from an inward spontaneous emotion.

* Himerius. *Orat.* VIII et XVI.—*Photii, Bibl. cod.* 243.

† Callistrat. *Exercit. de Memnon.*

‡ Scholiaste inédit de Juvenal, cité par Vandale, Casselius et Douza.

‖ Scholiaste inédit cité par Vandale.

Numerous Greek and Latin inscriptions engraved upon the colossus testify that various persons, attracted by motives of religion or curiosity, had heard the miraculous voice. Monsieur Letronne* made a collection of them to the number of seventy-two, and has restored and explained them. In preserving his enumeration I shall quote such of them only as seem to throw some new light on my subject.

Six inscriptions (Nos. x, xii, xvii, xx, xxxvi, and xxxvii,) affirm that it had spoken to the sun twice on the same day. Another, No. xix, that the voice had been heard three times in the presence of the Emperor Adrian, who looked on this miracle as a pledge of the favour of the Gods.

The author of the xviith, asserts that Memnon spoke to him, addressing him in a friendly manner.

The following according to Jablonski† and several other learned men, is the translation of the xiith inscription.

"Memnon, the son of Tithon and Aurora, up to this date, had merely permitted us to hear his voice; to-day he greeted us as his allies and friends. I caught the meaning of the words as they issued from the stone. They were inspired by nature, the creator of all things." M. Letronne thinks, that for this last phrase, the following should be substituted: "Did nature, the creator of all things, inspire this stone with a voice and understanding?" Without entering into a discussion on these words we may observe that in reality, the correction is of less importance than at first sight it appears to be.

The marked distinction between the unnecessary sound which generally issued from the statue, and the particular friendly salutation, appears to me to prove that the authors, both of this inscription and of the xviith have heard distinct words, which they entirely believe to proceed from the sacred stone.

* *La statue vocale de Memnon*, &c.

† Jablonski.

On comparing these various testimonies, we find that, towards the dawn of day, a sound similar to that produced by a lute, or copper instrument, usually proceeded from the statue (inscr. XIX). This apparent miracle was repeated two and even three times in a day; at last increasing in proportion to the credulity of the witnesses, the statue arrived at the pronunciation of consecutive words, and the delivery of complete sentences.

This last prodigy calls to remembrance the inscriptions and traditions preserved by Homer and Philostratus and in the Philopseude of Lucian, and is apparently the least admissable of any; yet I believe it to be the most easily explained.

It was not exclusively confined to Memnon: at Daphne, near Antioch, stood the temple of Apollo, where at noonday the image of that God was heard to chaunt a melodious hymn to the admiration of his worshippers.*

If the reader bears in mind what has been already said (c. XII.), concerning the vocal statues celebrated by Pindar, the speaking heads, the uses of ventriloquism, and the advantages derived from the science of acoustics, by the Thaumaturgists, the impossibility of the account disappears; all depends on the choice of the moment and the absence of inconvenient spectators. We may even conclude, that while believing that he repeated an absurd falsehood, Lucian has related a real fact, an apparent miracle, that under advantageous circumstances, might again be performed in the presence of enthusiasts, who are generally as incapable of penetrating an artifice, as of conceiving a doubt or raising an objection.

It is not impossible even that we may recover the oracle in seven lines, heard by Philopseude, which he regarded as an inspiration of "Nature the creator of all things!" The following oracle composed of a similar number of lines, and transmitted to us by Eusebius,† appears to answer this question.

* Libanius. *Monodia super Daphn. Apollin.*

† Euseb. *Præpar. Evangel.* lib. IV.

"Invoke Mercury; the Sun and in the same manner
The day of the Sun; and the Moon when her day
Arrives; and Saturn's; and Venus' in her turn;
By means of the ineffable invocations, discovered by the most skilful of the Magi.*
King of the *seven times resounding*, known to a great number of men;
* * * *
And invoke always, much, and in secret, the Gods of the sevenfold voice."

The text itself indicates that a verse is wanting, as may be concluded by the omission of the names of Mars and of Jupiter; this verse was the first, the third, or the fourth, rather than the sixth, completing the oracle, both as to the sense and the number of lines. Having no meaning in the position of the sixth, where it was placed by the inadvertence of a copyist, it would have been totally omitted at a later period.

The oracle prescribes the addressing of invocations to planets, as well as the observations of days particularly consecrated to each. Notwithstanding the loss of the line, it is very clear that the invocations must have been seven in number, in accordance with the days of the week, and the number of the planets. He who instituted this form of worship, was the King (director) of the *seven times resounding*, a name which appears to indicate a machine or statue, capable of producing seven intonations. It is subsequently commanded to address continual invocations to the God of the *sevenfold voice*. Compared with the title, *seven times resounding*, it appears that this was the God to whom the machine was consecrated, or of whom the statue was the image; even the sun, recognized by the ancients as the King of the celestial world. The statue of Memnon was that of the sun, according to Pausanias.

* This expression does not specify Zoroaster. The Greeks have frequently given the title of Magi, to the Chaldean and even to the Egyptian priest; they signified by it, a person consecrated to a particular Goddess, inspired by her, and superior to other men, in science and wisdom.

Other observations concur to support our conjecture.

In the earlier ages of Christianity, a religious signification was attached to the seven vowels. Eusebius observes, that by a wonderful mystery, the ineffable name of God, in the four grammatical modifications to which it submits, comprehends the seven vowels.* This religious signification serves also to explain an inscription composed of seven lines, each of which presents the seven Greek vowels, under a different combination.† Gruter and his editor regard the inscription as apocryphal; but Edward Holten has seen the seven vowels sculptured on a stone in a similar arrangement.‡ "All the mystery which they contain," says he, "consists in the name of Jehovah, composed of seven letters, and seven times repeated." With sufficient plausibility, he attributes inscriptions of this nature to the Basilidians, who, like many other sectarians in the earlier ages of the church, were only Theurgists, who grafted on Christianity the rites and superstitious initiations of a more ancient religion.

From Egypt was borrowed, among others, this superstition relative to vowels. The Egyptian priests chanted the seven vowels as a hymn addressed to Serapis.‖ In an inscription preserved by Eusebius,§ Serapis declares to his worshippers: "The seven vowels glorify me, the great and immortal God, the unwearied Father of all things." Is it necessary to call to mind,

* *Præp. Evangel.* lib. VI. cap. VI.

† Jan. Gruter. *Corp. inscript.* tome II. p. 21.

‡ *Ibid*, p. 346.

‖ Dionys. *Halicarn.*

§ Euseb. *Præp. Evangel.*—Scaliger, *Animadvers. Euseb.* no. 1730. Let us observe, that the vowels were retained, to a comparatively late period, in the mystic allegories, relative to the solar system. The modern writers, probably more faithful echos of the ancients, because they do not fully comprehend them, have preserved the tradition that connects the seven vowels with the idea of the planets. In the sixteenth century, Belot, curate of Milmont, asserted in his *Chiromancie*, (chap. XVIII.) that the seven vowels are consecrated to the seven principal planets.

that in divination, Serapis stood as one of the emblems of the solar system, and that Pliny assigns to Serapis the temple with which the statue of Memnon was consecrated.

The mystery attached to this mode of adoration explains the application to the invocations of the epithet *ineffable*, as well as the silence which Eucrates observes respecting the substance of the oracle, in seven lines, which he pretends to have heard. Thus, in the religion of the Hindoos, of the Parsees, and even of Islam, certain syllables are consecrated, the pronunciation of which is equivalent to a prayer, and whose sacred efficacy must not be revealed.*

Whatever weight we may attach or refuse to these conjectures, with regard to particular occasions, it may be readily admitted, that where the operations of the Thaumaturgists were unrestrained by enlightened curiosity, the machinery employed for animating an automaton, or perhaps mere ventriloquism, would suffice to produce the words and the oracles attributed to Memnon.

It is not so easy to explain the repetition of the apparent miracle every morning.

The idea of an artifice that might lend its aid to the colossus, appears to have struck Strabo. His language is that of a man who is on his guard respecting any deception that might be practiced on him, rather than to admit that the sound could really issue from the stone. Otherwise, he adduces no fact in support of his conjecture.

The term of which Juvenal makes use, appears to indicate, that in his opinion, the miracle was the result of magical art, that is to

* The great mystical word in the Hindoo faith is O'M., applied to the Supreme Being. It occurs in many of the hymns in the Vestas; as for example in the following passage translated from them by Sir William Jones: "God, who is perfect wisdom, and perfect happiness, is the final refuge of the man who has liberally bestowed his wealth, who has been firm in virtue, and who knows and adores that great one!

"Remember me, O'M, Thou divine spirit!"—Ed.

say, of an ingenious and a concealed mechanism. Eustathius* positively affirms it, as well as the two *scholiastes* of the Latin satirist. One of them even alludes to a magical consecration of the statue; but he is in the habit of taking so much license with history and with received tradition, that his testimony is almost without value.

The learned Langlès adopted a similar explanation. To render it plausible, he sets out from the supposition, that Memnon repeated the seven intonations in the hymn of the Egyptian priests. To produce these, only required a succession of hammers, ranged along a key-board, and striking on sonorous tones, such as from time immemorial have served as instruments of music in China.†

If we could credit the assertion of Philostratus, that the colossus, facing the east, emitted a sound on the rays of the sun falling upon it, and at the very moment when they fell on its mouth, we might easily conceive that this miraculous mechanism was put in motion by some secret familiar to the ancients. A strong and sudden heat, produced by the concentration of the solar rays, would be sufficient to expand one or more metallic rods, which in lengthening, might act on the key-board, the existence of which is presumed by Langlès. Thus would have been derived from the sun itself, the power by which the statue greeted the return of the God to whom it was consecrated, and of whom it was emblematical.

But, notwithstanding this plausible explanation, what grounds exist for the supposition that seven successive intonations proceeded habitually from the colossus? If, in certain very rare cases, the skill of the priest was able to produce something similar to this,

* Eustathius was Archbishop of Thessalonia, in the twelfth century. He was a man of great ambition, and distinguished as a commentator on Homer. His annotations abound with historical and philological descriptions.—Ed.

† Langlès. *Dissertation sur la Statue Vocale de Memnon....* At the end of the *Voyages de Norden*. tome II. pp. 157, 256.

the historical testimonies, or the inscriptions, attest in general the emission of but one single sound. Moreover, the miracle was discovered long before the restoration of the statue, and at a time when the head lying in the sand no longer communicated with the lower part whence the sounds appeared to proceed ; and again, no researches have been able to discover in the colossus a cavity capable of containing the musical mechanism supposed by Langlès.

This last remark refutes also the conjecture of Vandale, which suggests, that in this colossus, as well as in several other statues, a cavity was contrived for the introduction of priests,* whose office it was to lend the assistance of their voice to the divinity.

The explanation proposed by Dussault is not more admissible. "The statue being hollow," says he, "the air which it contains became affected by the heat of the sun, and in escaping by some passage, produced a sound which could be interpreted as best suited to the interests of the priests.† I may ask, what testimony has ever been given that the statue was hollow ? and, moreover has not Dussault ascribed to the elevation of temperature an unnatural consequence ? To arrive at the interior air, the sun must have penetrated a layer of stone of great thickness, and that almost instantaneously and when the disc of the sun was scarcely risen above the horizon.

