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INTRODUCTION.

MEDICAL JURISPRUDENCE (*a*) may be defined, a science by which medicine, and its collateral branches, are made subservient to the construction, elucidation, and administration of the laws; and to the preservation of the public health.

It accordingly resolves itself into two great divisions—into *Forensic Medicine*, comprehending the evidence and opinions necessary to be delivered in courts of justice; and into *Medical Police*, embracing

(*a*) We have preferred this term, as best calculated to express, in the most comprehensive manner, the application of Medical Science to the purposes of the law. Different writers, however, upon this branch of knowledge, have employed various other terms for the same object, such as *Legal*, *Judiciary*, or *Juridical Medicine*; *State Medicine*, *Forensic Medicine*, *Medical Police*. The two latter terms, evidently cannot with propriety be considered synonimous with the former, for they are, strictly speaking, subordinate divisions. Some authors have objected to the term *Medical Jurisprudence*, as implying a knowledge of the laws relating to medical topics, rather than an acquaintance with the medical science necessary for the elucidation of legal subjects. As it is our peculiar object to unite the sciences, and to shew their mutual relevance, the title becomes most applicable to this, although it may have been improperly affixed to former works.

the consideration of the policy and efficiency of legal enactments for the purpose of preserving the general health, and physical welfare of the community.

Under no circumstances does medical science assume so imposing and dignified an attitude, as when regarded as a branch of legislation. Disentangled from the web with which worldly caprice, credulity, and empiricism, are ever seeking to embarrass the more ordinary path of her labours, she at once displays her pride and strength in the number and variety of her resources, and in the extent and importance of their applications; while the professor of our art is thus enabled to support additional claims upon the respect of the learned, the confidence of the oppressed, and the gratitude of the public. In the active exercise of his duties as a medical jurist, how exalted and honourable is the occupation of the physician!—there is scarcely a circle of natural science, upon the boundaries of which he does not impinge in some point or other, of his extensive orbit. Trace his progress, for instance, through the subject of poisons, and we shall soon perceive that it involves within its range the departments of anatomy, physiology, botany, mineralogy, zoology, and chemistry. If, again, we follow his steps through the deviating and perplexing course of homicide, in how many new and interesting forms will the principles of physiology present themselves; how frequently shall we find ourselves engaged in the solution of problems connected with the knowledge of pneumatics, hydrostatics, and mechanics? If we attend him in the investigation of nuisances, as affecting the health and comfort of the surrounding inhabitants, we shall perceive that an acquaintance with the various

branches of natural philosophy, can alone enable him to appreciate the nature and extent of the evil, or the value of the different plans that may be proposed for its removal. While the intricate and perplexing subjects of quarantine and plague police, will require for their elucidation, the energies of a peculiarly constructed and well disciplined mind, to concentrate the genuine lights into a focus, and to dissipate the many specious, but false appearances, with which the question of contagion has been distorted.

The institution of medicine and jurisprudence, necessarily arose as the consequence of the physical and moral infirmities of our nature, and must, therefore, have been nearly coeval with the origin of society. In the earlier periods, however, of the world, the connection between these sciences could only have been slight, and scarcely, perhaps, perceptible; although we are strongly inclined to believe that *Medical Jurisprudence* has an origin far more ancient, and an influence far more extensive, than modern writers have been willing to concede; an opinion which we are prepared to support by the authorities of profane as well as sacred writers, and by the history of civilized as well as barbarous communities. It must be admitted, that no inconsiderable a part of the institutions of the great law-giver of Israel, was a wise system of medical police, well adapted for the preservation of the health, and the amelioration of those evils to which the inhabitants of a tropical climate must have been exposed; and we read, that Moses was skilled in all the learning of the Egyptians. In Leviticus, (*a*) commands are given to the priests to visit the houses infected with the plague of leprosy, or with any contagious disease; to

(*a*) Chap. xiii. xiv.

examine the inhabitants; to establish quarantine; to scrape and white-wash the houses; to shut them up, and, in bad cases, to pull them down. If we descend into later times, we shall discover the same policy of associating the institutions of medical police with religious ceremonials; by which the performance of duties, essential to the preservation of the health, was more effectually enforced. The author has observed, in the historical introduction of his "*Pharmacologia*," that bathing, which at one period of the world was essentially necessary to prevent the diffusion of leprosy, and other infectious diseases, was wisely converted into an act of religion, and the priests persuaded the people that they could only obtain absolution by washing away their sins by frequent ablution; (*a*) but, since the use of linen shirts has become general, and every one has provided for the cleanliness of his own person, the frequent bath ceases to be so essential; and, therefore, no evil has arisen from the change of religious belief respecting its connection with the welfare and purity of the soul. Among the religious impurities, and rules of purification of the Hindus, we shall be able to discern the same principle, although distorted by superstition. (*b*) So, again, it is easy to perceive, that the dangers consequent upon vinous inebriation in a hot climate, suggested the Mahometan prohibition of wine. The religious ceremonial observed by the ancients, whenever they proposed to build a town, or to pitch a camp, was evidently an act of legislation, founded on a just principle of physiology; they offered a sacrifice

(*a*) So important was this act in the climates of Asia and Africa, that the Mahometan, if unable to obtain water in the Desert, was directed to cleanse his person by frictions with the sand.

(*b*) See *Mill's* History of British India.

to the gods, when the Soothsayer declared, *from the appearance of the entrails*, whether they were propitious or not to the design. What was such an inspection but a philosophical inquiry into the salubrity of the district, and the purity of the waters by which it was supplied?—for it is well known that in unwholesome situations, especially if swampy, the viscera of the cattle will universally present an appearance of disease, which an eye experienced in such dissections, would easily distinguish.

But, in order to shew the universality, as well as the antiquity, of the policy which we are endeavouring to establish, we propose to furnish the reader with an illustration, afforded by the superstitions of an uncivilized race of modern times. The pearl-diver in the East-Indian fisheries is constantly exposed, during his dangerous occupation, to the attack of the *Ground-Shark*, a common and terrible inhabitant of all the seas in those latitudes. In order to avoid falling in with this foe, the adventurous Indian seeks for safety in supernatural means. Before he begins diving, the priest, or conjurer, or, as he is termed in the Malabar language, the *Pillal Karras*, or *Binder of Sharks*, is always consulted, whose directions upon these occasions are received with confidence, and followed with the most implicit obedience. The advice which is given them, under the imposing weight of a religious ordonnance, has, for its sole object, the maintenance of the health of the diver, and the adaptation of his body for the arduous occupation in which he is engaged; and it is not a little curious to observe that in the performance of this duty, the *Pillal Karras* appears to display a judgment, which the most enlightened views of modern physiology could not improve. The diver,

for instance, is enjoined to abstain from all food for some time previous to his descent; a practice, the value of which will be duly appreciated by those who read our chapter on the physiology of Suffocation, vol. ii. p. 34.

In those countries, where it becomes necessary to check the increase of population, we again find that ecclesiastical institutes are made subservient to state policy; thus the religion of the Island of Formosa (*a*) prohibits women becoming mothers before the age of thirty-five years; and, should they become pregnant before that time, the priestess procures abortion by violence (*b*).

In the book of sacred law of the Hindus, (*c*) the rules for the choice of a wife are formally and minutely detailed, and will be found remarkably conformable with our physiological notions respecting the transmission of disease and deformity.

The knowledge of *Forensic Medicine*, if not as ancient and universal as the Institutes of Medical Police, may still boast of an early origin, and a very extensive influence; thus in *Deuteronomy* (*d*) in cases of doubtful virginity, the Elders are to be consulted, in order that they may deliver their judgment from the physiological evidence of the case. In ancient nations the assistance of the philosopher and physician was universally required for the prevention, as well as detection of crime; thus was *Archimedes* consulted by the king of Sicily, when a workman was suspected to

(*a*) Collection of Voyages, that contributed to the establishment of the East India Company. Vol. i part i. p. 182.

(*b*) Aristotle proposed the same means of checking the increase of population. *Aristot.* de Republica. lib. vii. c. 16.

(*c*) Institutes of Menu. ch. iii. 6 to 10.

(*d*) Chap. xxii. verse 15.

have fraudulently alloyed the gold in his crown. The Romans, especially in the reign of *Severus*, *Antonine*, *Adrian*, and *Aurelius*, constructed several laws, and reformed some others, in conformity with the sentiments inculcated in the works of *Hippocrates* and *Aristotle*; the capital crime of procuring abortion was accordingly limited to those cases wherein the fœtus exceeded forty days; and the *Emperor Adrian* passed a decree upon the subject of legitimacy, as connected with the period of utero-gestation, according to the physiological opinions with respect to the possibility of retarded delivery; (*a*) while *Numa Pompilius* prohibited the burial of a pregnant woman, or of one supposed to be pregnant, until the fœtus should have been extracted, or the state of the uterus ascertained by dissection. (*b*).

The trials by ordeal in the dark ages of modern Europe, when the decision of the most important questions was abandoned to chance or to fraud, when carrying in the hand a piece of red hot iron, or plunging the arm in boiling water, (*c*) was deemed a test of innocence, and a painful or fraudulent experiment, supplanting a righteous award, might consign to punishment the most innocent, or save from it the most criminal of men, have ever been deemed a shocking singularity in the institutions of our barbarous ancestors. We are ready to admit the justice of this charge generally; and yet we fancy that, upon some

(*a*) See our Physiological Illustrations of Parturition, vol. i. p. 246.

(*b*) Vol. i. p. 280.

(*c*) Priests were among the earlier chemists, and it is asserted that they frequently instructed the accused, either from a conviction of his innocence, or from less disinterested motives, in some of those means of resisting the action of fire, by which modern jugglers are still enabled to amuse and astonish the vulgar.

occasions we are enabled to discern through the dim mist of credulity and ignorance, a ray of policy that may have been derived from the dawning of a rude philosophy. Trials by ordeal, as we are informed by Mr. *Mill*, hold a high rank in the institutes of the Hindus. It appears that there are no less than nine different modes of trial, but that *by water in which an idol has been washed*, and the one *by rice*, are those which we shall select as well calculated to illustrate the observations which we shall venture to offer. The first of these trials consists in obliging the accused person to drink three draughts of the water in which the images of the Sun and other deities have been washed; and if within fourteen days he has any indisposition, his crime is considered as proved. In the other species of ordeal alluded to, the persons suspected of theft are each made to chew a quantity of dried rice, and to throw it upon some leaves or bark of a tree; they, from whose mouth it comes dry, or stained with blood, are deemed guilty, while those who are capable of returning it in a pulpy form, are at once pronounced innocent. When we reflect upon the superstitious state of these people, and at the same time, consider the influence which the mind, under such circumstances, is capable of producing upon the functions of the body, it is impossible not to admit that the ordeals above described are capable of assisting the ends of justice, and of leading to the detection of guilt. The accused, conscious of his own innocence, will fear no ill effects from the magical potation, but will cheerfully acquiesce in the ordeal; whereas the guilty person, from the mere uneasiness and dread of his own mind, will, if narrowly watched, most probably discover some symptoms of bodily in-

disposition, before the expiration of the period of his probation. In the case of the ordeal by *rice*, a result, in correspondence with the justice of the case, may be fairly anticipated on the soundest principle of physiology. There is perhaps no secretion that is more immediately influenced by the passions than that of saliva. The sight of a delicious repast to a hungry man is not more effectual in exciting the salivary secretion, than is the operation of fear and anxiety in repressing and suspending it. If the reader be a medical practitioner, we refer him for an illustration to the feelings which he experienced during his examination before the medical colleges; and if he be a barrister, he may remember with what a parched lip he gave utterance to his first address to the jury. Is it then unreasonable to believe that a person under the influence of conscious guilt, will be unable, from the dryness of his mouth, to surrender the rice in that soft state, which an innocent individual, with an undiminished supply of saliva, will so easily accomplish?

These few examples will suffice to shew that Medical Jurisprudence had an early origin; and yet we are ready to admit that its applications were extremely desultory, and often, from the infant state of the sciences upon which it rested, not only imperfect but erroneous; indeed the question may be very fairly maintained, whether on many occasions the evidence of the physician has not embarrassed where it should have enlightened, and misled where it was called upon to direct the steps of justice. Forensic medicine, however, could scarcely be considered as constituting a branch of legislation, until its utility was publicly recognised, and its assistance legally required. This admission will compel us to assign to

Germany the honour of its origin, for the Medical jurist is first acknowledged, and his services formally required, in the celebrated criminal code framed by *Charles* the Fifth, at the Diet of Ratisbon, in the year 1532, known by the name of the "*Constitutio Criminalis Carolina*," and which still constitutes the basis of the criminal proceedings of the German courts. In the code it is enacted, that medical men shall be consulted whenever death has been occasioned by violent means, whether criminal or accidental, by wounds, poisons, hanging, drowning, or the like; as well as in cases of concealed pregnancy, procured abortion, child-murder, &c. The publication of such a code very naturally awakened the attention of the medical profession, and summoned numerous writers from its ranks. The first of whom were *Bohn (a)*, *Valentini (b)*, *Boerner (c)*, *Kannegeiser (d)*, and *Struppe; Alberti (e)*, *Zittman (f)*, *Richter (g)*, *Teichmeyer (h)*, and *Stark (i)*; some years after whom came *Hebenstreit (k)*, *Ludwig (l)*, and *Fazellius (m)*.

The first German work of any authority is that of *John Bohn*, published in 1689, and entitled "*De*

(*a*) *Bohn, John.* De Renunciatione Vulnerum, 1689, 4to. Amsterdam.
(*b*) *Valentini.* Pandectæ Medico-Legales, 4to. Francof. 1702.
(*c*) *Boerner, Fred.* Prof. Med. Wirtemburg, 1723. Several Dissertations.
(*d*) *Kannegeiser.* Inst. Med. Leg.
(*e*) *Alberti, Michael.* Prof. Med. Hall.-Systema Jurisprudentiæ Medicæ Schneeberg 4to. 1725. tom. vi.
(*f*) *Zittman.* Medicina Forensis, 4to. Francofurti.
(*g*) *Richter.* Decisiones Medico-Forenses.
(*h*) *Teichmeyer.* Institutiones Med. Leg. 4to. Jenæ 1740,
(*i*) *Stark.* De Medicinæ Utilitate in Jurisprudentia, 4to. Helmont, 1730.
(*k*) *Hebenstreit.* Anthropologia Forensis, 8vo. Lipsiæ, 1753.
(*l*) *Ludwig.* Institutiones Medicinæ Forensis.
(*m*) *Fazellius.* Elementa Medicinæ Forensis.

Renunciatione Vulnerum," in which the author attempts to shew what wounds are necessarily fatal. In 1704, the same Professor presented to the profession a forensic work of greater range, for the purpose of giving rules for the conduct of physicians in attending the sick, and in delivering evidence before a court of judicature ; it is entitled "*De Officio Medici, duplici, clinico et forensi.*" At about, or rather previous to the publication of this latter work, the celebrated Pandects of *Valentini* appeared, which form a compendious retrospect of the opinions and decisions of preceding writers on Juridical Medicine. In his preface *Valentini* endeavours to enforce the necessity of cultivating this branch of Medical Science ; and although more than a hundred and twenty years have elapsed, how aptly will his rebuke apply to the medical witnesses of the present age — "*Evenit sæpe ut etiam illi qui magno Archiatrorum Practicorumque felicissimorum titulo superbiunt, in publicis hujuscemodi occasionibus facultatibus, ut Mus in pice, hæreant, ineptisque relationibus facultatibus Academicis non tantum risum moveant, sed et omnem, qua prius gaudebant estimationem protinus amittant.*" This was followed by the works of *Kannegeiser*, and of *Frederic Boerner*, medical professor of Wirtemburg, on various subjects connected with Legal Medicine. The system of *Alberti* of Halle, in six volumes quarto, appeared in 1725. Amongst the numerous questions elucidated by this laborious author, we may particularize those relating to conception and utero-gestation; and the reader will perceive that we have frequently availed ourselves of his opinion upon these points. Nearly cotemporary with *Alberti*, were *Zittman*, *Richter*, and *Teichmeyer*, from whose writings we have also had frequent occasion to extract some

valuable observations. In 1730 the progress of Medical Jurisprudence was very considerably advanced by the publication of the argumentative work of *Storck*, in which the utility of medical knowledge in assisting the operation of the laws, is very ably and warmly advocated. The *Anthropologia Forensis* of *Hebenstreit*, from which we have so frequently derived useful information, did not appear until 1753, and was followed by the *Institutes of Ludwig*, and the *Elements of Fazellius*. In 1781, *Plenck (a)* published his Elementary work on Forensic Medicine and Surgery; and in the following year the first volume of *Haller*'s *(b)* celebrated Lectures on Juridical Medicine, in the execution of which he takes the Institutes of *Teichmeyer* as his text, correcting his errors, and amplifying his opinions. This work was subsequently completed in three volumes. In 1784, *Daniel*, by the title of his work *(c)* published at Halle, first introduced the term of STATE MEDICINE, as expressive of that branch of medical science of which we are now treating. The annals of the close of the eighteenth century are enriched by several important productions; amongst which may be particularized *Conspectus of Sikora (d)*, the *First Lines of Loder (e)*, the *System of Metzer (f)*, and the *Delineations of Muller (g)*. If the reader be desirous of further in-

(*a*) *Plenck*. Elementa Medicinæ et Chirurgiæ Forensis.

(*b*) Vorlesungen über die gerichtliche Arneywissenchaft, 3 v. 8.

(*c*) Bibliothek der Staatsaryneikunde, *i. e.* Bibliotheca of State Medicine.

(*d*) *Sikora*. Conspectus Medicinæ Legalis. Pragæ et Dresdæ, 1792.

(*e*) *Loder*. Anfangsgründe de r Medicinischen Anthropologie und der Staatsarzneykunde 8. Werm. 1793.

(*f*) *Metzer*. System der gerichtlichen arzneywissenchaft. 8 Koningsb. 1793. Latin by *Keuß*. 8 Stend. 1794.

(*g*) *Muller*. Entwurf der gerichtlichen Arzneywissenchaft 2 vol. 8. Frank.

formation respecting the German literature of State Medicine, at this period, we must refer him to the great works of *Schlegel (a)* and *Plouquet (b)*; *Struvius* likewise in his *Bibliotheca Juris*, (vol. i. p. 172) refers to the work of *Andreas Otto Goellicke*, Frankfort, 1723, for an enumeration of the numerous medico-legal writers of the earlier part of this age.

During the present century we have received two volumes from the pen of *Metzger*; and in the year 1806, *Knappe* and *Hecker* commenced at Berlin, a periodical publication, under the title of "*Critical Annals of State Medicine*;" some years after which a similar work appeared under the superintendance of *Professor Kopp* of Hanau. In speaking of the periodical works of Germany, we must not omit to mention that conducted by *Dr. Scherf*, Aulic Counsellor at Detmold, under the title of "*Contributions to the Archives of Medical Police*," which extended to eight volumes, and was afterwards continued under the appellation of "*Isis*," or *Journal of Medical Jurisprudence and Police.*" To the catalogue of writers already enumerated, we might add many more; but having cited the most celebrated works we consider it unnecessary to adduce farther demonstration of the indefatigable and laborious industry of the German literati.

The middle of the sixteenth century may be stated as the epoch at which the subjects of Medical Jurisprudence first excited much attention in the schools of Italy. The earlier writers, however, would appear to have studied the science rather with casuistical, than physiological views. *Fortunatus Fidelis*, who

(*a*) Collectio Opusculorum selectorum ad Medicinam forensem spectanium, curante. F. C. T. Schlegel. Leipsic 1789—1800.

(*b*) Bibliothèque Medicale.

has been regarded as the father of the Medico-legal literature of Italy, first published his work "*De Relationibus Medicorum*," at Palermo, about the period above stated; it was afterwards republished at Venice, and lastly at Leipsic, under the care of *Paul Amman*, Professor of Botany and Physiology in that University. It consists of four books, of which the following may be received as an outline of the contents, *viz.* I. On Public Food; the Salubrity of the Air; Pestilence. II. Wounds; Pretended Diseases. Torture; Injuries of the Muscles; Medical Errors. III. Virginity; Impotence; Hereditary Diseases; Pregnancy; Moles; the Vitality of the Fœtus; On Birth; Monsters. IV. Life and Death; Mortality of Wounds; Suffocation; Death by Lightning and Poisoning.

Amongst the earliest dissertations which appeared on questions connected with the subject of Jurisprudence, and which merits notice on this occasion, is one by *Frederic Bonaventura*, an eminent scholar and physician of Urbino, in Italy, who flourished in the early part of the seventeenth century, entitled, "*De Natura partus octomestris, adversus vulgarem opinionem, libri decem.*" Francof. 1601; an enormous folio volume, containing upwards of one thousand pages, on this uninteresting subject; in which he has introduced the opinions of different writers, and an account of all the controversies that have been held on the legitimate period of utero-gestation. The most celebrated however of all the Italian works which have descended to us, is that of *Paul Zacchias*, *(a)* physician to Pope Innocent the Tenth, who

(*a*) Quæstiones Medico-Legales, in quibus omnes materiæ medicæ quæ ad legales facultates videntur pertenere, proponuntur, pertractantur, resolvuntur. Tom. ix. Romæ 1621.

was long considered as the only arbiter of questions relating to any of the subjects of Juridical Medicine. The estimation in which this work was universally held may be easily discovered, from the expressions with which it is mentioned by all cotemporary writers. *Zacutus Lusitanus*, in alluding to its value, exclaims "Emi,—vidi—legi—obstupui"! When we consider the period at which it was written, it must certainly be acknowledged as a very extraordinary work; that it should be overrun with casuistical subtleties cannot be a matter of surprise; the style too is entirely scholastic, full of digression, and prolix passages of erudition, but such was the taste of the age in which it was composed. We are also to remember that at this period, the philosophy of *Aristotle* alone directed the schools, and the doctrines of *Galen*, illustrated by a thousand servile commentators were, according to the judgment of that æra, the only sources from which medical opinions could be legitimately deduced. The study of Anatomy had only then commenced under the guidance of *Vesalius*, *Columbus*, *Fallopius*, and *Eustachius*; while Surgery, notwithstanding the labours of *Paré*, *Arceus*, *Andrew Dalla Croce*, *Aqua Pendente*, and other masters, was in its mere infancy. Chemistry too was as yet full of conceit and uncertainty; and Pharmacy was absolutely without any acknowledged principles. As the great work of *Zacchias* was composed at different periods, with considerable intervals between each, we find numerous repetitions, and contradictions. It is therefore evident, that although the "*Quæstiones Medico-legales*" may afford much instruction to the learned physician, it can be of no service to the student; this opinion is justly expressed by "*Camerarius (a)*—

(*a*) Systema Cautel. Medicar. p. 579.

Quisquis Pauli Zacchiæ opus legere cum fructu voluerit, insigni jam rerum medicarum notitia instructus sit oportet; eo magis quod alia sit modernæ Medicinæ facies; ditissimus enim thesaurus est liber iste, supplendus tamen subinde ex aliis fontibus recentioribus."

Barnardin Ramazzini, having been struck with the numerous accidents which had occurred to Nightmen, was induced to direct his attention to the causes and nature of the asphyxia by which they perished, and to extend his investigation to the maladies to which the artisans in every profession were more peculiarly subjected. He accordingly, in the year 1700, published at Padua, an excellent treatise on these affections, entitled "*De Morbis Artificum Diatriba*," a work which has retained its credit as a standard production, and to which all subsequent works on the same subject have been very largely indebted. It was translated by *Fourcroy*, who also enriched it with many valuable notes in 1777. It has also been presented to the public in many other countries, at different periods, and under various forms; as by *M. Hecquet*, 1740; *Skragge*, in 1764; *Bertrand*, in 1804; *Gosse* of Geneva, in 1516; and *Patissier*, in 1822.

In 1749, Professor *Beccaria*, of Bononia, published his work entitled *Scriptura Medico-Legalis*, and *Bononi* in his *Istruzioni Teorico pratiche di Chirurg*: entered with considerable minuteness into the subject of Forensic Surgery, especially in its relations to wounds. The later production however, of *Giuseppe Tortosa (a)*, the disciple of *Caldani*, must be considered as the most elaborate and scientific of all the

(*a*) "Istituzioni di Medicina Forense di *Giuseppe Tortosa*, Professore Medico della Commissione Dipartimentale di Sanita del Bacchiglione. Vol. ii. Vicenza, 1809.

Italian works on Medical Jurisprudence. The reader will find that we have frequently referred to this author; and it is just to state, that during the progress of our labours we have derived from him no inconsiderable assistance, in ascertaining the sentiments of the Medical Jurists of the Italian school, upon various casuistical as well as physiological doctrines. The work is professed to have been written with the sanction of his master, *Caldani*, and under the auspices of *Franck* of Pavia, and of *Plouquet* of Turin. He includes in his plan such subjects only as relate to Forensic Medicine, excluding those which belong more correctly to the department of Medical Police. The work is divided into three parts, *viz.* 1. Comprehending all the principal objects of *Ecclesiastical* jurisdiction. 2. Subjects relating to the *Civil* courts. 3. Those which relate to the *Criminal* courts. The subdivisions of each part are arranged in the following order. PART I.—Conjugal Impotence—Conjugal Rites.—Monstrous Births.—Hermaphrodites.—Magic.—Of Persons possessed of Spirits.—Miracles.—Ecclesiastical Fasting. PART II. Age.—Pregnancy.—Birth.—Superfœtation.—Cæsarean Operation.—Simulated and Dissimulated Diseases. PART III. Of Deflowering.—Sodomy.—Torture.—Legal Examination of Wounds, and Dead Bodies.—Poisoning.—Infanticide—Homicide by wounding.—Fœticide.—Accidental Death.

The application of Medical science to jurisprudence may, practically considered, be said to have commenced in France about the time of Francis I; but it was not until after the publication of the *Constitutio Criminalis Carolina*, that the French government, unwilling to allow their criminal code to remain less perfect and refined than that of their continental

neighbours, decreed that the assistance of physicians and surgeons should be legally required; and which was at length rendered still more peremptory by letters patent granted by Henry IV, in 1606, conferring upon his first physician the privilege of nominating surgeons in every town to the exclusive exercise of this important duty; and Louis XIV. in 1667, after having formally declared, that all Reports which had not received the sanction of such an officer should be invalid, ordered by a decree, in 1692, that a physician shall always be present with the surgeon, at the examination of a body *(a)*; the surgeons, however, of those times were not distinguished by the knowledge which they now possess; hence, in every thing that did not directly involve surgical discussion and practice, their reports were frequently defective. Magistrates were consequently induced to summon the more learned physician to the assistance of the Juridical Surgeon, long before it was enforced by the law; a practice, which like many others, acquired force and regularity from repetition.

Ambrose Paré is acknowledged as the first French writer on the subject of Juridical Medicine, and his treatise on Reports, published in 1575, was, for nearly a century, regarded as the only standard authority upon these occasions; it was, however, at length, to a great degree, superseded by the more accomplished treatises of *Gendri* of Angers, in 1650, of *Blegni* of Lyons, in 1684, and of *Deveaux* of Paris, in 1693. This latter work is one of very considerable merit, especially as it regards the diagnosis and prognosis of wounds.

(*a*) Traité de Med. Leg. par *Foderé* Vol. I.

The eighteenth century, says *Foderé (a)*, an æra remarkable for the conversion of the human mind from the enthusiasm of poetry and the fine arts, to the cultivation and study of the exact sciences, must be considered as the auspicious dawn of medico-legal knowledge in France. The spirit of emulation which animated the rival schools of Surgery and Medicine, produced men, who enlightened by their talents every department of the science of Medicine. Professor *Louis*, Secretary to the Academy of Surgery, taught publicly in the schools the art of resolving different questions in medical jurisprudence, which previous to his time had never been practised. Numerous memoirs on its various branches appeared in succession; eloquence allied itself to science, and their combined efforts were displayed in this novel mode of benefiting mankind. Upon the great principles of justice and humanity which presided at the reform of the penal code, chairs of medical jurisprudence were established in all the faculties of medicine. In 1788, *Louis* published at Paris his letters on the certainty of the signs of death, in answer to the dissertations of *Winslow* and *Bruhier*; and of whose judicious remarks we have availed ourselves in the discussion of the subjects of "Real and Apparent Death." (*Vol. II. p.* 15). To the same author we are also indebted for memoirs on Drowning, and on the means of distinguishing Suicide from Assassination in cases of death by suspension. His Consultations on the celebrated causes of *Monbailly*, *Syrven*, *Calas*, *Cassagneux*, and *Baronet*, which are recorded in the "*Causes Célébres*," must serve to exalt him still higher in our estimation. *Winslow* engaged his talents in the investigation of the Cæsarean Operation, including its moral, political, and reli-

(*a*) Traité de Med. Leg. T. i. Introduct. xxxiv.

gious relations. *Petit* and *Bouvart* entered the field as controversialists, and disputed the opinions of *Louis* on protracted pregnancy, with considerable ability. The former of these philosophers wrote also several memoirs on the phenomena of suspension and strangulation; he, moreover, examined the question relative to the signs of death from abstinence. *Lorry* discussed the question of survivorship with great acuteness and judgment. *Salin* attempted to deduce from the character of the organic lesions, an inference with respect to the nature of the poison that inflicted them; and he illustrated this opinion in an elaborate memoir on the research of the traces of poison on the body of *Lamotte*, sixty-seven days after it had been deposited in the earth; in which he decides that the death was occasioned by *corrosive sublimate*. (*a*) And although the nice distinctions which this ingenious writer laboured to establish never had any existence but in his own imagination, yet the agitation of so important a question was by no means unprofitable; it directed the attention of the physician to the state of the organic lesions, and has ultimately led to some useful conclusions. While *Salin* was thus engaged on the subject of poisoning, *Lafosse* sought to distinguish the phenomena produced by death, from the traces of violence inflicted during life upon the body. He, moreover, developed the unequivocal signs of pregnancy and parturition. *Professor Chaussier*, in the year 1789, by a memoir, to the Academy of Sciences at Dijon, on the great importance of the study of juridical medicine, excited a spirit of emulation which was productive of the highest advantage. At about this period also the me-

(*a*) Recueil periodique de la Société de Médecine, tom. vii, p. 343.

morable "*Encyclopédie Méthodique,*" was undertaken, in which the celebrated authors already named contributed their powerful assistance, in conjunction with *Professor Mahon*, in compiling the elaborate articles upon Medical Jurisprudence. Such were the materials, says *M. Foderé*, which enabled me to publish my first systematic work (*a*) on this science in the year 1796.

In the first few years of the present century the science of juridical medicine received numerous contributions from the French physicians. *M. Vigné*, of Rouen, published in 1805 his humane and enlightened reflections upon its practical applications; a work which bears internal evidence of the science as well as the judgment of its author. In the year 1807, the system of *Professor Mahon* appeared, not, however, until after the death of its author; *M. Fautrel* having undertaken the charge of arranging the manuscript, of illustrating it with notes, and of giving it to the world. (*b*) Nearly at the same time the small, but useful work of *Belloc* (*c*) was published; and in the following year *Marc* (*d*) translated the German manual of *Rose* on juridical dissection, and enriched it with original observations; to which he also subjoined two memoirs on the obscure subject of the "*Docimasia Pulmonaris.*" We have deemed it necessary to introduce to our readers this slight sketch of the literary history of Medical Jurisprudence in relation to its progress in the several countries of Germany, Italy,

(*a*) Les Lois eclairées par les Sciences Physiques; ou Traité de Médecine Légale, et d'Hygiène Publique, tom iii. 8vo, Paris.

(*b*) Médecine Légale, et Police Médicale, de *P. A. O. Mahon*, Professeur de Med. Leg. etc. avec quelques notes de *M. Fautrel.*

(*c*) Cours de Médecine Légale, Theoretique et Pratique, de *J. J. Belloc*, Chirurgien à Agen, 1 vol. in 12mo.

(*d*) Manuel d'Autopsie cadaverique Medico-Legale, &c. 2 vol.

and France; for much of the information thus afforded we are indebted to the elaborate system of *Professor Foderé*, (*a*) published in six volumes, in the year 1813, and which must be regarded as a new work, rather than the republication of that already noticed, as having appeared in 1796. From this voluminous treatise we have frequently, in the progress of our present undertaking, made copious extracts. It becomes our duty therefore to present our reader with some account of the extent of its objects, and the order of their arrangement. The author divides his work into three parts, viz. the *First* comprehending subjects of a mixed nature, or those which admit of application to civil as well as criminal cases, "*Médecine Légale mixte.*" The *Second* exclusively relating to criminal jurisprudence, "*Médecine Légale Criminelle;*" and the *Third*, to medical police, "*Médecine Légale Sanitaire.*"

The work opens with a learned introduction, in which the importance of the science is fairly examined, and its history pursued with much detail, from its origin, to the period at which the author wrote. The qualifications of the forensic physician are also considered, and the different circumstances opposed to the success of his labours, enumerated and appreciated. Then follow in succession the subjects of the first division, viz. the different ages of human life, puberty, minority, majority, with the anomalies to which the natural growth and developement of the body are liable. Personal identity and resemblance. The relative and absolute duration of life. The grounds of prohibition in testatorship, such as habitual, periodical, and temporary insanity; suicide;

(*a*) Traité de Médecine Légale et d'Hygiène Publique, ou de Police de Santé, par *F. E. Foderé*, Docteur en Médecine.

deaf and dumb state; somnambulism; intoxication. The qualifications of testators and witnesses. Marriage and divorce. Pregnancy, true and false. Parturition, and the signs denoting the death of the fœtus in utero. Paternity and filiation. Premature and retarded births. Monsters. Hermaphrodites. Survivorship. Signs of real and apparent death. Treatment of the different varieties of Asphyxia. Certificates of exemption, and diseases which exempt. Feigned, dissimulated, and imputed maladies.

The *Second* division commences with the third volume, and includes, in their respective order, chapters on the examination of bodies found dead. The distinction of assassination from suicide. Wounds. Poisoning. Rape. Abortion. Concealment and substitution of the offspring; and Infanticide.

The *Third* division, with which the fifth volume commences, successively treats of the preservation of the human species, and of the means of remedying its physical degeneracy. Contagious, hereditary, and epidemic diseases, and the precautions to be adopted against them. The medical police of cities, with regard to aliment, arts, manufactures, and attention to the sick. Military and naval hygiène; and, lastly, the medical police of hospitals and prisons.

No work of similar calibre had been previously published, and its execution is a sufficient proof of the profound erudition and sterling ability of its author; but it is by no means calculated to assist the inquiries of the English physician. It is often unnecessarily prolix and minute, and is adapted only to the judicial courts of the continent. Since its publication numerous writers on detached questions have sprung up, and thrown much additional light on their obscurer points. The subject of poisons has been very

ably elucidated by the researches of *Professor Orfila*(*a*), and in a work (*b*) still more recently published by that distinguished professor, the applications of Toxicological Science to Forensic inquiries have been more minutely considered.

The subjects of conception and delivery, with the various questions to which they have given origin, have been very ably discussed by *M. Capuron*; (*c*) from whose work it will be perceived we have derived much satisfactory information.

After the historical view which we have taken of the continental literature of the subject, we fear that the labours of our own countrymen, in this department of science, will suffer a disparaging comparison; and yet we trust that any temporary feeling of inferiority and humiliation thus excited, will easily yield to the just conception of the circumstances to which the neglect of the subject is to be attributed.

Although numerous questions connected with objects of forensic inquiry had been discussed and illustrated in the various periodical journals of Great Britain, yet no work, professing to treat of Medical Jurisprudence, appeared previous to the small and imperfect production of *Dr. Farre* in 1788, entitled "*Elements of Medical Jurisprudence*,"(*d*) and which was rather

(*a*) Toxocologie Générale considérée, sous les Rapports de la Physiologie, de la Pathologie, et de la Medicine Légale.