In the immense apartments constructed entirely of blocks of granite, which are concealed among the ruins of Carnac, the celebrated sounds emitted from the stones have been heard at the rising of the sun, by French artists. "The sounds appear to issue from enormous stones which roof in the apartments, and are threatening to fall : the phenomena undoubtedly proceeds from the sudden change of temperature on the rising of the sun.‡" I am rather inclined to think that the sounds were produced by the

* Vandale. *De oraculis.* pp. 207—209.

† Dussault. *Traduction de Juvenal.* 2e édit. tome II. p. 452. note 5.

‡ *Description de l'Egypte.* tome I. p. 234.

creaking of one of these blocks, apparently about to fall. Masses of red granite, when struck by a hammer, sound like a bell.* In short, if we admit this explanation, we must also grant that the statue of Memnon could never have ceased to be sonorous; and we must believe that the ceilings, the walls, the colossal figures, the obelisks of granite, raised in such numbers in Egypt, also rendered sounds, at the rising of the sun. Allow this, and the miracle disappears; the sonorous tones claim no more attention than any other simple fact, as common as the course of a stream, or the noise of a tempest. But we know that the colossus of Memnon alone enjoys the prerogative; and since that peculiarity has disappeared, its exposure to the sun, and the temperature of the climate have not been subjected to the slightest alteration.

The assertion on which this explanation is founded, is otherwise destitute of probability. Could the successive change of temperature, such as is supposed, cause a sonorous body to sound? I reply, No. There is no direct experiment on record, which can authorize us to credit the assertion. A bell, or tam-tam, would remain silent if exposed to it; no sounds proceeds from the æolian-harp though the coolness of night is succeeded by a temperature very perceptibly higher; and yet the strings of this harp readily procure lengthened chords on meeting with the slightest breath of air.

Sir A. Smith, an English traveller, asserts that he has visited the statue of Memnon; and that, accompanied by a numerous escort, he heard very distinctly, about six o'clock in the morning, the sounds which rendered this image so celebrated in antiquity. He conceives the mysterious sound to issue from the pedestal, not from the statue; and believes it to arise from the percussion of air on the stones of this part, which are so disposed as to produce this singular effect. But what can this *disposition* mean, since the base and lower part of the colossus have always consisted of,

* *Magasin Encyclop.* 1816. tome II. p. 29.

† *Revue Encyclop.* 1821. tome IX. p. 592.

and do still form but one piece? And how could it produce the result indicated? This the traveller does not explain. In conclusion, it may be asked, how he alone, of all modern spectators, should have heard the colossus, whose voice has been for centuries, silent? How could such an important phenomenon have escaped observation of the French who remained several years in Egypt, and who pushed their learned investigations to a great length? In all probability Sir A. Smith was deceived by a crashing noise, similar to that heard by the French artists at Carnac.

Such was the state of the question, when M. Letronne attempted to resolve it definitively by a new hypothesis which he supports with profound erudition and more logical meaning.*

The silence of Herodotus and Diodorus of Sicily respecting the existence of this apparent miracle, and also in reference to the tradition which imputes the destruction of the monument to Cambyses, induces him to reject it; whilst he fixes the period at which the statue of Memnon was first heard, to have been some centuries later. He puts aside, as an interpolation, the important passage from Manethon; and sets out, from the assertion of Strabo, comparing it with the notice by Eusebius, of a great earthquake which caused many disasters in Egypt, twenty-seven years before our era.† This brings him to the conclusion, that at that time the colossus was one among many other monuments that were broken; and that by its mutilation, it acquired a vocal power, which previously it had not enjoyed.

This new property appeared at first of little importance to the surrounding population. At a subsequent period, the Greeks and Romans recognized it as a miracle; but its renown did not become universal, or widely spread, before the reign of Nero. It was then the traveller commenced to inscribe on the columns the reverential admiration he had experienced. None of these inscriptions are of Egyptian authorship; a proof that it excites in the

* *De la Statue Vocale de Memnon*, &c.

† Euseb. *Chronicon.*

natives neither enthusiasm nor admiration. Tacitus, in relating the travels of Germanicus in Egypt, has spoken of the statue of Memnon, as it is described by Domitian and Trajan: he erred, in substituting for the opinions of an earlier century, the ideas conceived regarding it in his own times. The fame of the assumed miracle increased continually, and in the reign of Adrian it reached its height. It had suffered no diminution when Septimus Severus* conceived and executed the project of restoring the colossus, by substituting blocks of grey stone for that portion of the original mass which had been broken by the fall. The statue then became mute; the last inscriptions alluding to its vocal power do not extend after the simultaneous reign of Severus and of Caracalla;

* Lucius Septimus Severus, who acquired the Empirial purple, by proclaiming himself Emperor, when he commanded the Roman forces, stationed against the Barbarians, on the borders of Illyrium; and to secure his aim he joined Albinus, who commanded in Britain, as his partner in the Empire. His first object was to depose Didius Julianus, who had purchased the government; and who, being soon deserted by his dependents, was assassinated by his own soldiers. At this time, however, another rival for the purple existed in Pesuntius Niger; but, after many battles, he also was defeated; and Severus left with no other rival than his partner, who however soon fell beneath his fortunate sword at the plains of Gaul; and he thus became sole master of the Empire.

It was this Emperor who built the wall across the northern parts of our island, to defend his territory in Britain from the frequent invasions of the Caledonians.

As a monarch he was tyrannical and cruel; and having risen by ambition, he maintained his power by severity, and by the unhesitating destruction of every one whom he thought likely, in any manner, to oppose his inclination.

The restoration of the statue of Memnon, mentioned in the text, was attempted during a progress made by Severus into the East with his sons. He was recalled by a revolt in Britain, which he soon reduced; but his triumph was sullied by an attempt of his son Caracalla to murder him; an event which so much depressed his spirit, and added so cruelly to his bodily sufferings from gout, that he died at York, A.D. 210, after a reign of less than eighteen years.—Ed.

after this reign, also, no writer speaks of the miracle in the character of a witness.

M. Letronne adopts the conjecture which refers the sounds proceeding from the ruins remaining in their place after the fall of the anterior portion of the statue, to the sudden difference of temperature between night and day. The massive blocks with which, at a later period, it was loaded, forced it, by their weight, to resist this influence. This pretended miracle, therefore, thus confined in duration within the limits of two centuries, he considers was not the result of fraud, as the Egyptian priests did not attempt to attach to it a religious importance.

This system is plausible; sufficiently so, indeed, to tempt one, on a cursory glance, to regard the problem as definitively solved: on reflection, however, several grave objections present themselves.

First, the silence of Herodotus and of Diodorus furnish, it is confessed, an argument of apparent weight; but it is one of a negative character only. To make it conclusive, it must be shewn that, if the fact were true, these authors could not have avoided making mention of it. But, in exploring a foreign country, some things may escape the attention of the observer; and, still more possibly, some of those things which he has seen or been informed of, may be omitted in description. The learned of modern times have had proof of this in Egypt itself, when they visited that country with works of their predecessors in their hands. Further, it was a history, not a description, that was written by Herodotus. This distinction is important: description cannot be too complete, while history, passing by even interesting details, gives prominency only to the principal features.

We will not take advantage of the exaggerated accusation with which Josephus stigmatizes Herodotus, as having, through ignorance, disfigured the history of the Egyptians.* But Herodotus

* Joseph. *Adv. Apion.* lib. I.

himself, in his journey to Memphis,* to Heliopolis, and to Thebes mentions, that from what he had been able to learn, he intended merely to notice the names of the divinities. When an author thus fixes beforehand the limits of the information he proposes to give, what argument can be drawn by the critic, from his silence, respecting facts of which he has declared his determination not to speak?

The plan of Diodorus being on a still more comprehensive scale than that of Herodotus, allows still less of detail. We may observe also, that this writer, who flourished in the reign of Augustus, just concludes his work at the period when, according to M. Letronne, the vocal powers of the statue were well attested. He has not, however, spoken of it. Is it fair to conclude, from his silence, something against the reality of a lately ascertained fact, sufficiently singular to attract his attention? Certainly not; as his silence, proves nothing against the real existence of the ancient and well known apparent miracle.

Secondly, M. Letronne looks on the passage from Manethon, quoted by Eusebius, as an interpolation, merely because Josephus has omitted quoting it in from the text of the Egyptian priests;† yet, in a quotation otherwise exact, an incidental phrase is frequently suppressed, if it do not bear on the subject treated of, or if it tend to distract the reader's attention from the point on which it is desirable to fix it. Josephus had no concern in the identity of the statues of Amenophis and of Memnon; and as irrelevant to the Jewish history, he has passed over these particulars in silence. In fact, he expressly says, at the close of the quotation, that for the sake of brevity he purposely omits many things. This acknowledgment is sufficient to overturn M. Letronne's argument. The passage of Manethon exists, as it was quoted by Eusebius, who could have no object in altering it. The

* Herodot. lib. II. cap. III.

† Joseph. *Adv. Apion.* lib. I.

vocal powers of the colossus and its form, were then facts known in the time of Ptolemy Philadelphus; thence they might be referred to a much earlier time, even to the reign of Cambyses.

Thirdly, the mutilation of the colossus, falsely ascribed to the Persian King, was, according to Strabo, the effect of an earthquake: the same which, says M. Letronne, in the twenty-seventh year of our era, overturned the whole of Thebes. The Greek text of Eusebius confirms this opinion; but the Armenian version corrects the exaggeration of the extent of this disaster, limiting its effects to the suburbs.

An earthquake has at all times been a rare phenomenon in Egypt: a circumstance proved by the number of ancient edifices that, after the lapse of so many centuries, remain standing in that country. The Egyptians, therefore, were not likely to forget a catastrophe so fatal to their ancient capital, and to a monument which was the object of national veneration. Yet the terms are very vague, in which the testimony by Strabo respecting it, is addressed. His words are, "It is said that the upper part was overthrown."

The consideration which has been supposed to supplant the theory which I combat, namely, that Strabo must have witnessed the earthquake in the year 27 B.C.,* mentioned by Eusebius, does not make his language the less extraordinary. The expedition of Aelius Gallus into Arabia took place in the year 24 B.C., according to Dionysius Cassius: and we must assign the same date to the journey of Strabo, when he visited Thebes in company with that General. Would, we may inquire, such a judicious writer have expressed himself so incorrectly, respecting a contemporary event; or one, the traces of which must still have been obvious, after the interval of only two or three years?

Again, how can we admit that five hundred years after

* The Armenian versions of Eusebius, place this event three years later, the year 24 B.C.

the death of Cambyses, the mutilation of the colossus could have been attributed to that Prince, if it were really the effect of an earthquake, of which all Egypt must have been aware, and must long have retained in their remembrance? Would the contemporaries of Charles VII. have attributed the fall of an edifice crumbling away before their eyes, to the ravages of the Normans, to whom Charles the Simple yielded Neustria? The coincidence between the passages of Eusebius and of Strabo is an hypothesis, contrary to all probability, and supported by no certain indication; yet this forms the foundation of M. Letronne's theory.

What, I would ask, is the testimony of Strabo?—He visits the statue, hears the miraculous voice, and quits the spot without further research, convinced that it is better to believe anything, than to admit that stones, so disposed, were capable of producing sound! This is the language of a witness too prejudiced to allow of consideration for his opinions.

M. Letronne concludes, that the vocal statue did not yet bear the name of Memnon, because Strabo does not give it that title. I do not think so absolute a conclusion may be drawn from so simple an omission. It is already answered in the passage from Manethon.