(*b*) Leçons faisant Partie du Cours de Médicine Legale, de *M. Orfila*. A Paris, 1821.

(*c*) La Médecine Légale, relative a l'Art des Accouchemens, par *J. Capuron*, Docteur en Médecine, &c. Paris, 1821.

(*d*) "Elements of Medical Jurisprudence, or a succinct and compendious description of such tokens in the human body as are requisite to determine the judgment of a Coroner and Courts of Law, in cases of Divorce, Rape, Murder, &c.; to which are added Directions for preserving the Public Health; by *Samuel Farre*, M.D." 12mo. p.p. 139.

an abstract of a foreign work, than an original essay. The next in succession was a "*Treatise on Medical Police*," by *Dr. Robertson*, in two volumes, published in 1808. In 1815 *Dr. Bartley*, of Bristol, presented us with "*A Treatise on Forensic Medicine*," than which it is impossible to conceive any production more meagre or imperfect. *Dr. Male* (*a*) is undoubtedly entitled to the grateful notice of the medical historian, as the author of the first respectable English book on forensic medicine.

The last, and by far the most comprehensive and instructive work that has appeared in this country, is by *Dr. Gordon Smith*, entitled "*The Principles of Forensic Medicine, systematically arranged, and applied to British Practice.*" London, 1821.

In addition to the above writings, we may record the "*Medical Ethics*" of *Dr. Percival*; which, although not intended, nor indeed calculated for practical instruction, contains some interesting allusions to our subject. Nor must we omit to enumerate the several valuable monographs with which different English physicians have sought to advance the progress of medico-legal inquiry; as, for instance, the celebrated paper of *Dr. Hunter*, "*On the Uncertainty of the Signs of Murder in the case of Bastard Children;*" *Dr. Haslam's* intelligent and judicious essay "*On Medical Jurisprudence, as it relates to Insanity, according to the Law of England;*" and *Dr. Hutchinson's* laborious "*Dissertation on Infanticide.*"

Some of the more important subjects of Public Health, received also early notice, and were very

(*a*) "Elements of Juridical or Forensic Medicine; for the use of medical men, coroners, and barristers," by *George Edward Male*, M.D. Second edition. London, 1818. The first edition of the above work was published under the title of "Epitome," in the earlier part of 1816.

ably investigated by our physicians. The plan of ventilating the holds and lower decks of ships, as proposed by *Sutton* in 1739, must have fallen into total neglect, through the unaccountable prejudice of the Admiralty, had it not received the powerful support of *Dr. Mead*, by whose advice experiments were publicly made, the success of which was, in the year 1741, acknowledged in an order of his Majesty that all vessels belonging to the Navy should be provided with ventilators. About the same period *Hales* published his celebrated memoir on the various causes which influence the health of seafaring men, and on the precautions necessary to be taken to prevent those maladies which frequently display themselves in ships and other confined situations; among which modes of safety the most important was a plan of ventilation by means of very ingenious bellows, and which were used with much success in the prisons of Porchester castle, Winchester, and Newgate; (*a*) and in the several hospitals of London, Bristol, and Northampton.

In the year 1803, on the presentation of a memorial to his late Majesty's ministers, urging the expediency of a Professorship of Medical Jurisprudence, in the University of Edinburgh, a Chair was endowed, and *Dr. Duncan, junior*, appointed to fulfil its duties; which, for many years he has continued to perform, with infinite credit to himself, and with equal advantage to the University and to the public. In the schools of England we continue to suffer from the want of such an establishment; *Dr. Harrison*, a few years since, read some lectures on the subject in the Medical Theatre of Windmill street; and *Dr. Gordon Smith*,

(*a*) See Vol. i. p. 125. *Note.*

has announced his intention of devoting himself to the duties of a public lecturer on Medical Jurisprudence. *Dr. Elliotson* has also lately published his "Introductory Lecture of a Course upon State Medicine," which he proposes to deliver in the Anatomical Theatre in Southwark.

But it has been demanded, and in a tone, as it would seem, suggested by the feelings of mortified pride and disappointment, how it can have happened that in Britain, a country distinguished above all others for the unceasing jealousy and circumspection with which every thing that even remotely interests the life and comfort of the subject is scrupulously regarded, a science so peculiarly calculated to control the disorders of the social system, to rescue innocence from infamy or death, and to lead to the detection and punishment of crime, should for so long a period have been imperfectly appreciated, and utterly neglected?

The answer to the charge is obvious, and, we trust, satisfactory. The progress of medical knowledge, including its collateral branches of science, can only within a few years be said to have rendered its applications available to the laws; while the spirit of British liberty and independence not only resists the perpetual intrusion of authorities, so necessary in other countries for the preservation of the public health, but insures, without the aid of legal enactments, all the benefits which can accrue from domestic cleanliness and attention. (*a*) But upon each of these points it will be necessary to offer some farther remarks.

(*a*) For a striking illustration of this truth we have only to refer the reader to the facts detailed in the note at page 102, in the first volume of the present work.

That the evidence afforded by an improving, but still precarious and imperfect physiology, should have been indiscriminately received at the tribunals of those countries where the decision of questions of justice is too often influenced, and even directed by the subtleties of casuistry, may be regarded as a subject of regret, but can scarcely excite the feeling of astonishment. Nor can we, on the other hand, be surprised to find, that the extreme jealously of the British courts of judicature should have resisted testimony which admits of being depreciated, or in any degree rendered questionable, by the doubtful controversies of science. So rapid, however, has been the progress of the leading branches of medical knowledge during the last ten years; and so successfully have they disentangled themselves from the many fatal fallacies with which they were encompassed, that the general prejudice against their practical utility, in advancing the administration of justice, must gradually subside, and the study of forensic medicine become universally popular. To strengthen our conviction upon this point we have only to compare the evidence of medical men, as delivered in the courts of justice during the last, and present century. Even so late as the period of *Sir Thomas Browne*, we find that learned physician bearing public testimony to the reality of diabolical illusions, and occasioning, by his evidence, the conviction and condemnation of two unfortunate persons, who were tried at Bury St. Edmonds before the Lord Chief Baron *Sir Mathew Hale*, on the capital charge of bewitching the children of a *Mr. Pacey*, and causing them to have fits! (*a*) In

(*a*) *Sir Thomas Browne* was, upon this occasion, called upon by *Sir Matthew Hale* to give his judgment; upon which he declared, that "he was clearly of opinion that the fits were natural, but heightened by the

examining the chemical evidence in cases of poisoning, let us only compare that which was given by *Dr. Addington* on the trial of *Mary Blandy*, at Oxford in 1752, (*see Appendix, p.* 236) with that which has been delivered on any of the trials of the present day. Compare again the nature of the physiological evidence which has been received as satisfactory and conclusive, in cases of infanticide, with that which is acknowledged by the most distinguished physicians of our own times to be wholly inadequate to establish even a presumption of guilt.

With regard to the next point under consideration, viz. the expediency of an extended system of medical police in a free country like Great Britain, we have only to observe that, if we examine the extent of such institutions in the different states of Europe, we shall find it universally conformable with the genius, circumstances, and necessities of each government. Sweden, for instance, a country which from position, climate, and population, is relatively feeble, has found it necessary, for its very existence, to cultivate with assiduity the few resources which nature has bestowed upon it; and, hence, by a well digested system of medical statistics, (*a*) it

devil, co-operating with the malice of the witches, at whose instance he did the villainies," and he added, "that in Denmark there had been lately a great discovery of witches who used the very same way of afflicting persons by conveying pins into them." This relation of *Sir Thomas Browne*, says the historian of the case, made that good and great man, *Sir Matthew Hale*, doubtful; but he would not so much as sum up the evidence, but left it to the jury with prayers that the great God of Heaven would direct their hearts in that weighty matter. The jury accordingly returned a verdict of guilty; and their execution was amongst the latest instances of the kind that disgrace the English annals.

(*a*) Sweden is particularly distinguished for the accuracy of its bills of mortality. Exact accounts have been taken of the births, marriages, and burials, and of the numbers of both sexes that died at all ages in

has been enabled to achieve extraordinary and brilliant actions, and to repair immense losses which it would otherwise have been unable to survive.

In Paris there exists a complete system of "*Assainissement*," or police for the preservation of the public health. Its administration devolves upon *M. le Préfet de Police*, who for some years resorted to chemists and physicians for advice upon the different questions that might arise; upon such occasions, however, it is evident that he could only obtain that isolated advice, which, for want of having been properly discussed, was frequently arbitrary and weak; he had indeed sometimes temporary commissions, which were formed when any important problem was to be solved. In the year 1802 a council of health was, on the recommendation of *M. Cadet de Gassicourt*, permanently established. At first it only consisted of four members; but the new avocations required day by day, so multiplied their labours, that they were compelled in 1807 to increase the number of members composing it to seven; and the particular attention necessary to be paid to epidemical diseases determined *M. le Préfet* to add to it two physicians. The duties of this council of health were, to watch over all insalubrious manufactories and workshops; to collect observations on epidemics, and on the sources from whence they arose. They had, moreover, the charge of superintending the cleansing of the markets, rivers, slaughter-houses, butchers offal, burying-places, sewers, &c. and also of inspecting the public baths;

every town and district; and also at the end of every period of five years, of the numbers living at every age. At Stockholm a society was established whose business it was to superintend and regulate the enumeration, and to collect from the different parts of the kingdom the registers, in order to digest them into tables of observation.

the manufactories of the artificial, and the depots of the natural mineral waters; the amphitheatres for dissection; of making statistical researches on the bills of mortality; on the means of rendering the theatres, hospitals, and other public places more salubrious; on the best system for heating and lighting; on the composition of secret remedies; suspected vessels, &c. When this council received its definite organization, it was composed of the following persons, whose names are a sufficient guarantee of the ability with which the duties of the establishment must have been performed—*M. D' Arcet*, *M. Le Chevalier Cadet de Gassicourt*, *MM. Deyeux*, *Berard*, *Huzard*, *Leroux*, *Dupuytren*, *Pariset*, *Petit*, *Marc*, and *Girard.*

An establishment similarly constituted in this country, that should from time to time report its labours to the home department, would without doubt be attended with much advantage, and might suggest many police regulations highly conducive to the health and welfare of the community.

Of the severity of the French system of police, "Pharmaco-legale," the reader may form some idea, when we inform him that, during the progress of the present work through the press, an apothecary of Verdun has been fined three thousand francs, for selling sulphuric acid to a woman who had poisoned herself with it. We are very far from objecting to such a system, especially where the respectability and knowledge of the vender are not guaranteed by an adequate power vested in some medical corporation. In Germany a mistaken policy exists of regulating every thing connected with health by the law, and which has led to the formation of a cumbrous code of contradictory, and often, injurious enactments.

The legislature of Britain has been accused of apathy upon all subjects in which the prosperity of commerce is not involved, and upon such occasions it is said to display a morbid vigilance and activity; "so truly mercantile are the English," observes *Professor Raynal*, "that they mix up commerce with their philosophy, and even with their religion;" as a proof of this, he instances *Mr. Locke*, who, amongst his arguments for converting the Indians, adds that, "by being thus induced to cover their naked bodies, they would add to the consumption of British manufactures." We do not admit the allegation, and may be allowed to ask, in what country the fruits of commerce are more liberally devoted to the encouragement of science, or to the promotion of religion? In truth, the benefits which are enforced by the legal enactments of other countries, are in England the spontaneous consequence of individual liberality; and what is that repose which the jealousy of our rival neighbours has denominated apathy, but the placid expression of satisfaction experienced by the whole community at the active liberality of the numerous individuals of which it is composed? We are, nevertheless, willing to admit that occasions do exist in which the interference of the legislature might be made subservient to the preservation of the public health; and, in the course of our work, we have not felt any hesitation in directing the attention of the reader to their several merits. We have, in particular, recommended some enactments in cases of epidemic disease. Under such circumstances of public calamity the people naturally look for the sympathy and support of their government; and the general confidence inspired by a public act, however unimportant in itself, will always be attended with advant-

age ; it will have the tendency to diminish the susceptibility of the people, and to limit the ravages of disease. The sages of ancient Rome were deeply sensible of this important fact in the œconomy of the people ; whenever, therefore, their city was threatened with pestilence, a dictator was elected with great solemnity, for the sole purpose of driving a nail into the wall of the temple of Jupiter; and thus, while they imagined that they propitiated an offended deity, they diminished the susceptibility to disease, by appeasing their own fears.

Much benefit might also be conferred on the operative classes of society, by some judicious enactments that should ensure the adoption of the various plans of safety and protection, which science has from time to time discovered for the advantage of those who are engaged in the more dangerous occupations and manufactories ; but which, from the apathy of some, and the prejudice of others, have been either heedlessly neglected, or illiberally and insolently repulsed. The blind opposition, which such inventions meet with, is well illustrated in the history of the *safety lamp* of *Sir Humphry Davy*, an instrument which has completely succeeded in use, and yet such is the obstinacy of the miners, that many of them continue to expose their own lives, and those of their companions, by carrying open lanterns about the galleries of the mines. The author of the present work has personally experienced the same mortifying insensibility and opposition, in his attempts to prevent the awful accidents that so frequently occur in the mines of Cornwall, from the premature explosion of gunpowder, (*a*) in the operation of blasting rocks.

(*a*) See a memoir in the first volume of the Royal Geological Society of Cornwall, entitled " On the Accidents which occur in the Mines of

In the processes of *needle-pointing* and *dry-grinding*, the artisans rarely live many years, in consequence of the organic mischief produced in the pulmonary organs, from the fine metallic particles that are inhaled during the operation; to obviate such a source of danger, the Society of Arts offered a premium for any invention that might afford security, and their gold medal was, in consequence, presented to *Mr. Abraham*, of Sheffield, for his "*magnetic guard.*" Notwithstanding the expediency of this apparatus, we understand that the greatest opposition has been manifested by the workmen to its introduction. From the extreme danger of the process their wages are very high, and they fear that the adoption of any system that may diminish the risk will be followed by a corresponding reduction in their pay.

Surely such a subject well deserves the attention of the legislature. In France the *Prefet de Police* would prohibit the carrying on of such arts, unless every means of safety were applied. Such a measure was adopted in the case of the *water-gilders* in Paris, who hesitated to employ the means of ventilation suggested by *M. d'Arcet* for their security. It is not our intention to recommend a jurisdiction so absolute and summary, but some enactments should be framed that might secure the safety of the artisan, without infringing upon the liberty of the subject.

Wherever governments have interfered for the purpose of encouraging and rewarding, or of prohibiting and restraining, particular medical opinions or practices, the inexpediency of such interference has generally been soon discovered and demonstrated. What could have been more absurd than the attempt

Cornwall, in consequence of the premature explosion of gunpowder in blasting rocks, and on the methods to be adopted for preventing it, by the introduction of safety bars, by *J. A. Paris*, M.D. &c."

of the French parliament to proscribe the use of antimony, (*a*) or the sale of poppy oil; (*b*) or the enactments of the different governments of Europe to restrain the custom of smoking tobacco. (*c*) The pension conferred by the French government upon *M. Sigault* (*d*) for the invention of a new mode of facilitating delivery, in cases of difficult parturition; and the medal which was struck to commemorate it, were measures not less inconsiderate and absurd than the vote, by our own parliament, of five thousand pounds to *Mrs. Stephens* for the supposed discovery of a medicine that could dissolve a calculus in the bladder. But it may be said that we are reasoning against the propriety of a practice from its abuse--That may be very true; but our object is to shew that such a practice is pre-eminently exposed to fallacy and abuse. We profess ourselves, generally, hostile to the policy of remunerating medical discoveries, as they have been termed, by grants of money; although we cheerfully tender our homage and thanks for the great service rendered this country and the world, by the liberal support which the government has afforded to the cause of vaccination; and were the minister even now to withdraw the necessary supplies for the continuance of the vaccine board, the consequences that would, under such circumstances, ensue, afford a subject of the most awful consideration.

According to the view which we have taken of the subject of medical police, as necessary to the welfare of this country, our attention is necessarily directed to the Royal College of Physicians, as the only legitimate source from which the government is to derive

(*a*) See the author's Pharmacologia, edit. v. *Hist. Introd.* vol. i, p. 92.
(*b*) Ibid. vol. ii, p. 330. art. *Papaveris Capsulæ.*
(*c*) Ibid. vol i, p. 53, note.
(*d*) See vol. i, p. 260, *note.*

its information, and the public their protection. No apology therefore can be necessary for the minute research by which we have endeavoured to ascertain and establish their existing rights and privileges. Under any circumstances it must be an object of the first importance to the profession, but at the present period the inquiry would seem to be marked with a more than ordinary degree of interest, as the anticipated removal of the College, and the increased attention which has been recently drawn to the subject, appear to promise considerable improvements not only in the interior arrangement of that learned body, but also in their public relations.

His present Majesty has afforded an early instance of his regard for our principal medical corporation, by an act of favour no less important to the institution, than honourable to the learned and distinguished physician who presides over its rights and interests, as will appear by the following

ROYAL LETTER.

" The King desires Sir Henry Halford, " as President of the Royal College of Physicians, to " announce to the College assembled, that it is the " King's pleasure in future, that the President for " the time being, should always hold the office of " Physician in Ordinary to His Majesty. The King " has great pleasure in making this communication " during Sir Henry's Presidentcy, from the sincere " regard He entertains for him, and the very high " estimation in which He holds his character and " abilities.

" Signed. G. R.

" *Carlton House,*
" *Jan.* 18*th*, 1822."

To which the College voted the following Address.

'TO THE KING'S MOST EXCELLENT MAJESTY.