Fifth, M. Letronne believes, that he can fix the epoch when the miracle acquires celebrity, by the date of the earliest inscriptions engraved on the colossus. We may consent to his rejecting the authority of Dionysius Periegites, by taking advantage of the uncertainty respecting the time at which the poetical geographers wrote. But we cannot go along with him in supposing, that an historian, such as Tacitus,* a man who, in his youth, had conversed with the contemporaries of Pison and of Germanicus, would, in relating the travels of that Prince, insert facts which could not have been observed till forty years afterwards. In order to establish

* Tacit. *Annal.* II. cap. LXI, and III. cap. XVI.

the existence of so strange an inconsistency, it were necessary to produce positive proofs; but none are brought forward by M. Letronne.

Sixth, Shall we conclude, with M. Letronne, that the miraculous sound was not heard by Germanicus, because we do not find the name of that Prince inscribed upon the colossus? Aelius Gallus and Strabo both heard it, yet did not engrave their names on the stone as witnesses.

Seventh, M. Letronne has rendered valuable services to science, in collecting and deciphering the existing inscriptions; but does he not go too far in saying, that the apparent miracle had no religious interest attached to it, for the natives, owing to the inscriptions being all Greek or Roman, could not decipher them? And again, in supposing that their dates fixed the duration of the sonorous property between the reign of Nero and that of Septimus Severus.

Was it possible that a phenomenon, to say the least of it, surprising in itself, could either have existed for ages, or been suddenly discovered, within the observation of the most superstitious people in the world, and yet not have been sought out and turned to advantage by those who traded in the credulity of men? This, indeed, would be a miracle, without a precedent in history; and, in its own way, no less astonishing than the existence of a speaking stone. We have traced the priest, in every country, to be the inventor of assumed miracles, or having dignified with this name natural facts, often in themselves scarcely extraordinary. Wherever the populace imagined they could discern the work of a God, privileged men were not long in appearing to receive, in the name of that God, the tributes of admiration and of gratitude. The Egyptian priests were not likely to prove exceptions, where so singular a phenomena, as the vocal statue, invited them to profit by it; even though by the Greeks and Romans, it was revered under a name they did not acknowledge, and which did not impart an idea of their own mythology to the

credulous stranger. Thanks to the daily apparent miracle, which could be produced in no other temple, they were entitled to receive offerings on their altars, and to entertain respect for themselves.

But, it may be argued, they have celebrated it by no inscription. In Egypt the walls of the temples, and even the bodies of the statues, were loaded with hieroglyphics, the sense of which is, as yet, imperfectly revealed to us. Can we confidently affirm, that none of the mysterious inscriptions in the Memnonia, make mention of the vocal properties of the statue?

Men, not belonging to the sacerdotal order, would not presume to supply the silence of the priests. The usurpation of such a right was incompatible with the sentiment of religious veneration, if we may judge ancient by modern manners. The devotees might fill the temple of the saint, to whom they believed themselves indebted for some benefits, with their vows; but to write on the statue itself, far from being a testimony of their gratitude it would be a sacrilegious profanation.

The Ptolemies introduced the worship of Saturn and of Serapis into Egypt, without being able to obtain permission to erect temples in the interior of cities, either to one or the other.* But whether from policy or superstition, and far from carrying this attempt on the national faith, the Lagides† adopted both their

* *Macrob. Saturn.* lib. I. cap. VII.

† The Ptolomies were named Lagides, from the surname Lagus, being imposed on the first of their race, owing to the following tradition connected with his birth. Arsinæ, the daughter of Meleager, having had a disgraceful intercourse with Philip of Macedon, was, in order to cover her disgrace married to Lagus, a Macedonian of low birth, but opulent. Lagus, as soon as the child was born, exposed it in the woods, where, says the tradition, an eagle sheltered him under her wings, and fed him with her prey. Lagus having had this prodigy divulged to him, adopted the infant and called him Ptolemy, from an idea that, having been so miraculously

worship and their traditions. The priests, then, remained as formerly, the guardians of the images of the Gods, and preserved them from the injury they might receive from indiscreet admiration. It was only under Augustus, that the assumed miracles of Egypt were revealed to the disciples of a foreign religion, to whom they were then, for the first time, entirely subjected. The first travellers who visited Memnon, abstained, nevertheless, from an act which the natives, too recently subdued, would have regarded as an outrage. The Greeks and the Romans, thronging to the shores of the Nile, gradually familiarized the people with their propensity to recognize their own divinities in every country. They pretended to remember Memnon; they had heard him, and among them, inscriptions were as allowable to private individuals as to the priesthood. The inscriptions multiplied, sometimes owing to superstition, sometimes to the pleasure of confirming the existence of a peculiar phenomenon, which might be doubted by those who were not themselves able to verify it. Vanity also played its part. No one could have been in Upper Egypt without boasting of having heard Memnon. These motives were gradually weakened by the number of visitors. The difficulty of being raised sufficiently high to find a space for the reception of new inscriptions,* caused this custom also to cease, after the death of

preserved and nurtured, he would become a great and powerful man. The supposition became true; for after the death of Alexander, one of whose generals Ptolemy had been, as the general division of the Macedonian Empire, the government of Egypt and Libya fell to the share of Ptolemy, who after he had ascended the Egyptian throne, preferred the title of *Lagides* to every other appellation; and it was transmitted to all his descendants, anterior to the reign of Cleopatra.—Ed.

* The height of the statue was about thirty feet; and on the legs of it only, the inscriptions in latin and greek were engraven. Most of them belong to the period of the early Roman Emperors. There is a copy of this statue in the British Museum; but it does not exceed nine feet six inches and a half in height. The head of the colossal Memnon, also in the British

Severus and of Caracalla; and other causes, independent of the duration of the miracle, may have contributed to the same effect. To presume a necessary connection between that duration and the date of the latest inscriptions, is to suppose that every witness must have written on the colossus; and consequently, that the number of witnesses was not greater than that of the names preserved in the seventy-two inscriptions collected by M. Letronne, which are inadmissible consequences, and proofs that the principle itself is erroneous.

History is silent respecting the restoration of the colossus, and consequently, it does not indicate the date. The fact is established by the existence of the remains of the blocks, placed upon the ancient base; and it appears that Lucian and Philostratus were acquainted with it; as they express themselves to the effect that, in their times, the statue was entire. Let us only remark, that in admitting their testimony, we must not mutilate it; the miraculous voice of the colossus is mentioned by both; thus, contrary to M. Letronne's opinion, the apparent miracles must have continued after the restoration of the sacred image.

Lucian died in the reign of Marcus Aurelius, and Juvenal in that of Adrian; the restoration of the statue, consequently, must be placed between these two epochs; and it must have been the work of Adrian or of Antonius.

This opinion, M. Letronne will not admit to be correct for according to his theory Severus must have been the author of the restoration, in order to make the silence of the God coincide with the date of the last inscriptions. But however little weight we may attach to the testimony of Philostratus, it certainly refutes this hypothesis. In addressing a tale, or rather a legend, to a superstitious Empress, would Philostratus have placed the resto-

Museum, is not that of the vocal Memnon. There were, indeed, many colossal statues called Memnonian, in Egypt; but only one celebrated vocal Memnon.—Ed.

ration of the colossus, an act not only eminently religious, but executed by the reigning Emperor, in the times of Domitian or of Titus? Would the author of a work, dedicated to Queen Anne of Austria, have conducted a contemporary of Francis I. or of Henry II. to the celebrated procession, of the vow of Louis XIII?

In default of historical testimonies to the effect that the restoration took place under Septimus Severus, or in the absence of the hieroglyphical scrolls where it might be registered, M. Letronne asserts, that, in imitation of Spartian, the Emperor Severus avoided inscribing his name on the monuments which he raised. But this assertion seems only applicable to Roman monuments. M. Letronne himself instances certain Egyptian monuments on which Severus had inscribed his own and the names of his children. It is not, therefore, probable that he would omit placing it on the colossus restored by his care.

M. Letronne conjectures that the unlooked-for silence of the restored Memnon was the motive which prevented the dedication, by an inscription, of this act of piety and vanity. This suggestion lays too much stress on the silence of Spartian,* as Herodotus and Dionysius (the two last nearly contemporary with Severus) respecting a fact so notorious as the restoration of the colossus, especially in an account of that Prince's travels in Egypt, and his visit to the statue of Memnon. So strange a silence would astonish us much more, if the cessation of a prodigy so long admired, had immediately succeeded the restoration of the statue. Would not these writers have spoken of it, were it only as a fatal presage? It would have been so natural for superstition to connect with it the rapid extinction of the race of Septimus Severus!

In conclusion: I believe we may consider it as fully demonstrated,

* Ælius Spartianus, a latin historian: but he is not much esteemed either as an historian or a biographer.—Ed.

that if the vocal statue was overturned by an earthquake, (and not by the fury of Cambyses), it was not the earthquake which Eusebius places as having occurred in the year twenty-seven or twenty-four before our era; and, consequently, that M. Letronne's theory is raised upon a defective foundation.

Secondly, That the hypothesis, of the restoration of the statue, having been effected by Severus, is supported neither by proofs, nor by historical indication.

Thirdly, That it is not demonstrated that the statue of Memnon became silent immediately after the commencement of the reigns of Severus and Caracalla; and if the period at which the assumed miracle commenced is unknown, we are equally ignorant of the still more recent period at which it ceased.

The cause of the prodigy remains in equal obscurity. M. Letronne, as we have seen, adopts the explanation founded on the expansion caused by the sudden change of temperature. To the objections we have already offered, we may add the following:—

First, That this variation of temperature could not recur in a degree adequate to ensure the sounds on several different occasions during the day; whilst it must be admitted that the voice of Memnon has been heard two and even three times, at different periods of the same day.

Second, It appears to me a gratuitous supposition, that the weight of the blocks that were placed on the base, at the restoration of the colossus, became the cause of its sudden silence. The immense blocks of granite, the cracking of which was heard at Carnac, supported masses of greater weight than the stones which must have served for the restoration of the colossus; and their almost spontaneous sounding, is beyond a doubt. As a general fact, the imposition of even a considerable weight, though it may arrest the vibrations of a body, at the moment when it is actually sounding, yet does not destroy the power of producing

sound, but generally changes its quality. The change becomes less perceptible, if the substance imposed, forms one body with the original, and if it is of the same nature. Now, the blocks, vestiges of which are still to be seen, are of a stone identical with that of which the base of the statue is composed,* and they are almost equally sonorous.

Lastly, these blocks having been almost entirely overturned, and the colossus being nearly in the same state, as at the period of its first mutilation, would it not have recovered the voice which, in its restoration, it had lost?

Was the apparent miracle, we may now inquire, produced by fraud? I conceive that it was the result of a deception. M. Letronne absolutely denies it. He concludes it impossible that a subterraneous passage, or a cavity, should have been formed in the base of the statue, several centuries after its erection. The objection supposes that the apparent miracle was not coeval with the erection of the statue; yet the attempt to prove this has failed. Why, adds M. Letronne, did not Memnon cause himself to be heard every time that he was visited? I reply, because to deny occasionally, or to defer the assumed miracle, excited a more lively curiosity, and struck superstition with deeper awe, and inspired a more profound respect, than it would have done, had it become familiar, and of every day occurrence.

At Naples, has not the pretended miracle of St. Januarius been frequently deferred, in order to serve the passions, the caprice, or the interest of the priest?