'SIRE,

'We, the President, Elects, and Fellows of 'the Royal College of Physicians, humbly approach 'your Majesty with our most grateful acknowledg- 'ments for the mark of Royal favour with which your 'Majesty has been pleased to distinguish us by an 'order written and signed by your Royal hand, ad- 'dressed to SIR HENRY HALFORD, Bart. our Pre- 'sident, commanding him to declare to the College 'assembled your Majesty's Royal will and pleasure 'that every future President of the College of Phy- 'sicians, for the time being, shall hold the office of 'one of your Majesty's Physicians in Ordinary.

'We associate, SIRE, with this mark of your 'Royal kindness the pleasing remembrance of the 'circumstances of our original foundation by your 'Majesty's illustrious predecessor King *Henry* the 'VIII, and dare to presume from so gracious a proof 'of your confidence in us, that your Majesty enter- 'tains a favourable opinion of our institutions and 'discipline, as calculated to make our profession 'respected in this country, above what it is in any 'other part of Europe, and most capable of forming 'a Physician worthy to be placed near the sacred 'person of the King.

'To our President, SIRE, we entrust this expression of our dutiful thanks, our loyalty, our attachment, and devotion to your Majesty, and we pray that no weight of cares which your Majesty's great office imposes upon you may prove injurious to your health; and that Providence in His infinite goodness, may continue to watch over a life so highly important to the welfare, and happiness of your kingdoms.'

It now only remains for us to offer some observations upon the plan and execution of the work before us.

The classification of the various topics of forensic medicine has ever been a fertile source of controversy; and we will venture to assert that, from the diversity, as well as versatility of the numerous subjects involved in the study of medical jurisprudence, no arrangement can ever be constructed which shall vie, in perspicuity and precision, with that of most branches of natural science, the objects of which, however numerous, maintain a mutual relationship, and admit of being displayed in a striking and natural order of connection. If an arrangement be attempted to meet the legal view of the subject, such, for instance as that proposed by *Professor Plenck*, of Vienna, and adopted by *Tortosa* and many others, viz. of distributing the subjects according as they relate to the *criminal*, *civil*, or *ecclesiastical* court, we shall immediately perceive that the same subject will frequently belong with as much propriety to one division, as to another, and may require to be considered under all;

thus, insanity must come before a *civil* court when the person is supposed incapable of managing his own affairs; and before a *criminal* tribunal, when the soundness of a murderer's intellect is disputed. *Professor Foderé*, it must be admitted, escapes from this difficulty by creating, under the term "*Medecine Lègale mixte*," a division that comprehends subjects appertaining at once to the civil and criminal law; but it will be immediately perceived that such a scheme is far too general and indefinite to ensure the advantages of systematic arrangement, or even to merit the appellation of a classification. If, on the other hand, an arrangement be projected upon purely physiological and pathological principles, such as that adopted by *Valentini*, in his "*Corpus juris Medico-legale*," and which was followed by *Roose*, and very lately preferred by *Dr. Elliotson*, (*a*) we shall find that similar embarrassments will arise, with respect to their legal relations, as we have just stated must attend their physiological bearings, where the basis of the classification has an exclusive reference to the law. The same objections will apply to the divisions of our respected cotemporary *Dr. Gordon Smith*, who appears to have appreciated all the difficulties of the subject, and, like ourselves, to have despaired of the success of any attempt to surmount them. He arranges the subjects of forensic medicine into three parts, viz. 1. *Those which regard the extinction of human life*; particularly by unusual or violent means; such are many kinds of sudden death, and all cases of homicide. 2. *Injuries done to the person, not leading to the extinction of life*; such are disfiguring and maiming, causing diseases, the violation of females,

(*a*) The Introductory Lecture of a Course upon State Medicine. London, 1821.

&c. 3. *Circumstances connected with the physical system, that disqualify for the discharge of civil offices, or the exercise of social functions;* such are mental alienation, the existence of certain diseases, the want of certain organs, &c.

After mature consideration, the arrangement which has been followed on the present occasion, although greatly liable to the many objections which we have so strongly urged against that of other writers, appears to the authors to be the one best calculated to accomplish the mixed objects of the publication. The ample synopsis of this arrangement, as presented in the table of contents prefixed to the present volume, would render any detailed account, in this place, superfluous. We have only to observe that the work is divided into three parts, the *first* comprehending the enumeration of the different medical corporations, with an account of their charters, powers, and privileges, together with the subjects of medical police. The *second*, all those subjects connected with medical evidence, as applicable to *civil* and *ecclesiastical* suits, in which the order of the subject corresponds with that of the progress of human life from infancy to old age. The *third*, the inquiries which are necessary to medical evidence, as applicable to *criminal* cases.

In limiting the boundaries of each division, it will be perceived that we have strictly adhered to the general principle of excluding every topic that had not some direct or constructive relation to the health, life, and physical welfare of the subject. Had we regarded chemistry as synonimous with medicine, and pursued the numerous subjects in which it might be rendered available in the construction, elucidation, and administration of the laws, we should have far exceeded the scope of our labours, and have wander-

ed into a rich and imperfectly explored region, as boundless in its extent, as it is interesting in the novelty and utility of its productions. In this case the subject of patents would have formed a prominent feature in the second division of our work; for so rapid is the progress of chemical science, and so precarious the language by which its growing objects and phenomena are expressed, that, in the present state of the law, it becomes an extremely delicate task to draw the specification of a chemical patent in such terms as to escape the snares which ingenuity is ever ready to invent for its destruction. We cannot, perhaps, better exemplify the truth of this position than by the relation of a case that has lately excited a considerable share of public interest. A patent was granted to *Messrs. Hall* and *Urling*, for a new mode of manufacturing lace. The merit of the improvement turned upon the mode of singeing or burning off the raw ends of the cotton by a flame of gas, which was made to play rapidly through the meshes of the lace, instead of the red hot cylinder, over which it is commonly passed. The infringement of this patent by *Boote* formed the grounds of the action. The defendant stated that he had employed the flame of burning alcohol for this purpose, which not being a *gas*, but a *vapour*, could not be said to fall within the meaning of the plaintiff's specification. Fortunately for the justice of the case, an additional apparatus was required to draw the flame through the meshes of the lace, and, without such a contrivance, the operation whatever might be the nature of the combustible *gas*, or *vapour*, employed, could not succeed; and since it is an acknowledged principle that an adoption of any part is an infringement of the whole, a verdict was returned for the plaintiff. But

suppose the merits of the case had wholly rested, as had been expected, upon the distinction between *gas* and *vapour*; the chemical evidence would no doubt have urged that the one being permanently elastic and incapable of condensation, must be considered as very distinct in its nature from the other which admitted of being condensed into a liquid. Under such a conviction the plaintiff might probably have lost his verdict. But had the same trial, under the same circumstances, been deferred only for a few weeks, the effect of the chemical evidence must have been widely different, *Mr. Faraday* having, within the last month, succeeded in condensing no less than nine (*a*) of these gaseous bodies that were universally acknowledged to be permanently elastic! and thus has this ingenious and indefatigable chemist, by a happy generalization, annulled the supposed characteristic distinction between *gas* and *vapour*.

The subject of forgery, and of frauds upon banker's checques, accomplished by the well-known agency of acids in discharging ordinary writing, would upon the same grounds have been considered as a legitimate object of medical jurisprudence; and we should have proceeded to inquire into the different chemical means by which such frauds might be prevented. (*b*) The subject of nuisances would also have received a more extended notice; and we should not have deemed it necessary to limit our observations upon the detection of fraudulent adulteration to those substances, the purity of which is essential to the

(*a*) Chlorine—Eu-chlorine—Muriatic acid—Sulphurous acid—Nitrous oxide—Carbonic acid—Sulphuretted hydrogen—Ammonia—Cyanogen.

(*b*) See the plan proposed by the author, in the Journal of Science and the Arts, no. xxviii, p. 436.

health of the community. But it is unnecessary to multiply examples in proof of the latitude of the subject, or of the utter impracticability of any attempt to pursue its ramifications in the present work.

In our physiological illustrations we have, upon all occasions, sought to establish general principles for the solution of the various problems of forensic medicine. It has been said that "it is not so much the knowledge of the laws of physiology, as that of the exceptions to which they are liable, that is required in elucidation of abstruse medico-legal questions." If this were admitted, the propriety of such scientific applications might be altogether doubted. "*Leges fiunt de his quæ vulgo, non de his quæ raro eveniunt*; but, in truth, the exceptions of Nature are but apparent—the mere illusions arising from our imperfect view of her phenomena; and will diminish as our knowledge increases, just as the motions of the heavenly bodies cease to appear irregular as soon as their orbits are submitted to a more extended field of observation.

The second volume of our work commences with a physiological research into the "Causes and Phenomena of Sudden Death." To the views developed in this chapter we are the more particularly anxious to direct the attention of the student, as they may be said to constitute the centre, and master-key of forensic physiology; while the obvious importance of their applications, in directing the treatment of asphyxia and cases of poisoning, will convey a striking rebuke to those who still deny the *practical* utility of such researches. We might even extend this remark to the more ordinary duties of the surgical practitioner, and in support of its truth, maintain, that he can neither fully comprehend, nor successfully treat the more im-

portant symptoms which attend injuries of the head, without an acquaintance with those mutual relations which subsist between the functions of the brain and heart, and those of the organs of respiration. To an ignorance of such views we may trace the origin of those discordant opinions which have existed with regard to the proper mode of treating concussion, or compression of the brain. Some practitioners, from having observed that the action of the heart frequently becomes enfeebled on these occasions, have unconditionally insisted upon the necessity of cordials; while others, reasoning upon the state of the brain, have with equal confidence advocated the propriety of immediate and copious depletion by the lancet. Let us see how far a knowledge of the physiological doctrines to which we have alluded will reconcile such conflicting opinions, and point out the proper plan which ought to be pursued in such cases of difficulty.

It has been stated, (*a*) that the first violent impression upon the brain, whether occasioned by an external force, or a "*coup de sang*," from hemorrhage within the skull, will be very liable to produce syncope. This effect, when it occurs, ought of course to be distinguished from the more ordinary symptoms of concussion and compression, and which may be said to approach the nature of suffocation, rather than that of syncope, as they depend upon impeded respiration, from a failure in the action of the muscles which are essential to it. In the former case it would be highly injudicious to resort to the lancet, until the action of the heart shall have been restored by cordials; whereas in the latter, prompt and copious

(*a*) The reader must refer to our chapter "on the Physiological Causes of Sudden Death," p. 23; and to that "on Syncope," p. 25.

blood-letting must be considered as the most effectual of all the resources of art.

For much of the novelty contained in this part of our work, the reader will find that we are greatly indebted to the liberality and friendship of *Mr. Brodie*, who afforded us the assistance of his *Manuscript Notes*, from which he delivered his lectures from the anatomical chair of the College of Surgeons.

With regard to the manner in which the subjects have been individually elucidated, we may venture to hope that, in a work of such extensive range, the reader will scarcely expect to find every department equally elaborate in execution; our discretion on this point has been, in great measure, directed by the degree of importance attached to each subject, and the extent and nature of the popular fallacies with which it is surrounded. In dealing with subjects thus embarrassed we have ever deemed it a great point to clear away every adventitious incumbrance, so as to make a naked circle around the object in dispute, and to afford an uninterrupted view of it on every side. We have, therefore, in pursuance of such a principle, endeavoured to bring the leading points of controversy within the scope of a few prominent questions, that we might discuss the merits of each with a share of attention commensurate with our idea of its importance. The advantages of such a plan will receive, we trust, a favourable exemplification in our history of poisons.

For our numerous quotations, if any apology be necessary, we may offer that of the learned *Tortosa*, deeming it more expedient to incur the charge of scholastic affectation, than to leave our readers in the dark, as to the sources from which we have derived our information, and particularly as we are thus

enabled to furnish the student with various references to which he may advantageously apply for more extended information.

Some writers have objected altogether to the science of Medical Jurisprudence, alleging that it is an unnecessary addition to the already too numerous pursuits of the medical student; to their doctrine we cannot assent, even though so high an authority as a dictum of *Sir Wm. Blackstone* is adduced in its support; the learned commentator says, "for the gentlemen of the faculty of physic, I must frankly own that I see no special reason why they in particular should apply themselves to the study of the law; unless in common with other gentlemen, and to complete the character of general and extensive knowledge—a character which their profession beyond others has remarkably deserved. They will give me leave, however, to suggest, and that not ludicrously, that it might frequently be of use to families upon sudden emergencies, if the physician were acquainted with the doctrine of last wills and testaments, at least so far as relates to the formal part of their execution." It is not merely our object to show that, in common with other gentlemen, medical practitioners should have some general knowledge of the law, without which they cannot in any scene of life discharge properly their duty either to the public or themselves; but to demonstrate, that there are many and intricate branches of law, in which the physician or surgeon, by competent knowledge, may not only materially serve himself in reputation, and his patients by advice, but also render important benefit to the community.

It is true that medical practitioners, for reasons hereafter stated, are exempt from serving on juries,

and are seldom charged with magisterial duties, at least till they have retired from the more active employment of their profession; it must be remembered, however, that they are charged with important and peculiar jurisdictions; and it is impossible to look at the various litigations which we have enumerated in the first part of our work, without feeling that every member of the medical colleges ought to possess some legal knowledge. Can the President and Censors of the College of Physicians execute their power of fine and imprisonment; can they restrain unlicensed intruders, or punish the bad practices of ignorant pretenders, without some study of the law? can they vindicate their rights without reference to the numerous acts of parliament on which they are founded? can they prove the guardians of the public health, without knowing the enactments by which it is protected? can they advise the legislative or executive power on numerous points submitted to their consideration, (as vaccine inoculation, quarantine, &c.) without understanding the bearings of the question referred to them? can they in fine do or advise any public act, without considering either the existing law as it may stand, or the policy and mode of future enactment? they may indeed state as much of the medical, chemical, or physiological facts of each case as their imperfect view may enable them to take; leaving it to the lawyer, who knows no physic, to correct the errors of the physician who knows no law. That acts of parliament have been framed on this principle of the mutual independence of law and science, it were vain to deny; but that they would have been better framed, if the parties employed in drawing them up had possessed some understanding in common on the subject before them, is equally in-

disputable. Let us therefore hope that, when our reader shall have considered the many points in which medicine and its branches may become auxiliary to legislation or government, he will feel convinced that legal studies are not useless to medical practitioners in their public capacity.

In considering the use of legal knowledge as applicable to private practice, *Sir William Blackstone* has mentioned one of many instances; it would be useful if the medical attendant were acquainted with at least the formal part of executing wills; in the moment of danger and distress, when all around the bed of death are confused with fear, or overwhelmed in affliction, the physician, probably a confidential friend, whose duty and habit ensures self-possession, may be the only person competent to advise. How many estates have been lost to the intended heir, by the want of a third witness to a devise of real property? or by an attestation informally signed, because the curtains of the bed were drawn, and the testator could not see the witnesses? From considering the last, let us turn back and enquire whether medical observation may not be necessary in the first scene of life. A midwife, unacquainted with the law of tenant by the courtesey, will scarcely note whether a child, certainly dead within a minute of its birth, did in that period move a limb or open an eye; he will not consider whether a momentary quivering of the lip was a sign of independant vitality, or the expiring remains of uterine life. If after a lapse of ten or twenty years he should be examined in a court of justice on this point in order to determine the right of the father to his estate for life, he will be unable to satisfy his own conscience, or the ends of justice; but once acquainted with the

importance of these observations, he will never fail to note the occurrence, whenever he has reason to believe that the circumstances of the case may give rise to legal question.

In cases of impotence, sterility, idiotcy, and lunacy, the confidential medical attendant is the first person consulted on the subject; how often may he refute a groundless accusation, remove a causeless fear, and prevent a public exposure, by forming and demonstrating correct views of the subject? how often too may he aid the oppressed, defeat the guilty, and protect the innocent, by a knowledge of the legal remedies against fraud or coercion?

In many criminal cases too the surgeon is of necessity among the first witnesses of the deed; is it not important that he should know what evidence will be required to prove its perpetration? surrounded by ignorant or prejudiced persons, his calm and accurate view, not only of medical, but of general points, becomes of peculiar importance; yet if he be unacquainted with the forms of judicial enquiry, unversed in the history of criminal courts, he will be as little able to direct his attention to the proper objects, or to divest his mind of undue bias, as the most ignorant of the by-standers.

As we shall have frequent occasion in the course of this work to revert to these points, we do not now dwell on them more minutely, than to repeat our opinion, that a general knowledge of the law is not only becoming to the medical practitioner in his character of a gentleman, but highly useful and necessary to his professional career. We do not expect that medical students shall become special pleaders, or that the bar shall vie in chemistry and physiology with the professors of those sciences; but we shall endeavour to

point out to each the sources from which they may draw information if they are desirous of acquiring it; we are of necessity confined within narrow bounds; but if within those limits we enable the two professions of law and physic to understand and appreciate each other, our object is accomplished.

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ERRATA. VOL. I.

Page 176, note (*a*) after *Greenstreet* and, insert *Greenstreet*.
—— 177, note (*a*) for *majorum* read *magorum*.
—— 235, note (*b*) for *primes* read *primis*.
—— 437, line 21, for *violation* read *volition*.

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Page 188, line 2, for *Nicholls* read *Mitchell*.
—— 362, line 16, for 301 read 303.
—— 347, line 19, for *portable* read *potable*.

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Index, for p. 156—184, read 320—348.

Medical Jurisprudence.

PART I.

1. *Of the College of Physicians.*—2. *College of Surgeons.*—3. *Society of Apothecaries.*—4. *Medical Liabilities and Exemptions.*—5. *Public Health.*—6. *Quarantine Laws.*—7. *Medical Police.*

1. OF THE COLLEGE OF PHYSICIANS.

IT does not appear that the Professors of Physic were in any way classed, or incorporated, in England, until the year 1522, although we learn from the preamble of the Charter of Henry the Eighth, as well as from the petition of the 9th of Henry the Fifth, that other countries had long before that period established Medical Colleges, having considered such a measure not only as necessary for the encouragement of science, but as highly politic for the preservation of the public health.