Mr. Wilkinson, an English traveller, has recently discovered a sonorous stone, situated under the knees of the colossus. Behind this he discovered a cavity, which he conceives to have been purposely made for the reception of the man whose function it was to strike the stone, and perform the miracle. M. Nestor l'Hote, a

* *Moniteur*, Mardi, 9 octobre, 1838, *Lettre de M. Nestor l'Hote à M. Letronne.*

French traveller, ascertained the existence of this harmonious stone, under the knee of the statue.* It is of the same nature as the stone employed in its reconstruction, and produced, on percussion, a sound similar to that of melted metal. The cavity behind it is nothing more than an enormous fissure, that rends the seat of the statue from top to bottom. We are authorized in concluding that it has not been made by design, and that the sonorous stone was only one of the materials employed in restoring it.

This fair conclusion, while it overthrows the hypothesis of Vandale, which we have already rejected, proves nothing in favour of M. Letronne. Many other modes of performing the pretended miracle might be found.†

If we inquire when the vocal properties of the statue ceased, we find the thread of history broken. In the midst of the disorders and dissensions that distracted the Empire, even after the accession of Constantine, the annalists had few opportunities of reverting to an isolated prodigy, foreign to the new religion whose tenets then began to predominate. It was even with difficulty that the assumed miracle could be renewed, and it was destined shortly to cease altogether; as, by the succession of controversies arising between the Christians and the Polytheists, religious frauds were often brought to light, and when, at a later period, the dispersant pagan priests, reduced to indigence, and exposed to persecution, abandoned their temples and their images, all was thenceforward deprived of the veneration of the people.

As too often happens at the end of the most conscientious researches, we are constrained to acknowledge our ignorance,

* *Moniteur*, No. de Mardi, 9 octobre, 1838, *Lettre de M. Nestor l'Hote à M. Letronne.*

† In whatever manner the sounds were produced it is probable that, as the priests were aware of the sounds still heard at Carnac, from the rocks on the east bank of the Nile, they would take advantage of that phenomenon to produce similar sounds from the colossal statue.—Ed.

being neither able to deny the existence of the assumed miracle, to fix its duration, nor to give such an explanation of it as would defy all objections.

The numerous examples of apparent miracles produced by means of the science of acoustics, authorize us to ascribe this one to the skill of the priests, who never allowed a singular fact to escape them, without seizing on it, and turning it to advantage. But of what nature was their intervention here? How shall we explain a fraud, varied in certain cases, to render the miracle more imposing, but generally performed in one way, in the light of the sun, in the open air, and in the midst of witnesses, who presented themselves in crowds to observe its effect, and which, nevertheless, was never discovered? This, the real question, remains yet to be solved.

# GENERAL INDEX.

# GENERAL INDEX.

## A.

Abaris, the son of Seuthes, II. 119.
Abbagumba, or Erkoom, 68.
Abracadabra, a word employed to cure Agues, 198.
Abraxas, 195.
Abunde, who was also called Hèra, 233.
Academy, St. Petersburg, Aërolites sent to, 14.
——— of Sciences at Paris, phenomenon vouched for by the, 14.
Achilles, the blows of, 20.
——— Tatius, 37.
——— inconsistency of the Spirit of, 274.
Achro, Sacrifices made to the God, 85.
Aclepiodotus, 298.
Acosta, Joseph, miracle mentioned by, 289.
Acqua de Toffana, II. 132.
Adam, Peak of, at Ceylon, 24.
Adonis, the liver of, and blood of, 20.
Aelian, supposed a casual phenomenon to be constant, 32.
Aërolites, sent to St. Petersburgh, 14.
——— falling of, frequent occurrence, 82.
——— nature of, 12.
——— sought for by Kicahan, II. 113.
Æetes, her reputation preserved as an invincible Magician, 129.
Æsculapius, invoked in his Temple, 134.
Africa, a parasol imported into, 44.
Agamede, Theocritus's account of, 210.

Agamede, what it signifies in the language of Homer, 129.
———— accused of having exaggerated, 30.
———— plants named after him, 31.
Agamemnon, dedicated a vessel of Stone, 22.
Agaric, of the Olive Tree, 32.
Agnus Dei, sent to the Emperor of Constantinople, 196.
Agrigentum, a rock near, 25.
Ainos of the Kourila Islands, 65.
Air, rendered pestilential, II. 151.
Albania, men described in, 64.
Albertus Magnus, account of, 258.
Alchemy arose from ignorance of true Science, 188.
Alexander the Great employed the Greek Fire, II. 221.
———— death of, attributed to Poison, II. 128.
———— cause of the destruction of his Soldiers at Thebes, II. 240.
Alexander, the flowing of a Spring in the Tent of, considered as a miracle, 80.
———— excited to deadly anger by songs, II, 80.
Ali, a miracle ascribed to him, 105.
Alladas, Sylvius, imitated the noise of Thunder, II. 179.
Almanacs, used to instruct the ignorant to read, 56.
Almond, the bitter, described, 39.
Alamoot, account of, II. 24.
Alphourians or Haraforas of Borneo and the Malay Islands, 66.
Althæa Cannabina of Linnæus, 31.
Amalekites inured to Magic, 100.
Amanita Muscaria, is the Muchamore, II. 15, 16.
Ambliopia, or double images, II. 38.
Amethyst, a precious stone, 50.
———— figurative description of, 50.
Amis, the oil of, 325.
Amulet, definition of the term, 194.
Ammianus Marcellinus flourished in the reign of Constantine, Julian and Valens, II. 186.
———— his account of the failure to rebuild the Temple of Jerusalem, II. 229.
Ammon Jupiter, account of the Temple of, 236.
Anamarana, II. 27.
Anaxilaus of Larissa, 290.
Anaximander, what he foretold, II. 158.
Anchurus, Son of Midas, fable relating to, 60.
Andronius, Emperor, threatened with an earthquake, II. 154.
Androïdes, 257.
———— art of constructing, known to the Ancients, 261.

Andros, miraculous Fountain in, 295.
Animals, History of, filled with details apparently chimerical, 67.
Annius Manlius Torquatus, &c., account of, 246.
Anthropophagi, 45.
Ants, described by Herodotus as larger than foxes, 36.
Aornos, where stood the sanctuary of, 273.
Apollo, Endemic diseases, termed the arrows of, 23.
———— water from the Grotto of, 164.
———— the Priests of, 24.
Apollonius, of Tyana, denied that he was ono of the Magicians, 98.
———— his Miracles admitted by Justin, 130.
———— account of, as an assumed Magician, 119.
———— Note on, 249.
———— he called a Girl to life, II. 125.
Apuleius Lucius, account of, 172.
Apparitions of the Dead, 269.
———— of the Goddess Mother, 269.
———— of Cleonice, 275.
———— produced in smoke and air, 290.
Apple of Sodom, described by Josephus, 35.
Arabs, gave themselves up to the study of Magic, 226.
Arcadia, Tradition that Minerva was born in, 86.
Arcadian Colony, carried the Worship of Hercules to Rome, 87.
Arcadians of Herea, joined in the Worship of Myagrus, 86.
Archelaus, the tower raised by, 322.
Archimedes, 266.
Archytas, 250.
Argippeans are recognized as Mongols, 66.
Argos, in Achaia, 41.
Arieni, traditions concerning the Prophet of the, 99.
Aristeus of Proconesus describes pigmies, 64.
Arius, Death of, II. 135.
Arouates, some Account of, II. 82.
Arsacides, a Rock in the land of, 21.
Asbestos, the art of spinning and weaving the, 322.
Asclepiades, II. 123.
Asclepiodotus, 185.
Ashes, that spontaneously inflamed, II. 211.
Asp, may be tamed, account of, 343.
Assassins, what Tribe so named, II. 23.
Assisi, St. Francis of, 46.
Atalanta, table of, 51.
Atesch-gah of Baku, II. 199
Athar'vana, character of, II. 195.

Atmospheric Phenomena, ancient use of, II. 162.
Aubletia, Verbena, 31.
Aulus Gelius, treats some narrations as fables, 64, 265.
Aurora, Son of, 20.
Avernus, the Lake of, described by ancient writers, 33.
———— formerly exhaled pestilential vapours, 34.

## B.

Baal-zebud or Belzebuth, origin of the name, 85.
Baaras, or Cynospastos, 180.
Babylonish Numbers, 192.
Bacchus, Note on, 50.
Bactria, founded by Nimrod, 99.
Baden, hot Mineral Springs of, 29.
Bailla, a figure of a Dragon, II. 299.
Bakhou, in Georgia, the perpetual fires near, 74.
Baku, naphtha, spring of, at, II. 199.
Baldwin's Phosphorus, II. 203.
Bambouk, the Gold there collected by washing, 38.
Barnacle goose, account of, 49.
Barochebus, Son of the Star, 212.
Barvas, or Prophets of the Billhs, 163.
Baschkirs, their faith in the Black Book, 118.
Basil, Emperor, 278.
Basle, a wine cultivated near, 41.
Baths, employed in initiation, 309.
Batz, Dragon of, II. 278.
Bayle, a philosopher who has rendered the greatest service to the human intellect, 74.
Bedley, burning spring near, II. 208.
Belladonna, its soporific power, II. 6.
———— its juice gained Macbeth's victory, II. 6.
Belus, Monument of, 295.
Belzebuth, a God worshipped in Phenicia, 85.
Bendjé, a preparation of Hyosciamus, II. 20.
Berkout, wonderful stories related of the, 30.
Bethlehem offered a striking example of Natural Objects converted into prodigies, 28.
Beverages, preparation of, II. 1.
Beyruss, Professor, anecdote of, 299.
Bezoar, miraculous powers of, II. 114.

Bishop of St. George, act of his insane Son, II. 91.
Black Books, generally descended by inheritance, 118.
Blood of Nessus, II. 214.
——— marks of, preserved for centuries, 135.
——— of Magdalene, 300.
——— of the Swiss, 42.
——— of Bulls, caused the death of Midas, 300.
——— what it indicated on the Altars of Temples, 300.
——— of the Bones of St. Nicholas, 302.
——— of the Bones of St. Thomas, 302.
——— of St. Januarius, 301.
——— of St. Lawrence, 300.
——— of St. Pantaleon, 301.
——— of the Relics of St. John the Baptist, 302.
Blue Sea, a favour attributed to the Spirit of the, 80.
Boa Constrictor, once common in Italy, II. 276.
——— Bites of it, non venomous, 45.
Bohemians, Gipsies so named, II. 212.
Bochart's assertions, 41.
Bohemians, the Chief of the, 139.
Bones, composition of, 184.
——— of St. Nicholas, 302.
——— of St. Thomas Aquinas, 302.
Boutan, 65.
Bedley, unextinguishable fire of, II. 207.
Bramah, the adoration of, 202.
Brahman's, Magical Ceremonies permitted among them, 202.
Branchides, the oracle of, 164.
Brazil, the Goldwashers of, 38.
Brocken, Spectre of the, II. 72.
Brownies, description of the, 126.
Brichtains, the Russians in Kamschatka are called, 43.
Buffon, quotation from, 182.
——— allows the possibility of the existence of steel mirrors, for the purpose of seeing vessels at a distance, 284.
Bukaw, the natives of, 65.
Bulimia, well known among the Ancients, account of, 92.
Bull's blood, those who died in consequence of drinking it, 41.
Bull's blood in the East, a poisonous beverage called by this name, 42.
——— eye, a small Cloud, so called, II. 161.
Bushmen, of South Africa, may be regarded as a race of Pygmies, 65.
Byblos, an inhabitant of, explains the phenomenon of the blood of Adonis, 20.

## C.

Cabbala, II. 203.
Cadet, M. de Metz, prediction of, II. 157.
Calaber, Q., 22.
Calchas, a Prophet, Note on, 153.
Caligula, power of against the Elements, II. 178.
——— shot Lightning against the Gods, II. 178.
Callinicus, knew the composition of the Greek Fire, II. 222.
——— of Heliopolis invented the Greek Fire, II. 221.
Cambyses, his Brother was supposed to have died from drinking Bull's Blood. 41.
Camera Obscura, 281.
Canaan, Inhabitants of, incurred Divine Wrath by their Use of Enchantments, 100.
Candolle, M. de, Note regarding him, 75.
Cantharides, used in Love Philtres, II. 41.
Canton, the Province of, 48.
Cape of Good Hope, storms at, 176, II. 161.
Caracalla, death of, predicted, 326.
Carbuncle, legend respecting, II. 288.
Cardan, indicated the mode of making Fireworks, II, 224.
——— Note on, 203.
Caribbees, legend of respecting Dragons, II. 287.
Carolina, the marshes of that place described, 34.
Casciorolus, Vincentius, discovered the Bologna Stone, II. 203.
Caspian, Well of Naphtha near, II. 200.
Cassia, 327.
Cassiodorus, Note on, 245, 246.
Catharine, St., body of laid on a stone, 25.
Cat-mint, Note on, 325.
——— influence of, 325.
Cato, what he prescribed for dislocations, II. 113.
Catopleba, what it was, 68.
Cave of Trophonius, 248.
Cedron, Brook, a rock rising from the middle of, 25
Ceres, remains of the Temple of, 249.
Ceylon, Peak of Adam at, 24.
Chaerémon, taught the art of invoking the Gods, 119.
——— his instructions how to command gain, 173.
Chaldaic Oracles, II. 192.

Chaldea, the Cradle of Astronomy, 205.
Chaldeans, the Magic of the, 134.
Charlemagne, proscribed the Tempestarii, II, 165.
Chartomi, derivation of the word, 130.
Charybdis, whirlpool of, 31.
Chederles, an account of him, II. 286.
Chevreuse, Duke of, confirmed Mme. de Guyon's fraud, II. 77.
Child, Birth of an Acephalus not impossible, 67.
China, Gunpowder long known in, II. 235.
——— Guns used in, II. 236.
——— Thunder Chariots used in, II. 236.
Chiapa, Bishop of, 289.
Chong or Rice Wine, account of, 303.
Christ, the impression of the hand of, 26.
Cicero, Remarks attributed to, 211.
Circe, her Mysterious Arts represented as purely natural, 129.
——— Agamede described as the rival of, 129.
——— account of her, II. 9.
Citron, how efficacious, 328.
Clapperton, anecdote by, 199.
Clare, St., miracle attributed to her, 47.
——— account of her, 47.
Claros, the Oracles of the Colophonians at, 164.
Cleonice, apparition of, 275.
Clerks, professors of Medicine formerly, II. 107.
Clitheroe, anecdotes of some girls at, II. 85.
Coals, walking on burning, 313.
Cloud, a picturesque designation given by the Africans to a Parasol, 44.
Cœlus Rhodigenus, Quotation from, 47.
Cœculus, imagined himself the son of Vulcan, II. 205.
——— explanation of a magical trick of, II. 205.
Colophonians, the Oracle of the, 164.
Comnenus, Manuel, knew the Composition of the Greek Fire, II. 219.
——— Anna, speaks of fire-arms, II. 223.
——— Alexis, employed the Greek Fire, II. 220.
——— Anna, her account of the Greek Fire, II. 220.
——— Alexis, how he ascertained whether he should attack the Comanes, 147.
——— Manuel died as a monk, II, 219.
Compass, Mariner's, II. 343.
——— long known to the Ancients, II. 252.
Comus, the Juggler called, 143.
Condor, the American, 29.
Corfu, rock near the Island of, 21.

Corfu, rock near the vessel which brought Ulysses back, 22.
Cos, Temple of, 102.
Cotugno, discovered Galvanism, II. 257.
Cratisthenes, how spoken of by Athenæus, 288.
——— described as merely being a skilful adept, 289.
Creusa, killed by a poisoned robe, II. 217.
Crickets, in Esthonia not allowed to be destroyed, 167.
Crocodile, large one killed near Calcutta, II. 274.
——— how one should be tamed, 336.
——— tamed, 337.
——— sacred, 338.
Crœsus, indication of the Oracle of Delphi concerning, 149.
Crusaders, described by the Greeks as Men of Brass whose eyes flashed fire, 43.
Cumin, how employed, 325.
Cyclops, made lightning and thunder for Jupiter, II. 238.
Cynocephali of Ktesias, 66.
Cyprus, the art of working Iron carried into the Islands of, 113.
Cyrus, the younger, 208.

## D.

Dædalus and Icarus, story of, 251.
Damascius, the expressions of, 185.
——— account of, 216.
——— who, 281.
Danaides, punishment of, 294.
Dance, St. Vitus, II. 87.
Darius, son of Hystaspes, 255.
Datura, its poison, II. 6.
David, King, explosion at his monument, II. 227.
Deacon Poppon, 319.
Dead, apparitions of the, 269.
——— art of questioning the, 273.
——— invocations of the, 277.
——— power of recalling the, II, 124.
——— sea, the valleys of the, 32.
Death, the Valley of, account of the, in Java, 34.
Dejanira, nature of her poisoned Tunic, II. 214.
——— Note on, II. 214.
Delphi, explosion at, II. 281.
——— Oracles of, 149.
Democrites, devoted his life to observing Nature, 45.
Demons of the Mine, account of, 90.

Demosthenes, the first Author who noticed the existence of Sorcerers, 206.
Devil, appeared to Zoroaster, II. 184.
Devinière, La, 27.
Dews, power of the, 108.
Diana, divers names for, 233.
——— Goddess, 22.
——— Endemic Diseases termed the Arrows of, 234.
——— Priestesses of, 313.
Dion Cassius, account of, 10, 11.
Dionysius of Halicarnassus, imitated lightning, II. 179.
Diorama, effect produced by a, 268.
Dioscurus, the apparition of, 25.
Distillation, art of, introduced into Asia Minor, &c., 306.
Distilling, art of, known to the Thaumaturgists, 302.
——— practised in Hindostan, Nepaul, &c., 303.
——— how received by the Nagals, 303.
Divining Rod, Note on, 193.
Divination, the gift bestowed by Apollo, 151.
Dodona, Oracles proceeded from the Oaks of, 160.
Dogs, influence of harsh sounds on, 333.
Douarnanez, marine ruins in the Bay of, 83.
Drac, its meaning, II. 294.
Dragons, winged, 275.
——— Notes upon, II. 273.
——— one destroyed by St. Julian, II. 279.
——— are mere emblems of Inundations, II. 280.
——— of St. George, Legend concerning the, II. 285.
——— legend of the Caribbees regarding, II. 285.
——— Stones taken from their heads, II. 288.
——— legend of, crept into Christianity, II. 289.
——— every Parish had one, II. 298.
——— that of Poitiers canonized, II. 298.
——— often overcome by condemned men, II. 301.
——— of Thespia, annual sacrifices to, II. 303.
Drugs, Preparation of, II. 2.
Druidesses of Sena, pretended to allay Storms, II. 164.
——— act attributed to the, 287.
Druidical Fire, II. 234.
Druids, Magic known to the, 102.
Duergar, traditions concerning the, 127.
Dyer, Bishop, preached against Witchcraft, II. 59.

## E.

Earthquake, a rare phenomenon in Egypt, II. 343.
Ecstasy, account of, II. 79.
Eddystone, Rock of, in the land of Arsacides, 21.
Egyptian Priests sole possessors of the complete Knowledge of Hieroglyphics, 177.
Egyptians, little affected at the sight of Balloons, 2.
Elijah, Cœlius Rhodiginus attempts to explain his translation into Heaven, 48.
Elis, miracle performed in, 194.
Elysius of Therina, 276.
Emblems, figure of the Serpent in, II. 294.
Empidocles, what happened to, 104.
Endor, the Witch of, 158.
Engastrimythes, why this name was given to the Pythiæ, 159.
Euthymus, combat of, with Lybas, 137.
Epimenides, stories related of, II. 119.
Eresicthon, story of, 92.
Erick-le-bon, who, II. 80.
Esculapius, Note on, worshipped as a Deity, II. 100.
Eternal City, advice given to travellers in the vicinity of, 48.
Etna, substances thrown up by it inflame spontaneously, II. 213.
Etruscans instructed by the Lydians, 171.
Eunus, account of, 311.
Euralye, one of the Gorgons, II. 187.
Eustathius, Note on, 287.
Evander, raised an altar to the God of Meroe, 87.
——— account of, 171.
Exhalations, deleterious, from a sacred Grotto, 298.
Experience has proved that the Blood of Bulls contains no deleterious property, 42.
Eymeric, his Work, II. 29.

## F.

Fancourt, Miss, cured of a spine disease by Prayer, II. 89.
Fairies, derivation of the word, description of, 124.
Falsehoods and Prodigies joined to impropriety of expression more striking when proceeding from Ancient Authors, 35.

Fates would not permit Troy to be taken, 51.
———— consulted at Venice, 51.
———— consulted by Tarquin, 150.
Fez,-a little hill in the Kingdom of, 48.
Fifes or Fairies, famed as excelling in the art of working Metals, 123.
Figurative Style, clothes facts in supernatural colouring, 44.
Fins, acquainted with the treatment of Metals, 114.
Fire Worshippers at Baku, II. 199.
———— of Pietramala, 74.
Fire, Greek, Langles's account of, II. 234.
———— perpetual at Atisch-gah, 74.
———— Trials by endured by Zoroaster, 309.
———— eating, burning, 311.
———— Darts and Balls, II. 233.
Firmus, how, escaped Crocodiles, 328.
Flamen, the Gods to whom it appealed, 123.
Flies, the presence of, in Phœnicia amounts almost to a plague, 85.
———— Myagrus, God of, Jupiter Apomyios, God of, 84.
Forbes, anecdote related by, 344.
Forespoken Water, . 54.
Fountain, Water of which coagulates, II. 14.
———— Miraculous, in Andros, 293.
———— Miraculous at Rome, 293.
———— of Heron, 294.
———— of Wieres, II. 141.
Francis, St. of Assisi, account of him, 46.

## G.

Gaffarel, the Collection of, 200.
Galvani, account of, II. 257.
Ganges, Crocodile of the, account of, 329.
Gargouille, the Dragon of Rouen, II. 301.
Gassendi, sagacity of, 107.
Gelatophyllis, perhaps a Datura, II. 13.
Gengis Khan, Tartar hordes led on by, 146.
———— where he flourished, 285.
Genii, II. 69.
———— who were the evil, 104.
———— some conjured in the Egyptian, others in the Persian language, 122.