England, although destined to take the lead in research and discovery at a later period, was in the sixteenth century far behind her continental neighbours in the field of Science. And with respect to the study and practice of physic, it seems probable that, until after the foundation of the College of Physicians, it had not even assumed the character and

dignity of a regular profession; for we find that the very few learned men in that branch, which the annals of the period can furnish, had acquired their knowledge in the foreign universities.

Until the auspicious period of the Reformation, various circumstances contributed to retard the progress of medical science; the first and most considerable of which may be traced to the many monastic establishments (*a*) with which the country was infested; the Monks are known to have practised physic very extensively, and when the superstitious character of these ages is considered, we shall not feel surprised at the vulgar, and perhaps not the lower order alone, having preferred, to every other medical assistance, the aid of those who arrogated to themselves the immediate assistance of heaven in the preparation and administration of their medicines.

The Alchemists (*b*) were another, and very numerous class to whom we may justly refer the temporary degradation of the science of medicine. Like their lineal descendants, the Empirics of modern times, their attention was directed to the discovery of an universal specific which should be equally applicable to every disease; and as presumption is ever proportionate to incapacity, we need not be surprised that they should have been eagerly followed by the ignorant of their day, as their successors are by the vulgar of our own; under such circumstances there could have been but little encouragement to men of real learning, and as we find by the recital of the act

(*a*) The imposition of Urine-casting owed its origin to monastic practice, where the inspection of the urine in the monastery obviated the trouble of a personal communication with the patient.

(*b*) In 1500, *Francis Anthony* was charged with killing several persons by a medicine, said to have been compounded of Gold and Mercury, which he called his *Aurum Potabile*.—*Goodall, Pro* 349.

of 5 *Hen.* 8. c. 6. that there were but twelve regular Surgeons practising in all London, we may safely conclude that the number of legitimate physicians must have been proportionally smaller. The Universities of Oxford and Cambridge had probably from the time of their foundation conferred degrees in medicine, but these do not appear to have carried with them any general privilege or authority; their rights indeed were reserved by the concluding section of the 3d *Hen.* 8, *c.* 11, but in what those rights consisted has not been judicially determined, even though the litigation to which the Act and the subsequent Charter of the College gave rise, would naturally have produced some decision on this point, had the extent of those ancient rights ever been legally defined (*a*). We shall not consume any farther time upon this question, for although it might be a subject of some antiquarian curiosity, it would furnish but little matter of professional interest, or practical utility. In the present age the Universities of Oxford and Cambridge are firmly united by a communion of sentiment and interest to the College of Physicians, and physicians are rarely admitted as Fellows (*b*) of this learned body, unless they have previously graduated in one of the English Universities, or at Trinity College, Dublin, but even in this latter case, it is required that the candidate for admission should have been previously incorporated either into the University of Cambridge or Oxford. That a distinction founded on such a basis should have excited an angry and jealous feeling in the

(*a*) See however on this subject a pamphlet published at Oxford in 1721, occasioned by the case of the King *v.* the Bishop of Chester.

(*b*) The exclusion of persons, not being graduates of an English University, formed the subject of a royal letter, for which see Appendix, page 92.

excluded party is not extraordinary; and the authors of the present work hope that they shall stand excused for offering a few remarks upon a subject which they consider vitally interwoven with the best interests of the profession. The arguments which have been so repeatedly urged against the justice, as well as policy, of the Bye-law (*a*) which thus excludes all, but the graduates of an English University, from the honours of the Fellowship, may be easily refuted, and its salutary tendency, in relation to the interests of the public, as well as to the dignity of the profession, very satisfactorily demonstrated. For the complete knowledge of medicine, as a science, all the collateral lights of natural philosophy and erudition, are required; while for its successful practice as an art, the physician should possess those high qualifications of mind, and have received that moral cultivation which a mere technical education can never bestow. We are willing to admit that "the curative art cannot be learnt on the sequestered banks of the Cam or the Isis, as well as amid the distress and sickness of a great city;" but we assert with equal confidence, that the liberal pursuits, and wholesome discipline of an English university, can best prepare the mind for the full and extensive benefits, which the pupil is afterwards to derive from his professional studies in the metropolis; and if it be essential to encourage a liberal education amongst those who are destined to move in the higher walks of physic, we would ask whether any plan could be derived more likely to ensure our object, than that fair and honourable reward which is held out by this unjustly reviled bye-law of the College of Physicians. It has been

(*a*) See Lord Kenyon's judgment, 7 Term Rep. 288, and Appendix page 134.

urged, that the education of a physician is thus rendered materially and unnecessarily expensive; and that the delay of twelve years, which are required for the full completion of the highest medical degree, proves another great and vexatious hardship;—to all this we reply, that we should politically resist any measure that had the least tendency to divest medical education of its pecuniary sacrifices, and to open the temple to a crowd of needy and half-educated adventurers. Tissot seems to have entertained the same sentiment, and he observes that, for these reasons, no person ought to be allowed to study physic in his native city: the operation of this bye-law will therefore furnish the surest guarantee of professional respectability, and the College of Physicians will continue to enroll names distinguished for science and erudition, men who will cast a lustre on the profession, over which they preside: let then the practitioner in medicine beware how he attempts to depreciate the dignity and importance of this ancient institution, or to deny the rights and privileges to which the corporate body is legally and morally entitled, for to the College of Physicians, as it regards the whole profession of physic, we may address the same emphatic words that Cicero applied to Torquatus with reference to the state, "TIBI, NULLUM PERICULUM ESSE PERSPICIO, QUOD QUIDEM SEJUNCTUM SIT AB OMNIUM INTERITU."

Nor is the College singular or invidious, as may at first sight appear, in adopting this rule; by far the greater number, if not all, of the Bishops require a similar qualification for the Church; and the Inns of Court, though they do not exclude others, grant some indulgence to members of the University on entering their respective societies, and remit two years of the

usual term of probation to those who have taken the degree of Master of Arts or Bachelor of Laws previously to their call to the Bar.

The College of Physicians in London owes its foundation to *Dr. Thomas Linacre* of All Soul's, Oxford, one of the physicians to king *Henry* the 8th, a man of profound learning and most devotedly attached to his profession; having studied at Rome, Bologna, and Florence, (then under the government of *Lorenzo de Medici*, by whom he was encouraged), he naturally imbibed an admiration of the medical schools with which Italy then abounded, and appears to have distinguished himself so much both by his general learning and particular science that he was called to Court as physician to the king, and entrusted by *Henry* the 7th both with the health and education of his son prince *Arthur*.

The practice of Medicine was about that time, as we have before observed, chiefly engrossed by empirics and monks, who, and especially the latter, easily obtained licences from the bishops in their several dioceses, to whom was committed the authority of examining practitioners in an art of which they could not be competent judges. *Linacre*, through his interest with Cardinal Wolsey, a man most highly and honorably distinguished for his munificent encouragement of learning, obtained in 1518 Letters Patent (*see Appendix*, p. 5,) from *Henry* the 8th, (*a*), constituting a Corporate Body of regular Physicians in London, with peculiar privileges hereafter to be spe-

(*a*) *Henry* himself appears to have added some study of Physic to his other pursuits; among the *Sloane MSS.* in the British Museum there are several receipts invented by the king in conjunction with Doctors *Butt* and *Chambers*; the familiarity of the former with *Henry* is shown by *Shakspeare*, *Hen. 8th*, *Act.* 4. *Scene* 2.

cified. *Linacre* (*b*) (though his name is second in the Letters Patent) was elected the first President of the College, which held its meetings at his house in Knight Rider Street; he was continued in the office during his life, and bequeathed his house to the College at his death; he was distinguished both by his learning and his friendship with learned men, among whom he enjoyed the commendations of *Erasmus* and *Melancthon*. He died in 1524, in the sixty-fourth year of his age, and was buried in St. Paul's, where a monument was erected to his memory by *Dr. Caius*, one of the most learned and munificent of his successors. *See Preface to Goodall's Proceedings of the College: Biog. Britan.: Aikin's Biog. Mem. of Medicine:* & 6 *Aikin's General Biography.*

As it cannot be uninteresting to trace the progress of a society through the medium of its principal ornaments, and as the authors owe to *Dr. Caius* the foundation of that institution in which they commenced those joint chemical studies which have indirectly induced their present undertaking, they do not apologize to the reader for adding a short notice of his life, and of that of *Dr. Harvey*, another considerable benefactor to the College of Physicians.

Dr. John Caius, *Kaye*, or *Key*, of Gonville-hall, Cambridge, succeeded *Linacre* in the Presidency; like him he had travelled in Italy for his improvement in the study of Medicine, and having resided in Padua and Bologna, where he took his Doctor's degree, and

(*b*) *Chambre* and *Linacre* were in holy orders, a circumstance which has been cited against the present bye-law of the College, that no priest can be admitted; it must be remembered that it is the policy of the present day to restrain the clerical encroachments, which constituted a leading feature of the Papal usurpation: our Inns of Court observe the same rule.

was for some years Greek lecturer, he pursued his travels through Germany and France. After his return to England, he was called to Court as Physician to king *Edward* the 6th; in 1547 he was made a Fellow of the College of Physicians, the rights and privileges of which he most strenuously asserted and augmented. In 1557 and 1558 he obtained from queen *Mary*, with whom he was a favourite, a licence to advance Gonville-hall into a College, under the name of *Gonville & Caius College*, on the condition of enlarging the institution at his own expense. Of this college he accepted the mastership in 1569, and in order that he might devote his undivided attention to his favourite project, he resigned the Presidency of the College of Physicians in 1565, and completed his new buildings at Cambridge in 1570, at an expense which was very considerable in those days. The mansion of learning, thus raised by his liberality, became the retreat of his old age, and having resigned the mastership, with a disinterestedness equalled only by his munificence, he continued to reside as a Fellow Commoner until the period of his death, which happened in 1573, in the sixty-third year of his age. The laconic epitaph on his monument in Caius College Chapel, Fui Caius, is well known. For an account of his many learned works *see Aikin's Biog. Memoirs of Medicine*: 2 *Aikin's General Biog.* and *Goodall's Proceedings of the College.*

Dr. William Harvey, of Gonville and Caius College, Cambridge, to whom we are indebted for the important discovery of the circulation of the blood, was another ornament and benefactor of the College. Like his predecessors he visited France, Germany, and Italy, in order to perfect himself in the science of Medicine; at Padua he studied under the most cele-

brated Professors of that University, then at the height of its reputation, and in the anatomical school of *Fabricius* caught the first idea of his great discovery, by attributing their true office to the valves of the veins, exhibited, but not explained, by his master. From this circumstance, the envious of his own time and some foreigners to this day, have attempted to deprive our countryman of the honor of his invention (*a*). In 1602 *Harvey* took his Doctor's degree at Padua, shortly after which he graduated at Cambridge; in 1616 or 1619 he published his discovery in his Lectures before the College, and like many others suffered in his practice from the reputation of his learning, for men would not then believe that the labours of the closet and dissecting-room were the truest roads to professional skill.

He was however appointed Physician extraordinary to *James*, and subsequently Physician in ordinary to king *Charles* the 1st; by the latter he was highly esteemed and favoured, having been appointed during the residence of the king at Oxford to the Mastership of Merton College, vacant by the secession of the Warden, *Dr. Brent*, to the Parliamentary party; this appointment however, he did not hold long, being in turn displaced by his predecessor.

(*a*) *Jo. Alph. Borellus*, in speaking of the pretensions of *Honoratus Faber* to this discovery, concludes *Omnes enim sciunt Harveium Anno Dom* 1628 *Francofurti typis Gual. Fitzeri suam exertationem primum edidisse; scilicet decem annos antequam Fabri sanguinis circulationem docuisset. See Goodall's Proceedings of the College.*

His work de *Generatione Animalium*, although eclipsed by his superior discovery, must be considered as a valuable acquisition to the science of Physiology; its luminous reasonings overturned the doctrine of *Equivocal Generation*, that had been maintained in the schools since the days of Aristotle, and established the universal principle "OMNIA EX OVO."

Some time about 1652, the College having removed from their ancient house in Knight Rider Street to one at Amen Corner, *Dr. Harvey* built them a library and public hall, which he granted for ever to the College, with his library and a valuable collection of instruments. *See* 1 *Stowe's London*, 131.

In 1654 *Harvey* was unanimously elected President of the College of Physicians, but he excused himself on account of his age and infirmities; such however was his attachment to that body, best evinced by *donationes inter vivos*, that in 1656 he made over his personal estate in perpetuity for its use. He died in 1658, in the eightieth year of his age; his works were published by the College in 1766, in quarto, to which edition his life is prefixed, to which we refer, as also to *Aikin's Biog. Mem. of Med.*; *Halleri Bibl. Anat.*; *Aikin's Gen. Biog.* and the *Preface to Goodall's Proceedings.*

We should exceed our limits and wander from our purpose if we entered more fully into the biography of the many celebrated men who have since graced the College (*a*); it is enough for us to have directed the reader's attention by the preceding memoirs to the very rapid improvement which the science of Physic appears to have undergone immediately after its institution. The profession gained much in respectability by their incorporation, which afforded a unity of interest among its legitimate professors, at the same time that it armed them with extraordinary powers against their opponents: it also gave additional means to the learned of mutually communicating their

(*a*) *Henry Marquis*, of Dorchester, who was admitted a Fellow in 1658, left at his death in 1680, a collection of medical and other books to the College which were valued at £4000.

researches and discoveries, at a time when the comparative scarcity of printed books rendered such intercourse doubly valuable. The dissolution of the monasteries, and the consequent dispersion of a host of ecclesiastical empirics, with the destruction of their prejudices and superstitions, as inconsistent with the progress of liberal science, as degrading to religious principle, completed the triumph which the foundation of the College had begun. The consequence is evident. England, which in the beginning of the sixteenth century had been behind all the then civilized world in medical knowledge, finds herself in the commencement of the nineteenth inferior to none in any branch, superior to most in some, and taking a decided lead in all the ramifications into which the science of physic and the sister arts have divided themselves.

This effect however was not produced by the College, without some severe struggles on the part of those who were, or supposed themselves to be, aggrieved by the extraordinary powers granted to the Corporation by the Charter of *Henry* the 8th; it does not appear whether any of these disputes arose between the granting of the Letters Patent and their confirmation by the statute 14 and 15 *Hen.* 8. *c.* 5. at least no cases remain recorded by any sufficient authorities; it is therefore probable that the College did not attempt any exercise of their new powers until they had received the sanction of Parliament; even the king, (and no one will suspect *Henry* the 8th of any diffidence of royal prerogative) by using the terms "*quantum in nobis est,*" (see Charter) seems to have been conscious that the powers of fine and imprisonment which he professed to grant, *suo jure*, could only become effective by the ratification of a superior authority.

The restriction of practice to persons examined and licenced by some supposed competent authority was not new. Sir *Wm. Brown* in his Vindication of the College from the imputation and misrepresentation of their adversary in the case of Dr. *Schomberg*, mentions an Act of Parliament or Ordinance of the 9th *Hen.* 5. *(see Appendix, p.* 1.*)* by which the licencing of physicians is confined to the Universities, and of surgeons to persons duly qualified: and the 3d *Hen.* 8. c. 11. *(see Appendix, p. 3.)* somewhat strangely confers on the Bishop of London, and in his absence on the Dean of St. Paul's, the exclusive power or privilege of licencing physicians and surgeons in the City of London, and within seven miles in compass. It can scarcely be doubted that the provisions of this act as relating to physicians, were repeated by the Act 14 and 15 *Hen.* 8. *c.* 5. confirming the incorporation of the College, for where a power to do a specific thing is given to two distinct persons or bodies by separate Acts, it is a general rule that the last repeals the former, *Quia Leges posteriores Leges priores contrarias abrogant*; yet it is said that a Bishop of London has within a few years professed to grant a licence to practise physic in London and within seven miles thereof. Now, independent of the objection before mentioned, it is evident, even on the construction of the 3. *Hen.* 8. *c.* 11. from which alone the power is derivable, that such licence, if any such were granted, is bad; for the words of the statute are, "calling to him or them (the Bishop and Dean) four "Doctors of Physick, and for Surgery other expert "Persons in that Faculty, and for the first Exami- "nation such as they shall think convenient, and "*afterward alway four of them that have been so* "*approved:*" Now if the Bishop cannot find four

assessors *so approved*, his authority must cease, for he cannot exercise it without them.

The power of the Archbishop of Canterbury (*a*) to confer degrees of all kinds (a relic of Papal usurpation transferred to him by statute 25 *Hen.* 8. *c.* 21) has induced a belief that the Archbishop has a power of granting licences to practise physic, and several have been granted accordingly; among others *Wm. Lilly*, the astrologer, was licenced to practise physic, except in London and within seven miles; for his diploma, the wording of which is curious, *see the Appendix*. Now though the Pope may have had the power of granting degrees and licences in physic, the concluding words of the 14th and 15th *Hen.* 8. confirmed by 1st *Mary*, are sufficient to exclude the authority either of the Pope or of the Archbishop, "that no person from henceforth be suffered "to exercise or practise in Physic through all Eng- "land until such time as he be examined at London "by the said President and three of the said Elects, "and to have from the said President or Elects

(*a*) This power has however been questioned; the words of the Act 25 *Hen.* 8. are, "All manner of Licences, Dispensations, Faculties, &c. "as heretofore hath been used and accustomed to be had at the See of "Rome." The term Degree does not occur in the act, yet in *The King v. the Bishop of Chester*, a degree of Bachelor of Divinity granted by the Archbishop was held a good qualification. 8 *Mod.* 364: *Strange* 797. This judgment was ably controverted in a pamphlet published at Oxford in 1791; we may say with the author, "As to the Archbishop of "Canterbury I have no design to rob his See of any privileges belong- "ing to it. He may give as many titles, and bestow as many honours "as the Pope himself does, provided they are not admitted into the "same rank with those conferred by the favour of the Crown, and they "do not challenge any place in the construction of Charters and Acts "of Parliament." See Serj. *Hill's* Law Pamphlets in fol. vol. 1. in Lincoln's Inn, Lib. A recent Act of Parliament, 55th *Geo.* 3. recognises only Physicians licenced by the College and by the Universities of Oxford and Cambridge.