Genii, their habitations, 175.
——— of the Earth, Air and Fire, 219.
——— metamorphosed into Serpents, 344.
——— the care of the parts of the body divided among, 36, II. 100.
Genius of the Empire, appeared to Brutus, II. 69.
Gerbert, his construction of a brazen head, 259.
Germain, account of him, 46.
Ghelongs, heads closely shaved of, 66.
Giambatista Porta, account of, 257.
Gimbernat, Mr. remarks on the Zoogène, 79.
Gipsies, II. 212.
Gitanos, what people so called, II. 212.
Gléditsch, saw the ghost of Maupertuis, II. 92.
Glycas, speaks of a shower of Quicksilver in the reign of Aurelian, 10.
——— very little known of him, 10.
Gnomes, description of the, 125.
Gnoo, described by Ælian, 68.
——— brindled, inhabitant of Southern Africa, 69.
Gold legend, 37.
——— of Bambouk, tempered with iron and emery powder, 38.
Gorgons, who they are, II, 187.
——— supposed to be ships, II, 187.
Gothic Women, Account of, 102.
Gout, spring brings periodical returns of, 35.
Gralon, King, tradition how he was saved, 83.
Grangué, near sandy mountains containing Gold Dust, 37.
Greatracks, an Irish quack, II. 88.
——— Flamstead touched by him, II. 88.
——— Lady Conway, a believer in, II. 88.
Greece, attached itself to African traditions only, 86.
Greek Fire, II. 218, 219.
——— invented by Callineus, II. 221.
——— supposed to be Gunpowder, 233.
Grignoncourt, devastated by a violent hailstorm, 13.
——— Neufchâteau in the department of the Vosges, 13.
Gryphus, great Vulture of the Andes, 29.
Guinea Worm, account of it, 36.
Gunpowder, compositions similar to, II. 227.
——— invention of, ascribed to Visvacarma, II. 235.
——— known to Magi, II. 226.
——— long known in China, II. 234.
Guyon, Madame de, Confession of, 76.
Gypäetus Barbatus, Bearded Griffin of the Alps, 29.

## H.

Hagiographers, Miracle promulgated by them, 83.
Hagno, fountain of, II. 162,
Hail Storms, securities against, II. 168.
Halliatoris, used in Persia to enliven a feast, 39.
——— able to counteract the effect of wine, 39.
Halleh or Hhuleh, a town on the Euphrates, 19.
Harz Mountains, Spectre of the, II. 72.
Haschiché, a preparation of Hemp, II. 17.
Hay-ricks, how spontaneously consumed, II. 206.
Healing Springs, II, 103.
Heat, the agency of, to what it belongs, 298.
Heaven, Translation of Elijah into, 48.
Hebrew, in this language the word milk signified a somniferous drink, 40.
Hecate, the Statue of, 291.
Hellebore, its cure, II. 97.
Hemp, its intoxicating quality, II. 17.
Herbatilicum, the causes of its being swallowed up, 83.
Hercules, passage of cattle conducted by, 25.
——— death of, II. 215.
——— composition of the Fire which killed him, II. 215.
——— the blood in which his Arrows were dipped, 42.
——— invoked the God Myagrus, 84.
——— the Serpent, 85.
——— surnamed Iatricos, or the able Physician, II. 103.
——— his death, II. 215.
Herod, opened the Tomb of David and Solomon, II. 227.
Herod, his descent into David's Tomb, II. 227.
Herodotus, quotation from, 36.
Hervorar Saga, 273.
Heydens, people so called, II. 212.
Hhuleh, or Halleh, a town on the Euphrates, 19.
Hinan-yuan, singular Chariot of, II. 255.
Hibbert, anecdote related by him, II. 86.
Highlanders, superstitions of, II. 70.
——— second sight of, II, 70.
Hindoo Mythology, 102.
Hindoos, acquainted with lightning conductors, II, 196.
——— custom of placing a perfumed Pastille in their mouths, 38.
Hirpi, 313.
Hindoostan, what diseases known on the coast of, 36.

Hindostan, belief, existing in, 102.
Hippolytus de Marseilles, II. 29.
Hippomanes, its power, 330.
Hohenlohe, Prince, impositions of, II. 89,
Homer, his many fables, merely natural facts, aggrandized by poetical conception, 31.
Horse of Tiberius of Rhodes, II, 171.
Hussites, the celebration of the excommunication of the, 140.
Hydrostatics, 244.
Hyphasis, unextinguishable oil, made at, II, 223.

## I.

Is, town of, 83.
Isaac Comnenus, Emperor, anecdote of, 81.
Idyl of Theocritus, the Second, 209.
Iamblicus, arranges the Genii into two divisions, 120.
Ice, account of it produced in a vessel at a great heat, 121.
Ida, River of, change of colour of, 21.
Imagination, influence of, II. 67.
——— definition of, II. 67.
——— warmed to delirium, II. 82.
Imitation, force of, II. 85.
——— anecdote of its power, II. 85.
Imporcitor, 123.
India, Ktesias speaks of a fountain in, 37,
Innocents, Cimetière des, blossom of a hawthorn in, 80.
Insitor, 123.
Intoxication, Greek and Persian drank much without suffering, 39.
Invocation, decline of the Art of, in Greece, 275.
——— the Art of, in Italy, 276.
Iodhan-Moran, 141.
Iphigenia, sacrifice of, 153.
Iphis and Caenis, fable of them, 73.

## J.

Justinian, the Emperor, 52.
Jael, note on Sisera, 40.
Jakoutes, prone to Ecstacy, II. 78.
James, King, a believer in Witchcraft, II. 55.

Janus, Numa consecrated a temple under the name of, 87.
——— a Symbolical Representation of the Year, 87.
Jerusalem, Temple of, could not be rebuilt, 229.
——— temple of, protected from Lightning, II. 184.
——— attempt by Julian to raze the, 213.
——— not struck by lightning during a thousand years, II. 184.
Jethro, mosque of, 19.
John of Salisbury, when he lived, 286.
Jouin, St., the Mare of, 26.
Julian, efforts of, to raze the Temple of Jerusalem, 213.
Juno, Temple of, protected from lightning, II. 174.
——— Milo, High Priest of, 55.
Jupiter Cataibates, origin of the Surname, II. 180.
——— miracle attributed by Marcus Aurelius to, 81.
——— fiction that stones were rained by, 82.
——— Elicius, II. 181.
——— Apomyios, worshipped by the Ælians, 84.
——— Ammon, temple of, 236.
——— transformations of, 285.

## K.

Kaleidescope, Note on, 261.
Kamschatka, the name of Brichtains still given to the Russians in, 42.
Kea-soum, what, 303.
——— of St. Hubert, II. 109.
Key, the cures of the, 235.
Khivans, complicated calculations made from pieces of wood by, 193.
Kicahans, subjects of the Burmese, II. 113.
Klaproth, M. Jules, describes the Nogais Tartars, 67.
Kongx, Om, Panx, 230.
Kraken, we may disbelieve all that has been related of the, 40.
Krishna, the God, definition of the Name, 172.
Ktesias, saw experiments on Lightning in Persia, II. 196.
——— speaks of a fountain in India filled annually with liquid gold, 37.
——— his accounts correct, but not his Expressions, 37.
Kurdes, or Ali-Oulahies, 105.

## L.

Labyrinth of Crete, 251.
——— of Egypt, 254.
La Charente, the Department of, 27.
Lacryma Batavica, II. 261.

Lactantius, Note on, 278.
Laguna, André, physician to Pope Julius, II. 46.
Lammer Geyer, the eagle of the Alps, 29.
Lamp, miraculous account of the oil of one, 297.
——— perpetual, 297.
——— common invention concerning, 297.
Lapis Memphiticus, II. 26.
Laplanders, described as pigmies, 84.
Larcher, turns the account of Ktesias into ridicule, 37.
Larysium, the Mount, 113.
Latacé, explanation of, 40.
Laurels, protectors against lightning, II. 172.
Law, Hindoo, account of the, II. 138.
Lead, molten, poured on Zoroaster, 316.
——— substitute for, 320.
Lebanos, Mount, composed of red earth, 20.
Leibnitz, penetrated into a secret society at Nuremberg, 221.
Lenoir, his opinions on dragons as emblems, II. 273.
Lerna, the blood of the hydra of, 42.
Lethe, waters of, II. 2.
Letronne, M., his opinions of the statue of Memnon, II. 341.
Letters, governed by angels, 197.
——— Runic, 199.
Lightning, various means to guard against, II. 172.
——— custom of proving, II. 172.
——— conductors of, reprobated by St. Bernardin, II. 174.
Llorente, who, II. 46.
Lot, division of angels by, 145.
——— suggestion of Plato regarding the contraction of marriages by, 145.
Lybas, sacrifice to the manes of, 137.
Lydas, the Sacred Books of the Etruscan priests often quoted by, 93.

## M.

Macrisius, his relation of an enormous Hail Shower, 14.
Madelaine, St., the print of her right foot, 27.
Magi, the star which guided them, 28.
——— wonders performed by, 208.
——— should be distinguished from Wizards, 234.

Magic, name applied to the art of working Wonders, 8.
———— for some time the world was governed by, 97.
———— originated from researches into the Occult Science, 96.
———— Name given by the Greeks to the science which they learnt from the Magi, 98.
———— established in Bactria by Nimrod, 99.
———— Cassien speaks of a treatise on, 100.
———— the highest consideration in Hindostan given to, 101.
———— acquired by Joseph in Egypt, 101.
———— the mysteries of, known to Pharoah's Wife, 101.
———— known to the Druids under the name of Occult Sciences, 102.
———— Voëleurs or Volveurs, priestesses well versed in, 103.
———— arts which come into common use may pass for, 113.
———— the works of, much circumscribed within the Limits of science, 114.
———— those ridiculed by Apollonius of Tyana who expected to gain by the ends of, 114.
———— how the mystery is removed from, 131.
———— severe laws issued against by the Franks and Visigoths, 229.
Magical performances much more useful to the priest than prodigies, 95.
Magician, fate of a female, 115.
———— power of those in the Isles of Séna, II. 101.
———— priest, II. 105.
Magnet, its attractive power known to the ancients, II. 248.
Magnetic sleep, II. 90.
Magnus, Albertus, Note on, 258.
———— his description of two processes, 319.
———— possessed a stone for attracting serpents, 352.
Mahomet, ascended to heaven, 27.
———— impression of the head of, 25.
———— why did he refuse to work miracles?
———— what species of divination used in the time of, 146.
———— account of, 224.
Marcomans, war against the, 81.
Marcos, miracle by, 299.
Maricus passed himself off for a God, 326.
Marses, the gift they pretended to possess, 349.
Marsian priests made to collect serpents, 349.
Martineau, Miss, her cure, II. 89.
Marum, Note on, influence of, 325.
Mash allah, what, II. 12.
Maupertuis, appeared as a ghost to Gléditsch, II. 92.
Maximus, the Cynic, II. 210.

Maximus of Turin, 234.
——— the Theurgist, 291.
Miracles, apparent, have been produced by the Science, or by the address of able men, 15.
——— at St. Petersburgh, 296.
Mecca, shower of stones at the foot of the walls of, 82.
Medals, legends discovered on, II. 183.
Medea, poison used by her, II. 217.
——— poisoned robe sent by her to Creusa, II, 217.
——— oil of, II. 217.
——— renewal of the youth of Eson by, 133.
——— how her mysterious arts were represented, 129.
Medina, a grotto near, 25.
Medusa, one of the Gorgons, II. 187.
Memnon, opinions respecting the sounding of the statue of, II. 33.
——— statue of, II. 252.
——— fell beneath the blows of Achilles, 20.
——— ancient inscriptions on, II. 331.
——— oracle connected with, II. 333.
Memphis, situation of, 216.
——— stone of, II. 26.
Menelaus, Greeks bound to him, 153.
Mendes, Note on, 233.
Meroe, locality of determined, 86.
Metal, fusible, 320.
Meteorology, limited information in, II. 160.
Mexico, Traditions of the people who emigrated from, 43.
Midas, King of Phrygia, how he died, 41.
Michaelis, his explanation of several explosions, II. 227.
——— account of, 170.
Mines, supposed to be inhabited by Genii, 127.
Miners, supposed to be destroyed by Demons, 89.
——— what was said of the Genii, might hold good of the, 128.
Milo of Croton, 55.
Miracle, on the attempt to rebuild the Temple of Jerusalem, II. 229.
Mirme, head of, 259.
Misletoe, account of the, 232.
Missouri, the people who dwell in the burning mountains north of, 43.
Mnemosyne, waters of, II. 2.
Mochus, who were his descendants, 130.
Mongolia, an army of rebels pursued in, 80.
Morat, Lake of, extraordinary appearance of, 75.
Moses, understood Electricity, II. 183.

Moses, possessed some knowledge of electricity, II. 183.
Mother of, the Water, description of, II. 320.
Moudela, Crocodile, 328.
Mountain of the Hand, 26.
Muchamore, plant of, II. 15.
Music, the influence of, 162.
——— the power of, on animals, 331.
——— Cats agreeably affected by, 332.
Myagrus, the God, invoked by Hercules, 84.
Myrope, the plant, occasions blindness, II. 142.
Mystery, custom of, 216.
Mythology, Greek, did not admit one Deity to interfere in the schemes of another, 114.

## N.

Nadoëssis, ignorant of ciphers, 199.
——— a religious society, II. 4.
Naevius, the Augur, 149.
——— his talent as an Augur appeared from infancy, 167.
Nagals, how the art of distilling was received by, 303.
Naguals, power ascribed to the, 289.
Naptha, its abundance and use at Baku, II. 196.
——— native, brought from the Caspian, II. 200.
Navigators, French and English deceived, 22.
Natural Physics employed by Magicians, II. 167.
Nazareth, the mark of the Virgin Mother's knee near, 25.
Nebuchadnezzar, method of decision, 146.
Nekyomantion, introduction of Achilles into a, 274.
——— Virgil's description of, 275.
——— Pausanias driven to a, 275.
Nelson, Lord, monument to, on the Calton Hill, 23.
Nepenthes of the Greeks, account of, II. 10.
Nessus, blood of, II. 214.
——— misnamed, 42.
Newton, Sir Isaac, anecdote of, II. 162.
Nicasius, St. Bishop of Rheims, 18.
——— Church of, 18
Niobe, 22.
Nipa, Palm Tree, 304.
Nonacris, the water of, II. 131.
——— account of, II. 132.
Nonnosus, regarded as a Narrator of Fables, 52.

Numa, killed by lightning, II. 175.
——— the books of, 177.

## O.

Obarator, 123.
Obsequens, Julius, 70.
Occator, 123.
Occult Science, its use in removing the mystery of Magic, 131.
——— unknown to Mahomet, 112.
——— lustre added by Zoroaster to the, 109.
Odin, regarded as the inventor of magic in Scandinavia, Note on, 102
Odin possessed of a speaking head, 259.
Odours, influence of, II. 37.
Œnomaus, King of Pisa, killed by his son-in-law, II. 181.
——— Note on, II. 181.
Oil of Medea, a poison, II. 217.
——— of vitriol, 305.
——— fraudulent practices with, 296.
——— unextinguishable, whence obtained, II. 224.
——— Miraculous overflow of, 297.
——— produced from common salt, 305.
Old Man of the Mountain, account of, II. 18.
Ololuchqui, account of, II. 41.
Olympia, the statue of Milo in, 55.
Olympic games, 84.
Onocentaur, what is designated by, 67.
——— resembles the Chimpanzee, 68.
Ophiogenes in Cyprus, 348.
Ophiusa, a plant of Ethiopia, II. 14.
Opium, power of, II. 118.
Oracle, belief in by Baro, 149.
——— of Delphi, indication of, concerning Crœsus, 149,
——— history of, 151.
——— account of the ancient, 154.
——— Chaldaic, II. 192.
——— of Dodona, 160.
Ordeal of heat, 315.
——— by fire, early known in Greece, 316.
——— of boiling water, 318.
——— of exposure to ferocious beasts, 326.
——— of swimming among crocodiles, 328
——— of poisons, II. 138.

Organs not unknown to the ancients, 255.
Origen, account of, 144.
———— opinions advanced by, 145.
Orose, Paul, 293.
Orpheus represented as versed in Magic, 129.
———— Note on, 179.
———— historical explanation of the fable of, 273.
Orpheus, account of, II. 36.
Orphic mysteries, 179.
Osages, Magicians among the, 139.
Oscellatoria rubescens, what was caused by the development of, 76.
Ossian, a comparison of his, II. 204.
Oupnek'-hat, passage of, II. 196.
Oxus, wells dug in the vicinity of the, 80.

## P.

Pachymerus, assertion of, 317.
Pactolus, wonderful stone found in the, 255.
Palo-Marco, 64.
Paracelsus, Note on, II. 108.
Paragrales, II. 168.
Paragrandines, security against hail, II. 168.
Pausanias, his initiation, II. 40.
Paw, II. 153.
Pegna, Francis, who, II. 30.
Pelops, accessory to the death of Œnomaus, II. 181.
Pentheus, Note on, 39.
Perfumes, use of, by the Ancients, II. 36.
Perkinism, account of, II. 90.
Persian Greeks listened eagerly to the Magi, 209.
Persians, exulted in being able to drink much without suffering intoxication, 39.
Peter, the river of St., 43.
Petersburgh, St., pretended miracle at, 297.
Petronius Arbiter, his romance, II. 3.
Phantasmagoria, now only restored not invented, 279.
———— account of that brought out in London, 280.
———— the instruments which formed, 281.
Phosphorus, how used by the ancients, II. 209.
———— Bologna, II. 202.
———— Baldwin's, II. 203.

Phosphorus, ancients acquainted with it, II. 209.
Phrygia, where Diana rewards the love of Endymion, 4.
——— Rome borrowed the fable of Anchurus from, 61.
Physical science, for the most part can explain the sorcery of Thaumaturgy, 5.
Physicians, looked upon as Gods, II. 100.
Physics, natural employed by magicians, II. 167.
Pisa, church of, how set on fire, II. 206.
Pietramala, the fires of, in Tuscany, 74.
Pigeons, carrier, 335.
——— dung, burnt the church of Pisa, II. 206.
Pigmies described by Ktesias, 65.
——— supposition of the ancients concerning them, 66.
Pliny discusses proper methods for preventing a return of the plague, II. 156.
Pliny and Aelian accused of having exaggerated, 30.
——— names three magical plants endowed with magical properties, 31.
Poisons, Hindoo, named Powst, II. 133.
——— trial by, II. 138.
Pontiffs, the Roman in their rites made use of words known only to themselves, 171.
Polycritus, the ghost of, 259.
Polyphemus, conquered by Ulysses, 22.
Polypi, dimensions of the, exaggerated, 30.
Polytheism, miracles of, exposed by the Christian religion, 161.
——— legends of, transformed into moral allegories, 215.
Porphyrogenetus, Constantine, advice to his son, II. 221.
——— used the Greek fire, II. 221.
Porphyry, account of, 119.
——— his refutation of Chaerémon, 120.
Porsenna, story of explained, II. 178.
Posthumus, Dictator, victory gained by him, 25.
Potamantis, a plant, II. 13.
Powder, offensive, II. 153
Prayers, miracle attributed by the christians to the efficacy of, 81.
Priest, title inseparable with physician and sorcerer among the Nadoëssis, &c., II. 105.
Proclus, a physician, II. 36.
Priests of Phrygia and Lyria, threw open their sanctuaries, 209.
Prodigy, every thing so in the eyes of the ignorant, 7.
Protesilaus, the wife of 277.
Proteus, account of, 288.
Psammenites, King of Egypt, cause of the death of, 41.
Psendo-monarchia Dæmonum, of what origin, 235.
——— genii of, 236.
Psychagogues, 275.

Psychagogues, visited by Elysius, 276.
Ptolemies, introduced the worship of Saturn and Serapis, II. 346.
Pyrites, what composed of, II. 203.
Pythagoras, three plants according to him had the power of freezing water, 31.
——— who were the prophets consulted by him at Sidon, 130.
——— account of, 159.
——— what sagacity attributed to, II. 154.
Pythonesses known among the Gauls, 233.
Purgatory of St. Patrick, II. 94.

## Q.

Queen Elizabeth, Statute against witchcraft, II. 59.
——— sermon against witchcraft preached before her, II. 59.
Quicksilver, a shower of, 10.

## R.

Raymond of Sully, his exploit, II. 303.
Rabelais, the memory of, 27.
Radegonde, the Church of St., 27.
Rain, diverse opinions of that which succoured Marcus Aurelius, 81.
Raleigh, Sir W. Note on, 64.
Rats, Lybian, Note on, 68.
—— yellow, transformed into yellow quails, 49.
Rattle Snake, the young at the approach of danger take refuge in the mouth of the mother, 33.
Religion of Egypt, disturbed by Cambysis, 40.
Regillus, Lake, 25.
Reparator, 123.
Rhabdomantic Art, 193.
Rheims, ringing of Bells at, 18.
Rhésus, horses of, 51.
Rigveda, Character of, II. 193.
Rosicrucians, account of the, 220.
Roukh, or Roc, under this name narrators have described a monstrous bird, 29.
Royal Touch, Account of, II. 88.
Rogations, II. 291.
——— Serpents carried in the processions, II. 295.
Rome, legend of its inundation, II. 292.

## S.

Sabat, account of, II. 42.
——— St. Augustus speaks of, Note on, 228.
——— what passed at the, 231.
——— inventions taught at, II. 149.
Sabarsen, Religious System, prevalent in Arabia, 202.
Saint Arnel, his exploit with a Serpent, II. 296.
——— Athanasius, Note on, II, 135.
——— Balsemus, 57.
——— Bernardin, reprobated lightning conductors, II. 174.
——— Clara, in a church in Normandy, 56.
——— Clare, account of her, 47.
——— Cyr, well at the church of, II. 295.
——— His victory over a dragon, II. 295.
——— Denis, 57.
——— Epiphanius, account of, 99.
——— Exuperantius, 56.
——— Felix, represented on the seal of the Canton, 56.
——— sent St. Martin to Nantes, 83.
——— Florence, his exploit with a serpent, II. 297.
——— Francis of Assisi, account of, 47.
——— Germain at Auxerre, account of, 46.
——— Hilaire, Geoffroy, 71.
——— Hilary, his triumph over a serpent, II. 298.
——— Hubert, Note on, II.
——— Januarius, Note on, 301.
——— John the Baptist, Relics of, 302.
——— Justin, Note on, II, 11.
——— Lawrence Scopali, Note on, 300.
——— Lucain, 57.
——— Lucian, 57.
——— Magdalene, the blood of, 300.
——— Martin, sent to convert, 83.
——— his triumph over a Serpent, II. 297.
——— Maurice of Agen, 57.
——— Michael, legend of killing the dragon, II. 290.
——— His sword and shield exhibited, II. 291.
——— Mitrius, at Arles, Note on, 56.