" Letters Testimonials of their approving and ex-
" amination, except he be a Graduate of Oxford or
" Cambridge, which hath accomplished all things for
" his Form without any Grace." Then as it cannot be pretended that the Archbishop's licentiate, though he may be a graduate of Oxford or Cambridge, is one who has accomplished all things for his form (*subaudi* in physic) without any grace, it follows that such degree or licence is void as respects the authority of the College of Physicians.

The provisions of the Act of the 3d *Hen.* 8. could produce no permanent benefit, and we therefore find within seven years, that the continuance of the abuses which it was intended to remedy, was made the foundation of granting its powers to a Corporation better calculated to exercise them; what these powers are we must now investigate somewhat minutely, for it is an essential branch of Medical Jurisprudence to regulate and define the privileges and office of those who are best able to give effect to its institutions.

It may be necessary to premise that though several subsequent Charters (*a*) have been prepared for or offered to the acceptance of the College of Physicians (as 15 *James* and 15 *Charles* 2. for which *see* Sir *Wm.*

(*a*) Such subsequent Charters would not however annul the original Letters Patent. " A new Charter doth not merge or extinguish any of
" the ancient privileges of the old Charter. And if an ancient corpo-
" ration is incorporated by a new name, yet their new body shall enjoy
" all the privileges that the old corporation had." *Raym.* 439: 4 *Rep.* 37. For other points as to renewed or substituted Charters, see *The King v. Amery and Monk*, by information in the nature of a *quo warranto*, 1 T. R. 575. *Newling against Francis* (the election of Mayor of Cambridge) 3 T. R. 189. *The King against Miller*, 6 T. R. 268. And more particularly *Rex v. the Vice-Chancellor &c. of Cambridge*, 3 *Burr.* 1656. " A Corporation already existing are not obliged to accept the new

Brown's Vindication, Dr. *Chas. Goodall's* Collection, and other works, most of which are enumerated in *Gough's* Topography of London), yet the Charter and Statute of *Henry* the 8th is still the subsisting ground of the rights, privileges, and powers of the Corporation. By their Charter recited in, and confirmed by the 14th and 15th *Hen.* 8. *(see Appendix, p. 7)* *John Chambre*, *Thomas Linacre*, *Ferdinando de Victoria*, (*a*) physicians to the king, and *Nicholas Halsewel*, *John Francis*, and *Robert Yaxley*, physicians, and the rest of the faculty in and of London, are constituted a perpetual college or community, with power annually to choose a President, who is to govern and superintend the College, and all men of the faculty and their practice *(omnes homines ejusdem facultatis et negotia eorundem,)* they are to have perpetual succession and a common seal, with power to hold lands to an amount therein limited (but which has since been enlarged by other Charters) notwithstanding the statute of Mortmain. They may sue and be sued by the name of the President and College or Community of the Faculty of Physic in London *(per nomina Presidentis et collegii seu communitatis facultatis*

" Charter in toto, and to receive either all or none of it. They may " act partly under it and partly under their old Charter or Prescription. " Whatever might be the notion in former times, it is now most certain, " that the Corporations of the Universities are Lay-Corporations; and " that the Crown cannot take away from them any rights that have " been formerly subsisting in them under old Charters or prescriptive " usage."

(*a*) An alien cannot now be a Fellow of the College, and there is good reason for this, as he may have judicial authority when elected to serve as Censor, &c.

By 9 *J.* 1. *c.* 5. *s.* 8. no Popish Recusant shall practice Law or Physic, or exercise any public office, or the trade of an Apothecary; but this Act is in part repealed by 31 *Geo.* 3. *c.* 32. There is also a considerable distinction in law between a person who is merely a Papist and one who is a Recusant.

medicinæ Lond'); they may hold meetings *(congregationes licitas et honestas)* and make bye-laws *(stat' et ordinationes)* for the good government, superintendance, and correction *(pro salubri gubernatione, supervisu, et correctione)* not only of the College but of all persons exercising the faculty in the city, or within seven miles thereof, *(omnium hominum eandem facultatem in dicta civitate seu per septem miliaria in circuitu ejusdem civitatis exercen')*. And it was granted to the College that none should exercise the faculty of physic within the city, or seven miles thereof, unless they had been admitted by the President and College by letters under their common seal, under the penalty of five pounds *(centum solidorum)* for every month during which such unlicenced person *(non admissus)* should practice; one half of the said penalty to the King, and one half to the President and College. The Charter further directs that the President and College should every year elect four (censors) who should have the superintendance, correction, and government of all persons exercising the faculty of medicine in any manner *(aliquo modo frequentantium et utentium)* in the city, or within seven miles thereof; with powers to punish for mal-practice *(ac punitionem eorund' pro delictis suis in non bene exequendo, faciendo, et utendo illa)* and with power of superintendance and scrutiny of all medicines and their administration, provided that the punishment should be by fines, amercements, imprisonment, and other reasonable modes *(per fines, amerciamenta, & imprisonamenta, corpor' suor' et per alias vias rationab' et congruas.)* The Charter then directs *(quantum in nobis est)* that the president and fellows of the College, and their successors, should be exempt from and should not be summoned to Assizes, Juries,

Inquests, Attaints, *et aliis recognitionibus*, by the Mayor, Sheriffs, or Coroners of the City, even by the king's writ. It was provided however by the concluding clause that nothing contained in the Charter should prejudice the City of London.

After the recital of the Charter the Statute proceeds to confirm the same "in as ample and large manner "as may be taken, thought, and construed," and directs the election of eight elects, from among whom the president is to be annually chosen.

The concluding section of this act is important, as it evidently repeals so much of the 3 *H.* 8. as refers to physicians, enacting, "that no person from hence-"forth be suffered to exercise or practise in physic "through *England* (*a*) until such time as he be exa-"mined at London, by the said President and Three "of the said Elects; and to have from the said Presi-"dent or Elects Letters Testimonials of their approv-"ing and examination, except he be a Graduate of "Oxford or Cambridge, which hath accomplished "all Things for his Form without any Grace." (*b*)

(*a*) It is true that the College has no means of punishing the disobedient in the country, because the Statute is not supported by penalties; but it must be remembered that the acting in defiance of a Statute is in itself a misdemeanour. According to the opinion of Chief Justice *Mansfield*, a Doctor's Diploma does not itself entitle the possessor to practise in the country parts (provinces) of England. He must be an Extra-Licentiate of the Royal College of Physicians, or Medical Graduate of an English University. The provincial physician, unless thus protected, is placed under very humiliating circumstances; he is only a doctor by *courtesy*, and therefore cannot claim rank, or defend himself in courts of law. In a cause tried at Stafford before Judge *Mansfield*, a physician who had graduated in Scotland, having been grossly abused in his professional capacity, sued for redress, but could obtain none, because he had not complied with the act of *Henry* the 8th. *Middleton v. Hughes. See Harrison's Address*. 62.

(*b*) To this Act it has been objected that it wants the Royal confirmation, and it was suggested that Cardinel Wolsey for a sum of

The next Act which concerns the College is the 32d *Hen.* 8. *c.* 40. (*see Appendix, p.* 14) by which it is enacted that the President, Fellows, and Commons of the College, should be discharged from keeping Watch and Ward in the City or its Suburbs, and that they shall not be chosen to the office of Constable, or to any other office in the City or Suburbs, any Order, Custom, or Law, to the contrary notwithstanding; By the second section of this Act the power and office of the Censors, which had been left somewhat undefined by the 14 & 15 *Hen.* 8. is more accurately and fully determined. They are empowered to enter the houses of all Apothecaries in the City, for the purpose *only* of searching and viewing their wares, drugs, and stuffs, and if any be found defective or corrupted, they may cause them to be burnt, or otherwise destroyed, and a penalty of five pounds, (*a*) to be recovered by any that will sue for it, is inflicted on apothecaries who obstinately or willingly refuse or deny the four Censors to enter into their houses; a penalty of forty shillings is also inflicted on any Censor, who being elected, shall refuse the oath directed to be taken, or neglect the execution of his office. The oath of the censor, is by this act, directed to be administered by the President of the College. The censors are also obliged to take the oaths of allegiance, supremacy, and abjuration in the Court of Exchequer at Westminster, hence the impropriety, if not illegality, of any Papist or Recusant being elected a Fellow of the College.

money, interpolated this among other Acts without the King's assent. The story, sufficiently improbable in itself, rests on no evidence, and the plea founded on it was overuled by C. Justice *Pemberton*, 2 *Show* 166. *See also College of Physicians against Huybert. Goodall's Collect.* 267, where the circumstances are more fully related.

(*a*) This fine is raised to ten pounds by *Stat.* 1 *Mary, Sess.* 2. *c.* 9. § 5.

By the third and concluding section it is declared, that "forasmuch as the Science of Physick, doth "comprehend and contain the knowledge of Surgery," "any of the said Company or Fellowship of Physi- "cians, being able, chosen, and admitted, by the said "President and Fellowship of Physicians," may practice the Science of Physic in all its members, both in London and elsewhere.

The Statute 34 and 35 *Hen.* 8. *c.* 8, entitled "A Bill "that Persons being no common Surgeons, may "minister medicines, notwithstanding the Statute," refers to the 3d *H.* 8. *c.* 11. omitting all mention of the subsequent acts of the 14th, 15th and 32d, which were for the regulation of the Physicians of London, and as this Statute appears to have been directed against the then Surgeons of London, and for the relief of charitable persons, who had ministered to poor people, not taking any thing for their pains and cunning in certain diseases, (*a*) principally outward, and therefore (in its limited sense) objects of surgery rather than medicine; we shall treat of this act more at large when we enter upon the Charters and Statutes relating to the College of Surgeons. By this act, however, inward medicines are permitted

(*a*) Such as "Women's breasts being sore; a Pin and Web in the Eye; Uncombes of Hands; Burns; Scaldings; sore Mouths; the Stone; Strangury; Saucelim; and Morphew, and such other like diseases."

The pin and web in the eye is alluded to by Shakespeare in Lear, Act iii. Sc. iv. "*he gives the web and the pin*," and again, "*wishing all eyes blind with the pin and web*," Winter's Tale, Act. i. Sc. ii. With respect to the precise meaning of this expression some doubts have arisen. Hanmer says *the pin* is a horny induration of the membranes of the eye. Skinner seems likewise to say the same, but Dr. Johnson thinks that it is an inflammation, which causes a pain like that of a pointed body piercing the eye: *Web* in the eye, is defined by Johnson "a kind of dusky film that hinders the sight." *Uncombes of Hands* is an expression still used in the North for *Whitlows*. *Morphew* signifies a cutaneous eruption in the face, *Saucelim?*

to be administered by persons having knowledge and experience of the nature of herbs, roots and waters, for the stone, strangury or agues. (*a*) The latter clearly do not come within the description of what would now be called Surgical cases, and therefore so far the exclusive privileges of the physicians are affected by this Statute, yet it appears by the context and interpretation of the act, (*See Butler v Coll. of Phys.*) that such administration must be of herbs, roots or waters only, to poor persons, (*R. Litt.* 351,) and without fee or reward.

The acts of *Henry the 8th* having been found insufficient in their provisions for the search of apothecaries wares, and other matters, the Statute 1st *Mary, sess.* 2. c. 9, (*See Appx. p.* 25,) was enacted, whereby the 14th and 15th *Hen.* 8. *c.* 5, is confirmed and declared to be in full force, any Act, Statute, Law, Custom, or other thing made to the contrary notwithstanding; it was further enacted, that whensoever the President of the College, or such (the Censors) as the President and College shall yearly authorise to search, examine, correct, and punish, all offenders and transgressors in the said faculty, within the said city and precinct, shall commit any such offender to prison, (the Tower of London excepted), the warden or goaler of such prison is to receive and keep such person or persons at the charges of such person or persons, till discharged by the President and such persons as by the said College shall be authorised; under penalty of double the fine (*b*) such offender be assessed to pay, so that the same fine do not exceed twenty pounds. By the fifth section, it is provided, that it shall be lawful for the

(*a*) See *Cro. Car.* 257.

(*b*) Such penalty has been recovered from the warden of the Fleet. *Goodall's Pro.* 421.

wardens of the grocers (now apothecaries) company, or one of them, to go with the Physicians in their search and view of apothecaries wares; but if the wardens refuse or delay to come, the Physicians may proceed without them; and the penalty of resisting such search is raised to ten pounds; By the concluding section, all Justices, Mayors, Sheriffs, Bailiffs, Constables, and other ministers and officers, shall assist the execution of the said acts, upon pain of running in contempt of her majesty. *(a)*

By these acts of Parliament, the College of Physicians is regulated to the present day; we have before stated that several Charters, some for limited and some for general purposes, have been granted to the College. In 1520, Queen *Elizabeth* granted by letters patent the bodies of four malefactors who had been executed for felony, to be taken by the College every year for dissection. *(b)* Charles the second granted six more "provided they be afterwards "buried." Charter 15 *Char.* 2. *Goodall's* Coll. p. 62. This privilege we believe has not lately been claimed, though the present scarcity of bodies for the purposes of instruction would fully justify its revival: nor is there any doubt but that the judges in the exercise of their sound discretion might select some

(*a*) By Statute 10 Geo. 1. c. 20, the College was empowered to examine drugs within seven miles circuit, as well as within the City of London, to which the wording, though probably not the intention, of former acts had confined them; but this Statute, though continued by 13 G. 1. c. 27, has now expired; we shall in another place suggest the policy of reviving and extending its enactments.

(*b*) The punishment of dissection is now added by Act of Parliament to the execution for murder only, but this does not exclude the right of the Crown to the disposal of the bodies of all executed traitors and felons. The words of the grant of Elizabeth, are "*quod jure publico* "*hujus regni furti homicidii vel cujuscumque feloniæ condamnatum et mortuum* "*fuerit.* Charter 7 Eliz. Goodall's Collection, p. 35.

of the more atrocious criminals as proper objects for this additional severity.

In 1562 *King James*, by letters patent, granted to the College, for the sum of six pounds a year, that moiety of the fines to be inflicted by them to which the crown was entitled according to the several acts which we have before cited. Charter 15 *Ja. Goodall's* Coll. p. 37.

We do not think it necessary to trouble the reader with the Statutes and Bye Law (*a*) which the College have made for their own internal Government, pursuant to the power which all Corporations have of making proper regulations to bind their own members, and according to the Statute 14 *and* 15 *Hen.* 8. by which they are specially authorised so to do; these Statutes have been printed, though not under the sanction of the College.

(*a*) For the power of Corporations to make reasonable Bye Laws, See *Kyd* on Corporations; how far they may bind Strangers. ib. 103. *Cowper*, 269: they must not be in diminution of the King's prerogative, or to restrain suits in the King's Courts; 19 *Hen.* 7. c. 7. nor to extend to imprisonment or forfeiture of goods. Magna Charta. 2 *Inst.* 47, 54. *Kyd*, 156. But see also 5 *Mod.* 320; but they may inflict a penalty to be recovered by action or distress; 5 *Co.* 64. *Kyd*, 156. And this power to make Bye Laws, is incident to all Corporations, though it be not given by any special clause. *Co. Lit.* 264. *Ld. Hob.* 211. *Carth* 482. 3 *Leon* 39. A bye-law, giving a casting vote to the senior, if the charter requires a majority, is bad. *King v. Ginever.* 6 T. R. 732. As to the other points, respecting elections, see *the King against the Mayor of Durham*, in Lord *Kenyon's Reports*, by *Hanmer*, *fr.* 112. And generally, 1 T R 118: 2 TR 2: 6 T R 732, 736: 7 T R 543: 8 T R 356: 1 *H. Blackstone* 370: 12 *East* 22: 3 *East.* 186: 3 *Bos and Pull* 434. A bye law must be reasonable, if not it is bad, 1 *Salk* 143: 11 *Co. R.* 53: *Moore* 412, 576: *Ld. Kenyon by Hanm.* 500. As to the mode of making bye Laws *Ld. Raym.* 496: 2 *P Wms* 209: *Comb.* 269: 1 *Str.* 385, we have been particular in citing authorities on this subject, as it is a continual source of litigation with all Corporations: as respects the College of Physicians, we shall have occasion in another place to refer more particularly to the case of *the King*, (at the instance of Dr. *Stanger*) *against the Coll. of Phys.* T. R. 282, in which this power was very ably argued and determined.

OF THE POWERS OF THE COLLEGE.

One of the first and most material of the powers and privileges granted to the College by the Acts and Charter to which we have referred (and which the reader will find recited in the Appendix,) is that of recovering from all persons who practise physic in London and within seven miles circuit, without their Licence, or Admission, the sum of five pounds for every month during which they have so practised. This power has been most minutely investigated and determined in the case of *Dr. Bonham.(a)* *Coke's Reports*, 123, (*see Appendix*, p. 62,) which was an action of false imprisonment brought by *Thomas Bonham*, a Doctor of Physic, of the University of Cambridge,*(b)* against the then President, Censors and some servants of the College; the Defendants justified under the Statute, (14 and 15 H. 8.) setting forth; that the plaintiff practised physic in London, and within seven miles circuit, not being admitted, &c. that being examined he was found insufficient, and forbid to practise, (*c*) but notwithstanding such prohibition, he afterwards practised for a month or more, whereupon they amerced him five pounds, to be paid to them at their next assembly, &c. *(d)* and likewise

(*a*) The name of Thomas Bonham also occurs about the same period among the signatures of several Surgeons. See Goodall.

(*b*) A degree in either of the Universities is a good addition in pleading within the Statute of Additions. 1 *Hen. 5. c.* 5. See 2 *Inst.* 668. 1 *Bl. Com.* 405.

(*c*) This forbidding is not absolutely necessary, but *ex abundanti cautela* is expedient.