Saint Nicasius, first Bishop of Rouen, 57.
——— Nicholas of Tolentius, bones of, 302.
——— Painted, holding his head, 56.
——— Patrick, lighted a kiln with snow, II. 207.
——— Pantaleon, Note on, 301.
——— Note on, 52.
——— Purgatory of, II. 94.
——— Par, one of three martyrs, 57.
——— Paul, Trance of, 48.
——— Phocas, curative power of his Tomb, II. 294.
——— Principius at Souvigny.
——— Regula, 56.
——— Sané, the iron collar of, 141.
——— Savinian, 57.
——— Thecla, miracle attributed to her, Account of, 81.
——— Thomas, the black slaves at, 161.
——— Aquinas, bones of, 302.
——— Vitus' Dance, II. 87.
Salmonius, the fable of, II. 179, 180.
Samaria, a prey to the horrors of famine, 41.
Sâmaveda, character of, II. 194.
Samoyedes, a people recognised in the narrations of Greek writers, 64.
——— very susceptible of fear, II. 83.
——— how cured, II. 97.
San Severo, occupied with chemical experiments, 183.
Sannyasi, visions of, II. 93.
——— Description of the sect of, II. 94.
Sarritor, 123.
Savoy, a block of granite at, 24.
Saxo Grammaticus, first tales of, 103, 285.
Scandinavians, the power they attach to verse, 196.
Schools of Philosophy, opened to the Christians, 215.
——— of Toledo, Seville and Salamanca, 226.
Sciences, Occult, the domain of, reduced within true limits, 16.
Scopelism, the emblem of, II. 148.
Scrofula, royal touch and cure for, II. 88.
Scylla, what becomes of the tradition of, 30.
Scythia, the liqueur of, 304.
——— impression of Hercules foot left in, 25.
Scythian asses, II. 129.
Scythians, Anthropophagi existing amongst the, 64.
——— sometimes have the appearance of old women, 64.
Seals, representation of saints on, 56.
Second sight, Note on, II. 71.

Sementini, Doctor, 321.
Serapion, the Egyptian, 326.
Serapis, constellation of the nquinox represented by, 86.
Seres, described by Pliny and Virgil, 37.
Serpent, tamed of Ajax, 341.
——— in Timauni, 341.
——— Papa, or Ammodite, 342.
——— Naja, 347.
——— discovered in the Antilles by its odour, 350.
——— that opposed by Regulus, not a Boa-Constrictor, II. 276.
——— winged, could only have been emblems, II. 277.
——— monstrous, emblematic of inundations, II. 278.
——— legends of, adopted into History, II. 283.
——— of Sologne, Legend respecting, II. 293.
——— figure of, in emblems, II. 294.
——— ancient Mythology, connected with legends of, II. 316.
Shells of beans, II. 150.
Siam, mode of calculating Eclipses existing in, 191.
Siberia, shut out from the age of inventions, 304.
Simmias, a Philosopher of Thebes, II. 32.
Simon, the Magician, 289.
Simplicus, Pope, 316.
Sipylus, Mount of, 22.
——— Mount of, endemic diseases peculiar to the neighbourhood of, 23.
Sisera, Note on Jael, 40.
Sita, wife of Rama, 314.
Siva, colossal statue of, account of, 152.
——— adoration of, 202.
Smerdis, brother of Cambyses, 207.
Snakes, Hindoos allowed themselves to be bitten by, 347.
——— stones, account of, 347.
Snow, from what causes it becomes of a red hue, 76.
——— red, account of, Note, 77.
Synesius, account of, 216.
Soap, its incombustible influence, II. 33.
Solanum, poison of, II, 11.
Solinus, Note on, 52.
Solomon, explosion at his Tomb, II. 287.
Soolimas, the King of the, 334.
——— the tribe of the, 142.
Sorcery, Bishop of Spires, accused of, II. 63.
——— various accusations of, II. 64.
Soukh-oos, Note on, 338.

Spikenard, Note on, 327.
Spinon, nature of, II. 207.
Spots, Red, appearance of, 78.
Spring, fatal, in Thrace, II. 131.
——— of water near Tyana, II. 140.
Statues, sweating and weeping of, 279.
Steinacker, M., death of, II, 217.
Stheno, one of the Gorgons, II. 187.
——— Hercules, the Constellation of the Equinox represented by, 86.
Stone, Boat of, 22.
Stones, account of wonderful, 256.
Striæ, 233.
Sun, effect of looking on the, I. 93.
Superstitions, Note on various, 88.
Superstitious observances, Note on, 123.
Sutee, II. 27.
Sweet Kernels, what is meant by, II. 115.
Swedenborg, affirmed his revelations to be a sufficient Miracle, 112.
Szalina, salt mine of, 75.

## T.

Taisch, Note on, II. 70.
Tanyoxartes, brother of Cambyses, how he died, 41.
Tarasque, account of, II. 274.
——— emblematical of the inundation of the Rhine, II. 280.
Tarchon, founder of the Etruscan Theurgists, II, 172.
——— the ancient, 172.
Tarquin, the elder, Note on, 149.
Tartars, some tribes eat the condemned to death, 65.
——— curious custom of the, II. 212.
Tchin, wine poisonous, in which are macerated the feathers of, 41.
Tchu-Ki, a species of partridge, called the, 48.
Telchines, derivation of the name, 113.
——— first regarded as magicians, 123.
Tell, William, story of the apple, II. 305.
Temersa, sacrifice at, 137.
Temple of Jerusalem, attempt to rebuild, II. 229.
——— of Juno protected from lightning, II. 174.

Temple at Delphi, Account of the, 104.
Tenda Maia, pigmies found there, 66.
Teraphim, account of, 250.
Teriakana, or opium shops, II. 11.
Terra, the Temple of, 42.
Tetractys of Pythagoras and Plato, 193.
Thales, enabled to predict an eclipse, 205.
Thaumaturgian subalterns held in like estimation, 211.
Thaumaturgist, his facility of inspiring a belief in the fulfilment of wonders, 133.
Thaumaturgists, the sect mere labourers in natural philosophy, 119.
——— unknown to Mahomet and Swedenborg, 112.
——— in what consisted their power, 118.
Thaumaturgy, can for the most part be explained by physical science, 5.
Tiberius of Rhodes, his horse electrical, II. 171.
Tji-Kounir, waters of troubled, II. 155.
Thecles, how he escaped the wild beasts, 326.
Themistocles, the cause of his death, 41.
Theodoretus, Note on, 283.
Theophrastus, named a mineral stone spinon, II. 207.
Theurgists, spirits, described by a, 120.
Theurgy, defined, 112.
Thibault, General, anecdote of, II. 92.
Thompson, Agnes, a witch, II. 55.
Thousand and one Nights, Tales of the, of Hindoo origin, 115.
Thrasybulus, what appeared when he was at the head of the exiled Athenians, 81.
Toddy, made at Ava, Siam and Pegu, 304.
Toko, story of Tell's apple applied to him, 305.
Touch royal, in scrofula, II. 88.
Tours, Gregory of, quotation from, 28.
——— Miracle described by, 297.
Tower, raised by Archelaus, 322.
——— of Larch wood, 323.
Travers, Mr. his opinion of Miss Fancourt's case, xxxiv.
Trance, sometimes beneficial, II. 78.
Trial of burning coals still practised among the Hindoos, 315.
——— by poisons, II. 138.
——— by water, II. 139.
Tritonides, the formation of, 86.
Tritonis in Lybia, the lake or river of, 87.
Tripod, how placed, 165.
Trogus, Pompeius, Note on, 54.
Trophonius, mysteries of his cave, II. 5.

Trophonius, cave of, 247.
——— Timarches, his account of his initiation, II. 5.
Trows, under what names are recognised the, 127,
Tsaltsalya, account of, 86.
Tschingis, 309.
Tullus Hostilius, drew lightning from the clouds, II. 183.
——— discovery from the books of Numa, Note on, 178.
Tullus, his death, II. 177.

## U.

Ulysses, vessel of, 22.
——— his rowers, 31.
——— admission of into a Nekyomantion, 274.
Unctions, mysterious, belonging to ancient Magi, 230.
——— the effect of, 231.

## V.

Valmont de Bomasi, quotation from him, 31.
Vandale, Anthony, account of, 151.
Varro, Columella, Pliny and Solinus, extraordinary relations of, 54.
Vedas, scriptures of the Hindoos, 193.
——— the collection of the, 101.
Vegetation, various methods of destroying, II. 150.
Ventriloquism, definition of, 157.
——— account of the art of, 158.
Venus, altar of, on Mount Erycus, 74.
Vervator, 123.
Vishnú, the adoration of, 202.
Vitus, Saint, his dance, II. 87.
Voëleurs or Volveurs, priestesses, 102.
Vulcan, arms fabricated by, 114.
——— art of treating metals deified under the name of, 123.
——— traditions of, 250.

## W.

Wailand, by whom instructed in the art of forging, 114.
Waldenses, account of, II. 50.

Water, forespoken, account of, II. 54.
——— ordeal of boiling, 118.
——— used in Hindostan, 115.
Water, expansive power of known to the ancients, II. 246.
Waters becoming muddy previous to an earthquake, II. 155.
Wierius, J., fragment published by, account of, 174.
Wilkinson, Mr., discoveries of, in the statue of Memnon, II. 351.
Wine, rice, made in China, 303.
——— of Salerno, 305.
Wire-gauze, used by the ancients on the principles of Sir H. Davy, 291.
Witchcraft, numbers condemned at Geneva, II. 49.
——— Reginald Scott's work on, II. 49.
——— Shepherds supposed to practise, II. 52.
——— Mrs. Dyer accused of, II. 59.
——— belief in, leads to every vice, II. 62.
Witches burnt at Würzburg in 1750, II. 58.
——— burnt in England in 1751, II. 58.
——— seventeen burnt at Osus in Essex, II. 60.
——— statute of James I. of England against, II. 60.
Words, used in the operations of Magic only Greek and Latin, 229.
Wraiths, account of, II. 70.

## X.

Xanthus, the horses of Rhésus not permitted to taste of the waters of, 51.
Xen-si, the province of, 75.

## Y.

Yadjour-Veda, its character, II. 194.
Yogis, account of, II. 33.

## Z.

Zagh, description of, II. 130.
Zealanders, the New, avowed cannibals, 65.
Zigeuners, what people so called, II. 212.
Zingari, origin of, II. 212.
——— what description of people, II. 212.
——— their perfection in tricks of every kind, 139.
——— definition of the term, 139.

Zoogène, description of the appearance of, 79.
Zoroaster had an interview with the devil, II. 184.
——— perished by lightning, II. 186.
——— verses by, II. 188.
——— his doctrines, II. 190.
——— what occurred to him, 48.
——— had no other aim than that of making additions to the art of Magic, 99.
——— often entered the lists with necromancers inimical to his doctrine, 108.
——— trials of fire endured by, 309.
——— allowed melted lead to be poured over him, 318.
——— that under the name of, the Persians worshipped a son of Shem, II. 185.
——— oracles attributed to the disciples of, II. 188.
——— prayed to the Gods to be struck by lightning, II. 186.

END.

LONDON:
Printed by Schulze & Co., 13, Poland Street.