(*d*) This custom of amercing for unlicenced practice appears to have been very commonly adopted by the College: (see Goodall's Proceedings,) it was undoubtedly erroneous, but as it was less expensive to the parties so fined than a suit for five pounds a month, according to the Statute, of which the defendant must have paid the costs, it was very generally acquiesced in till 1622, when the above trial took place.

injoined him to forbear practising any more until he be found sufficient, &c. upon pain of imprisonment; that he continuing still to practise was further fined and ordered to be committed; that being questioned if he would submit to the College, he replied, that he had practised and would practise without leave of the College, and denied that by the Statute they had any authority over him, as having taken his degree of Doctor of Physic within the University regularly, and so thought himself protected by that Clause in the Act; whereupon the Censors ordered him to prison, which was executed accordingly, and for this imprisonment this action was brought. In this case, Mr. *Justice Daniel*, thought a Doctor of Physic of either University was not within the body of the act, but suppose him to be within the body, yet he was excepted by the last clause. But *Mr. Justice Warburton* held the contrary upon both points. *(a)* *Chief Justice Coke*, (for whose judgment, *see Appendix*, 26,) said nothing as to either of those points, because all three (who were all the judges present,) agreed, that this action was clearly maintainable for two other points; and they resolved,

1. That the Censors had no power to commit the Plaintiff for any of the causes mentioned in the Bar, because the said clause which gives power to the said Censors to fine and imprison, does not extend to

(*a*) And this has been determined by subsequent authorities, that the exception of Graduates of the two Universities of Oxford and Cambridge, in the concluding clause, applies to persons practising in all England, except the privileged district of the City of London, and seven miles circuit, which is in the peculiar and exclusive jurisdiction of the College of Physicians, in which no person whatsoever may practise under any pretence whatsoever except by their licence. See *Coll. v. West.* 10 *Mod. p.* 353.

the said clause, viz. *That none in the said City, &c. exercise the said faculty*, &c. which prohibits every one from practising Physic in London, &c. without licence of the President and College; but extends only to punish those who practise in London, *Pro delictis suis in non bene exequendo faciendo et utendo Facultate Medicinæ*, so that their power (of fine and imprisonment) is limited to the ill and not to the good use and practice. *(a)*

2. Admitting that the Censors had power, yet they have not pursued it. 1. Because the Censors alone have power to fine and imprison, whereas here the President and Censors imposed this fine of five pounds. 2. The plaintiff was summoned to appear before the President and Censors, and for not appearing was fined five pounds, whereas the President had no authority.

3. The fines imposed by them by virtue of this act belong to the king and not to them, *(c)* and yet the fine is limited to be paid to themselves, &c. and for nonpayment they have imprisoned him.

4. They ought to have committed the Plaintiff immediately, though no time be limited in this act.

5. Their proceedings ought not to be by parol, inasmuch as their authority is by patent and act of parliament, and especially it being to fine and imprison.

6. The Act giving a power to imprison until he be delivered by the President and Censors or their successors, shall be taken strictly, or otherwise the

(*b*) For the power of punishment for Mala Praxis, Vide Post.

(*c*) The King is *Creditor Penæ*, and therefore all fines for offences belong to him. *Viner. tit* action *Qui Tam* (A) 10. The fines are however granted to the College by the Charter of *James*. Vide Supra.

liberty of the subject is at their pleasure. And this is well proved by a judgment in Parliament in the same case; for when this act of 14. *Hen.* 8. had given the Censors power to imprison, yet it was taken so literally, that the gaoler was not bound to receive such as they should commit to him, because they had authority to imprison without any Court; and thereupon the Statute 1 *Mary*, *cap.* 9, was made to compel the gaoler to receive them under a penalty, and yet none can commit to prison unless the gaoler receives him; but the 14 *Hen.* 8, was taken so literally that no necessary incident was implied.

And it being objected, the 1 *Mar. Cap.* 9. had enlarged the power of the Censors, as appeared by the words of the act; it was clearly resolved, that it does not enlarge their power to fine and imprison for any matter not within the 14th *Hen.* 8. the words of the act of *Queen Mary*, being "*according to the tenor and meaning of the said act.*" And further, "*shall commit any offender, &c. for his, &c. offence or* "*disobedience, contrary to any article or clause con-* "*tained in the said grant or act to any ward, gaol, &c.*" And in this case, it does not appear by the record, that the plaintiff has done any thing contrary to any article or clause within the grant or act of 14th *Hen.* 8. and for the two last points judgment was given for the plaintiff, *Nullo contradicente* as to them. *Michss. Term.* 6 *James.*

The Lord *Chief Justice*, *Sir Edward Coke*, in the conclusion of his argument, observes these seven rules for the better direction of the President and Commonalty of the said College for the future.

1. That none can be punished for practising Physic within London, but by forfeiture of five pounds a month, which is to be recovered by law.

2. If any practise Physic there for less time than a month that he shall forfeit nothing.

3. If any person, prohibited by the Statute, offend *in non bene exequendo, &c.* they may punish him according to the Statute within the month.

4. Those whom they commit to prison by the Statute ought to be committed immediately.

5. The fines which they assess according to the Statute belong to the king.

6. They cannot impose fine or imprisonment without making a record thereof.

7. The cause for which they impose a fine and imprisonment ought to be certain, for this is traversable. *(a)* For though they have Letters Patents and an Act of Parliament, yet inasmuch as the party grieved has no other remedy, neither by writ of error or otherwise, and they are not made judges, nor a court given to them, but have authority only to do it, the cause of their commitment is traversable in action of false imprisonment brought against them.

Chief Justice Holt, in delivering the opinion of the Court, said that notwithstanding the opinion in *Dr. Bonham's* case, the charge of male administration of physic is not traversable, and that my *Lord Coke's* opinion in that case was but *Obiter*, and no judicial opinion: besides that he seemed to have been under some transport, because *Dr. Bonham* was a graduate of Cambridge, his own mother university. And he himself after in the same case says, that if the Censors do convict a man for such offence, they ought to make a record of it; and that, they cannot do unless they are Judges of Record: and then we say their proceedings are untraversable, and they unpunishable

(*a*) But contra, see the opinion of Chief Justice *Holt*.

for what they do as judges. 12 *Mod.* 388. *Pasc.* 12 *Will.* 3. in the case of *Doctor Grenville against the College of Physicians.*

That Graduates of the two Universities have no privilege to practise in London, and within seven miles circuit, *(a)* has been repeatedly decided; see Doctor *Levet's* case, Lord *Raymond's Rep.* 472; *The Coll. of Physicians against West* 19, *Modd* 353 *and Appx.* That by Graduates is meant Graduates in Physic only. *See College Questions. Appx.*

The case of *Doctor Bonham, (b)* which we have been the more particular in citing as it contains much learning on the subject of our enquiries, and is reported by the first authority of his time, having shown that the College cannot fine or imprison for unlicenced practice, but must proceed by action in the ordinary Courts for the statutable penalty of five pounds a month, we must next show by what name the College ought to sue, for upon this point much difference of opinion and practice appears to have prevailed. In the case of *The President and College of Physicians v. Talbois*, exceptions were taken that the action should be by the President alone. But *per curiam*, "being a Corporation, it is natural for "them to sue by their name of creation." 1 *Lord Raymond*, p. 153. *Hil. Term* 8 & 9, *Will.* 3. See also *The President and College of Physicians v. Salmon*, B. R. *Trin. Term* 13 *Will.* 3. 1. *Ld. Raym*, p. 680; 5 *Mod.* 327; and this appears to be the best

(*a*) This must be strictly laid in the declaration, for in the case of the College against Bush, 4 Mod. 47, an exception was taken to the Declaration, "that the defendant practised Physic in Westminster," without stating that Westminster is within seven miles, &c. and the defendant had judgment. See also 12 Mod. 10.

(*b*) For the same case see also Brownlow, part 2. Merrett's Collec. p. 79.

rule. In the previous case of *The President of the College v. Tenant. Hill. Term.* 11 *James, Bulstrode's Rep. Part.* 2, *p.* 185, the action was brought by the President alone, on which the Judges were divided in opinion, *Haughton* Justice saying, "he may here well bring the action alone in his own name," but the Declaration being bad in other respects, the rule of the Court was, *Quod querens nil capiat per Billam.* The Entry in *Rastal, p.* 426, is in favour of the doctrine that the President may sue alone, as is also the case of Doctor *Laughton v. Gardner*, 4 *Croke, p.* 121. *Trin. Term.* 4 *James*, and more especially the consequent case of Doctor *Atkins v. Gardner*, 2 *Croke*, 169 *Pasc* 5 *James*, where Dr. *Laughton* having brought an action of debt on the Statute, as President of the College obtained judgment *Nisi*, but dying before execution, his successor *Doctor Atkins*, brought a *scire facias* against the defendant to have execution, it was therefore demurred because the *scire facias* ought to be brought by the executor or administrator of him who recovered and not by his successor; but the Court held that the successor might well maintain the action, for the suit is given to the College by a private Statute, and the suit is to be brought by the President for the time being, and he having recovered in right of the Corporation, the law shall transfer that duty to the successor of him who recovered and not to his executors. 1 *Rolle Abr.* 515.

The penalties are to be recovered by action of debt in *the President and College v. Salmon*; 1 *Ld. Raym, p.* 680. (*a*) an exception was taken that the proceeding should be by information at the suit of

(*a*) See same case, 5 *Mod.* 327; 2 *Salk.* 451, and cases there cited.

the king, but the Court decided that where a certain penalty is given by a statute the person to whom, &c. shall have debt by construction of law. Another exception was taken in the same case, that the action ought not to be brought *tam quam*, no action being given to the king. *Sed non allocatur.* For *per curiam*, the precedents are the one way and the other. See *Butler v the President Cro. Car.* 256. and cases there cited. (*b*)

The words of the Statute of *Henry* being strongly prohibitory, none may practise physic under any authority, in London and within seven miles without licence of the College; in *the College of Physicians, v. Bush. 4 Mod. p.* 47. the defendant pleaded letters patents of king Charles the second, by which free liberty is given to French protestants to exercise the faculty of Physic in London and Westminster, &c. and that he was a French protestant. Upon demurrer the plea was held ill. For a Charter or Letters Patent cannot vary an act of Parliament.

The next material point to be considered is, what is a practising of Physic within the meaning of the statutes; this would at first sight appear to be a very simple question, but the act of the 34th *Hen.* 8. which gives liberty to persons not being Surgeons, to administer outward medicines in certain cases, and drinks for the Stone, Strangury, and Ague, created some difficulties; it was pleaded in the case of Doctor

(*b*) See also *the King and the President and College of Physicians against Marchmont Needham. Trin. Ter.* 28 *Car.* 2. B. R. *Goodalls Pro.* 273. *Coll. of Phys. v. Bugge*, 15 *Car.* 1. *Scacc. Mag. Rot.* 23, *Car.* 1. *Goodall* 259. *Coll. v Bourne*, 24 *Car.* 2: *Coll. v Harder: Coll. v Merry: Coll. v Stone*, 35 *Car.* 2: *Goodall* 275. *Coll. v Levett*, 1 *Ld. Raym.* 472: *v Salmon. ib.* 680: *v Talbois. ib.* 153: *v West. ib.* 472; *Coll. v Tenant. Jones* 262. *Dr. Trigg v the Coll. Stiles Rep.* 329.

Butler against the President of the College, (*Cro. Car.* 256,) to which plea the President replied by showing the Statute of the 1 *Mary*, *c.* 9. which confirms the Charter and Statute of the 14th *Hen.* 8. and appoints that it shall be in force notwithstanding any Statute or Ordinance to the contrary; on this several questions arose; those which relate to the special pleading of the case we omit, but the interpretation of the Statutes is material; it was doubted first whether the 34th *Hen.* 8. did repeal any part of the 14th as to Physicians, or whether as the preamble recites, it was directed against Surgeons, and next whether if it were in any degree repealed, the Statute 1st *Mary* did not revive the 14th and repeal the 34th. "*Rich-*
"*ardson*, chief Justice, conceived it was repealed by
"*primo Mariæ*, by the general words, any act or
"Statute to the contrary, of the act of *decimo quarto*
"*Henrici Octavi*, notwithstanding. But I "(*loquitur*
"*Croke*,") conceived that the act of *tricessimo quarto*
"*Henrici Octavi*, not mentioning the Statute of *decimo*
"*quarto Henrici Octavi*, was for Physicians; but the
"part of the act of *tricessimo quarto Henrici octavi*,
"was concerning Chirurgions and their applying
"outward medicines to outward sores and diseases,
"and drinks only for the Stone, Strangury and Ague;
"that Statute was never intended to be taken away
"by *primo Mariæ*. But to this point, *Jones* and
"*Whitlock*, would not deliver their opinions; but
"admitting the Statute 34 *Hen.* 8. be in force, yet
"they all resolved, the defendants, (*a*) plea was
"naught, and not warranted by the Statute;
"for he pleads, that he applied and ministered

* Doctor Butler was defendant, though first mentioned in this Report, the decision being in the King's Bench, on error of a judgment in the Common Pleas for the original cause. *Coll. of Phys. v Butler*, See *Sir W. Jones*, *Rep.* 261; *Littl. R.* 168, 212, 244, 349.

" medicines, plaisters, drinks, *Ulceribus Morbis et* " *Maladiis, Calculo Strangurio, Febribus et aliis in* " *Statuto mentionatis;* so he leaves out the principal " word in the Statute (*Externis*), and doth not refer " and shew that he ministered potions for the Stone, " Strangulation or Ague, as the Statute appoints to " these three diseases only and to no other; and by " his plea his potions may be ministered to any other " sickness; wherefore they all held his plea was " naught for this cause, and that judgment was " well given against him; whereupon judgment was " affirmed." This case is reported more fully in *Brownlow*, p. 126. See also *Goodall*, p. 221 to p. 259.

But though this statute 34 *Hen.* 8th gave a very considerable latitude to unlicensed practice, the decision of the House of Lords in the case of *Rose* has rendered it yet more difficult to determine what is a practising of Physic within the statute 14 *Hen.* 8th.

This case arose on an action in the King's Bench for practising Physic within seven miles of London without licence; the case upon a special verdict was, that the Defendant being an Apothecary by trade was sent to by *John Seale* (*a*), then sick of a certain distemper, and he having seen him, and being informed of the said distemper, did without prescription or ad-

(*a*) The letter of *John Seale*, which induced the College to bring this action, was as follows. " *May* the *5th*, 1704. These are to certify, " that *I*, *John Seale*, being sick and applying myself to this *Mr. Rose* the " Apothecary for his directions and medicines, in order for my cure; " had his advice and medicines from him a year together: But was so " far from being the better for them that I was in a worse condition " than when he first undertook me; and after a very expensive bill of " near £50. was forced to apply myself to the Dispensary at the Col- " lege of Physicians where I received my cure in about six weeks time, " for under forty shillings charge in medicines." *See a Pamphlet published on this case, London* 1704, *and other works mentioned in Gough's Topography.*

vice of a Doctor and without any fee for advice, compound and send the said *John Seale* several parcels of physic as proper for his said distemper, only taking the price of his drugs; and if this were a practising of physic, such as is prohibited by the Statute was the question: and after several arguments the Court at last unanimously agreed, That practising of Physic within this statute consists, 1st, In judging of the disease and its nature, constitution of the patient, and many other circumstances. 2ndly, In judging of the fittest and properest remedy for the disease. And 3dly, In directing and ordering the application of the remedy to the diseased. And that the proper business of an Apothecary is to make and compound, or prepare the prescriptions of the doctor pursuant to his directions. It was also agreed, That the Defendant's taking upon himself to send physic to a patient as proper for his distemper without taking ought for his pains, is plainly a taking upon himself to judge of the disease and fitness of the remedy, as also the executive or directing part. *Et per tot. Cur.* The Plaintiff had judgment. 6 *Mod.* 44. 16 *Vin. Abr.* 341. Against this judgment the Defendant *Rose* brought a Writ of Error to the House of Lords, "That judgment having been given in the Queen's Bench against the "now Plaintiff on a special verdict, he humbly hopes "the same shall be reversed for these reasons:

"That the consequence of this judgment will en- "tirely ruin the Plaintiff in his trade, and indeed all "other Apothecaries, since they can't (if this judg- "ment be affirmed) use their professions without the "prescript or license of a Physician.

"That the constant use and practice (*a*) which has

(*a*) It does not appear to have been made out in evidence that the constant use and practice had been with the Apothecary, on the con-

" always been with the Apothecary, shall as we hum-
" bly hope be judged the best expounder of this
" Charter: and that selling a few lozenges, or a
" small electuary, to any asking a remedy for a cold,
" or in other ordinary or common cases, or where the
" medicine has known and certain effects, may not
" be deemed unlawful, or practising as a Physician,
" when no fee is taken or demanded for the same."

" That the Physicians by straining an Act made so
" long ago, may not be able to monopolize all man-
" ner of Physic solely to themselves; and the rather,
" for that such a construction will not only be the
" undoing of the Apothecaries, but also,

" 1. A tax on the Nobility and Gentry, who in the
" slightest cases, even for their servants, can't then
" have any kind of medicines, without consulting and
" giving a fee to one of the College.

" 2. An oppression to the poorer families not able
" to go to the charge of a fee; the suppressing of the
" Apothecaries being to deprive such poor people and
" families of all manner of assistance in their necessi-
" ties.

" 3. A certain prejudice to all sick persons on sud-
" den accidents, and new symptoms arising, especially
" in acute diseases, and in the night, wherein if the

trary, they did not commence practice (except indeed the occasional sale of some simple lozenge or electuary which was never objected to) till after the great fire, when the known residences of the Physicians having been destroyed, their patients were unable to find them, and consequently resorted to the Apothecaries, whose open shops were a sufficient guide to those who needed medical assistance. It is probable also that some laxity arose during the preceding years in which the Plague raged in London, for in times of emergency it would be unreasonable to insist on restrictions which it might be impossible and inhuman to enforce. (*Merett's Short view of Frauds & Abuses, A.D.* 1699).

" Apothecary is called, and shall dare to apply the " least remedy, he runs the hazard of being ruined, " or the Patient the danger of being lost."

" For all which, and several other errors in the " Record, it is humbly prayed," &c. &c.

It must be observed that these reasons turn on the policy and not on the law of the question, and would have been better addressed to the House of Peers in their legislative, than in their judicial capacity; the hardship of depriving the Apothecaries of all practice, and the inexpediency of too strictly enforcing the statute of *Henry* 8th, might have justified an application to the Legislature for an alteration of the law, but they could not warrant even the highest tribunal in the land in departing from the law established by Act of Parliament, and gravely decided by the judges; we must therefore conclude that some better arguments were adduced on the hearing than have been handed down to us by the reporters; for if seeing the patient, judging of the complaint, and administering the proper remedies for it, be not a practising of Physic within the meaning of the statute, we must confess ourselves utterly at a loss to define the practice which is. It is a futile and unworthy subterfuge to allege that no fee is taken for advice, and that the sum charged is only the price of the drugs, for the contrary is evident; the poacher might as well pretend (as has been done) that he sells the basket at his own price, and throws the hare into the bargain, as a compliment to the purchaser,—or the vender of nostrums might attempt to avoid the stamp duty by selling the bottles and giving the physic. We are very far indeed from wishing to put unfair restraints on trade, or to deprive any class of men of the free exercise of

their professional abilities, but as the Legislature has deemed it necessary to guard the corporeal health of the people, by enacting that only persons who on examination by a competent authority have been found of sufficient ability shall practise, we have thought it our duty to point out the law as it stands, and if in doing so we are occasionally obliged to hint at defects, we do it in the hope that by drawing abler attention to a neglected subject, we may incidentally give rise to some improvements, beneficial not only to the public at large, but ultimately profitable to those who, at the first glance might think themselves injuriously affected by them.

We have noticed that the reasons alleged by Writ of Error against the judgment of the Court of King's Bench in the case of *The College of Physicians against Rose*, do not appear to us to have been legally satisfactory, the judgment of the King's Bench (*a*) however was reversed, (*see* 1 *Brown's Parl. Ca.* 78. *and Appendix*, 126), and consequently the greater portion of the practice of Physic has been transferred to the Apothecaries. This was for some time a very serious evil; they who had been educated as mere compounders, suddenly became prescribers of medicine; it is easy to conceive how large a portion of ignorance and empiricism was thus let loose upon the public: the mischief has indeed gradually decreased, as many men of liberal education have entered the field thus enlarged for them, and the natural effect of competition has induced improvement; still something is wanting. In large towns and among the higher and middle classes of society, talent and me-

(*a*) The trial having taken place in the reign of Queen Anne we should have written Queen's Bench, but the title of the Court in common use is perhaps best adapted to general comprehension.

diocrity soon find their proper levels; but at a distance in the country, ignorance and imposture may erect their stages at least with impunity, and more than probably with success; we have ourselves heard most lamentable accounts of the mal-practice to which the poor and ignorant have been subjected by low country practitioners and their assistants; for the interpretation of the law which let in the Apothecary to unrestrained practice, could not exclude the apprentice, and we therefore find the shop-boy in cases of emergency visiting and prescribing for his master's poorer patients.

For these, among other reasons, the Apothecaries' Company have obtained an Act of Parliament to alter and enlarge the powers of their Charter. "And "whereas much mischief and inconvenience has "arisen from great numbers of persons in many parts "of England and Wales exercising the functions of "an Apothecary who are wholly ignorant, and ut-"terly incompetent to the exercise of such functions, "whereby the health and lives of the community are "greatly endangered; and it is become necessary "that provision should be made for remedying such "evils; Be it therefore, &c." This passage, from a Statute solicited by the Apothecaries themselves, will exonerate us from any imputation of illiberal remark; we sincerely hope that the Act will produce the intended benefit, though when we have occasion to treat of it more at large under the head of the *Apothecaries Company*, we may have occasion to point out some particulars in which we think it might be amended.

We have thus cited the leading cases on unlicensed practice, and the authorities which we have quoted will enable the medical reader desirous of better in-

formation, to pursue the enquiry to the fountain head. "*Melius est petere fontes quam sectare rivulos.*"

The next branch of the jurisdiction of the College is yet more important, as it extends to the control and punishment of *Mala Praxis* (*a*), whether by persons licensed or unlicensed. On this head the leading case is that of *Groenvelt and Burwell* (*b*), (1 *Comyns* 76: 1 *Salk* 396; *see Appendix*). A complaint having been made to the College of Physicians, informing them that Dr. *Groenvelt* had administered Cantharides in powder, he was summoned before the Censors and by them committed for *mala Praxis*; for this imprisonment he brought his action in the King's Bench, *Trin.* 12 *Will.* 3. from which it appears that "The "Censors of the College of Physicians in London are "impowered to inspect, govern, and censure all "Practisers of Physic in *Civitate* London' and seven "miles round, so as to punish by fine, amerciament, "and imprisonment. Per *Holt* Ch. J. the Censors "*have a judicial Power*; for a power to examine, "convict, and punish, is judicial, and they are judges "of record because they can fine and imprison, and "being judges of the matter, what they have adjudged "is not traversable."

In *mala Praxis* it matters not whether the party offending be a member of the College, a Licenciate, or an unlicensed Practitioner, for the Statute gives jurisdiction over all Physicians whatsoever, "*habeant* "*supervisum et scrutinium, correctionem et guberna-*

(*a*) It has been solemnly resolved, that *Mala Praxis* is a great misdemeanor and offence at common law. 3 *Bl. Com.* 122: 1 Lord *Raym.* 214.; an act of grace will include *Mala Praxis*; for the remedy of the injured party by Action on the Case, *vide post.*

(*b*) See also 1 Lord *Raym* 454. same Case: *Carth* 421. 491: *Salk* 144. 200. 263.

" *tionem omnium et singulorum dictæ civitatis medi-*
" *corum utentium facultate Medicinæ in eadem civitate*
" *ac aliorum medicorum forensicorum quorumcunque*
" *facultatem illam medicinæ aliquo modo frequentan-*
" *tium et utentium infra eandem civitatem et suburbia*
" *ejusdem sive infra septem miliaria in circuitu ejusdem*
" *civitatis*," and Ch. J. *Holt* says, " Though a per-
" son be not one of the College, yet if he practise
" Physic within their jurisdiction, he ought to subject
" himself to the law as well as any other." 12 *Mod* 393. And for those who are not Physicians but have assumed the character, they must take it *cum onere*, and will be estopped from pleading the illegality of their practice when punished for the irregularity of their prescriptions: it is to be wished however that the words of the Charter were more explicit in this particular.

Nor are the Censors liable to any action for error in judgment, for " though the Pills and Medicines
" were really *Salubres Pilulæ et bona Medicamenta*,
" yet no action lies against the Censors; because it
" is a wrong judgment in a matter within the limits
" of their jurisdiction, and a judge is not answerable,
" either to the king or the party, for the mistakes or
" errors of his judgment, in a matter of which he has
" jurisdiction: it would expose the justice of the na-
" tion, and no man would execute the office upon
" peril of being arraigned by action or indictment
" for every judgment he pronounces." (1 *Salk*, 397).

" *Holt* Ch. J. said, it seemed to him that the
" Censors may tender an oath as a necessary con-
" sequence of their judicial power; but said he would
" give no positive opinion." *Dr. Grenville* v *Coll. of Phys.* 12 *Mod.* 392. 16 *Vin. Ab.* 345. the general rule is, that where a statute confers a power, the law

supplies all necessary incidents required for its execution.

By the 10th *Geo.* 1. *cap.* 20. *s.* 7. Where any person is condemned by the Censors for not well executing, practising, or using the faculty of Physic, he may within fourteen days after notice appeal to the College, and the judgment given on such appeal shall be final. Sect. 3. of the same act gives a similar right of appeal to Apothecaries. But this Act, as we have before observed, has expired; should its enactments ever be revived, this right of appeal should not be omitted, for it is expedient that some control should be exercised over all summary jurisdictions. To the policy of the 3d and 6th sections we cannot so readily give our assent; the one exempts drugs in merchants warehouses from search, and the other enacts that Patentees for the sole making any medicine shall not be prejudiced thereby. By the first of these the Censors are excluded from some known manufactories of factitious drugs, and an important security is taken away from our export trade, for it is evident that foreigners would more readily buy the drugs which have passed through our hands, if they were assured that their quality had been subjected to strict and competent scrutiny. To Patent Medicines we may be allowed to avow our most decided hostility, and as it is notorious that the greater part of them are not made up according to their specifications, we may without charge of illiberal prejudice claim for the public some security that the preparations which they buy as "*mild vegetable extracts*," may not be clandestinely poisoned with Antimony, Mercury, and Arsenic. It may be said that the public have a remedy by the forfeiture of the Patent consequent on the falsehood of the specification, but this can only

be effected by an expensive process to which the mere purchaser of a phial of trash may not choose to subject himself, even if he have skill enough to detect the fraud practised upon him. (*a*)

We have thus shown by repeated precedents that none can legally practise Physic in London, or within seven miles circuit of the city, who are not either Fellows or Licenciates of the College, nor can any, except Graduates in Physic of Oxford and Cambridge, lawfully practise in the country, without a similar license; yet, as the Act of Parliament has annexed no specific penalty to the transgression, the only remedy in such case is by indictment for a misdemeanor: for where there is no punishment attached by statute to the violation of a prohibitory clause in an Act of Parliament, this indictment lies. (See 4 *Term Rep.* 202.)

Unfortunately the history of the College litigations does not cease with their proceedings against unlicensed practitioners; they have also had to contend, on the defensive, with their own Licenciates, who have claimed a full participation in the rights and privileges of the Fellows: (*b*) we hope most earnestly that the question is now at rest, and that the cases we are about to cite may serve as beacons to

(*a*) But query, as this protecting section has expired, are Patent Medicines now exempted from the examination of the Censors?

(*b*) Modes of election, unless specially pointed out by Statute or Charter, must depend on Bye-laws and usage. See *the King and the Vice-Chancellor of Cambridge*, *ubi supra*, and many other cases of Corporations. The Power of amotion or expulsion is also incident to most Corporate Bodies. See *Rex* v. *the Mayor, Burgesses and Common Council of Liverpool*, 2 *Burr. R.* 724: *Rex* v. *Richardson*, 1 *Burr. R.* 517. We do not find that the College has ever been compelled to execute this painful duty.

avoid passed errors, not as precedents for future proceedings.

"It would require a volume," says Sir *James Burrows*, vol. 4. p. 2186, "to give a full and particular detail of this long contest between the Fellows and the Licenciates; which was litigated with "great spirit and eagerness between several very "learned and respectable gentlemen of the faculty "on both sides. It must not therefore be attempted "within the compass of a collection, already perhaps "too faulty in this respect (*a*), as being in many instances more minute and circumstantial than may "appear absolutely necessary, or at all agreeable to "some readers."

"The substance of it ought not however to be "omitted, which was as follows."

"A rule had been obtained upon the application "of Doctor *Letch* for the College of Physicians to "shew cause why a mandamus should not issue, "directed to them, commanding them to admit *John* "*Letch*, Doctor of Physic, to be a member of the "College."

"This Rule was made upon the whole body of the "College or Community of the Faculty of Physic of "the city of London; and also on the President and "Censors of the said College."

(*a*) We adopt the apology of the learned reporter both in words and substance; for we are well aware that many of our readers must be heartily tired of this long detail of litigations, which, as we hope, are not again to be required as precedents; yet we have deemed it necessary to give this account of the powers and privileges of those Corporate Bodies, to whom we must at least look for the elucidation of the medical branches of jurisprudence, and from whom we might expect the best execution of the laws respecting the public health, should they ever be in this, as they have been in most other countries, reduced to a regular system of Medical Police.

" Mr. *Yorke* against the Rule, Sir *Fletcher Norton* " for it."

" The short state of the material facts, with respect " to this mandamus, was, that Doctor *Letch*, who " practised as a Man-Midwife, (*b*) was summoned by " the College to be examined. He thereupon came " in, and was examined thrice at the *comitia mino-* " *ra* : And after the third of these examinations, he " was there balloted for ' Whether he should be " ' *approved of by them* or not.' A dispute arose " upon this ballot. The majority of the number of " balls *appeared* to be for approving him: but one " of the Censors declared ' that he had by mistake " ' put in his ball for approbation; which he meant " and intended to be against approving him.' It was " proposed to ballot over again, but the President " declared this to be an approbation by a majority of " votes on the ballot. On Doctor *Letch* being pro- " posed to the *comitia majora*, nineteen to three of " the members present were against putting the Col- " lege Seal to his letters testimonial. And he was " informed that he was not elected."

" His Counsel insisted that having been returned " sufficient by the *comitia minora*, he had already

(*b*) It is said that the College have determined not to interfere for the future with the licensing of Midwives; the policy of this resolution is very questionable, for the examination and licensing of persons in all branches of medicine is a public duty imposed upon them, which they are not at liberty to abandon or execute at their pleasure. It may be urged that this branch is rather Surgery than Physic; but as the College have once assumed the jurisdiction, it is doubtful whether they ought to relinquish it. The Surgeons might also disavow their obstetric brethren, and then the matter must revert, as of old, to the Bishops, who cannot be supposed to be the most competent judges of the necessary qualifications. Archbishop *Abbot*, a very conscientious divine, on a somewhat similar occasion, said " he knew not well how children " were made," and begged time to inform himself on the subject.

" acquired an inchoate right to admission, which the " Court would enforce the completion of, by man- " damus."(*a*) For the argument and authorities vide *Rex* v. *Askew ubi supra* and *Appendix.*

" Lord *Mansfield* in his judgment laid down the " following among other rules."

" The Court (i. e. of King's Bench) has jurisdic- " tion over Corporate Bodies to see that they act " agreeably to the end of their institution."

" Where a party who has a right has no other spe- " cific legal remedy, the Court will assist him by " issuing this prerogative writ (i. e. *mandamus*) in " order to his obtaining such right."

" But it is not a writ that is to issue of course, or " to be granted merely for asking."

" The College are obliged in conformity to the " trust and confidence placed in them by the Crown " and the public, to admit all that are fit; and to " reject all that are unfit."

" The judgment and discretion in determining on " skill, learning, and sufficiency to practise physic, is " trusted to the College, and the Court will not in- " terrupt them in the due and proper exercise of it. " But their conduct in the exercise of this trust thus " committed to them ought to be fair, candid and " unprejudiced; not arbitrary, capricious or biassed; " much less warped by resentment or personal dis- " like."

" It is possible that other causes of rejection than " insufficiency of skill may occur, as *badness of morals*, " for instance; of these the Court will judge."

" If they should refuse to examine the candidate at " all, the Court will oblige them to do it."

(*a*) A writ of certiorari will also be granted on occasion directed to the College. 2 *Hawk*, 406.

"The power (of admission) remains with the body; "and the examination by the President and four Cen- "sors is only preparatory, and for the ease of the "body at large."

"Every Fellow may examine and argue with the "candidate in the *comitia minora* though he has no "vote *there*."

"The delegation to the *comitia minora* to examine "is good."

"Mr. Justice *Aston* followed Mr. Justice *Yates* in "saying that Doctor *Letch* should rather have ap- "plied for a mandamus requiring the College to "grant him a license to practise within London and "seven miles of it, than for a mandamus to admit "him as a member."

"The *comitia majora* acted with great moderation "in admitting him to another examination.

"Mr. Justice *Hewit* declined giving any opinion "(on a point started in argument) whether London "Licenciates are *members* of the College or not; "though he hinted, that the more he thought of it, "the more he doubted it."

"We should go a great way if we should say 'that "'a Licenciate to practise within *London* and seven "'miles round is a *member* of the College'."

The Rule was accordingly discharged by the unanimous opinion of the Court.

But the matter did not rest here; the notion that the Licenciates were entitled to be considered as Members of the College, under the term Commonalty or otherwise, gained ground; and accordingly two terms after the original argument and judgment, Sir *Fletcher Norton* (afterwards Lord *Eardly*) moved

for a Rule upon Dr. *Askew* and others (the four then Censors), for them to shew cause why an information in nature of a *quo warranto* should not be granted against them, to shew by what authority they acted as Censors of the College of Physicians.

The objection was, that whereas the election ought to be by the *whole* body, these gentlemen had been elected only by a *select* body; namely by the Fellows, *exclusive* of the Licenciates, who *demanded admittance;* which was refused them by the Fellows, on pretence of their having no business there, upon that occasion.

After an argument on three several days, during which Sir *Fletcher Norton*, Mr. *Morton*, Mr. *Wedderburn* (afterwards Lord *Roslyn*,) (*a*) Serjeant *Glynn*, Mr. *Walker*, and Mr. *Mansfield* (afterwards Chief Justice of the Common Pleas), were heard for the Licenciates, and Mr. *Yorke* (afterwards Lord *Chancellor*), Mr. *Dunning* (afterwards Lord *Ashburnham*), Serjeant *Davy*, Mr. *Ashurst* (afterwards a Judge), and Mr. *Wallace* for the College, Lord *Mansfield* delivered his opinion. (*b*) "The question now before "us is singly this, Whether the persons applying for "the information *are Fellows* and *entitled to vote* in "the election of Censors. If they are, the election of "these Censors, being made in *exclusion* of their "votes, is *not good.* If they are not Fellows, and "have no right to vote in the election of Censors, "then this elcction stands unimpeached."

(*a*) The unprofessional reader will infer from the rank of the Counsel the importance which was attached to the case; and from their proved ability, that its merits were fully before the Court.

(*b*) For which, at greater length, as also for the arguments of the other Judges, see 4 *Burr.* 2195.

The question is, "Whether these *Licenciates* are Socii, or Collegæ, or Fellows," which are synonimous terms.

The facts are not disputed: and there is no doubt about the law. It has been admitted on both sides that there has been a great number of *by-laws* and *long-usages;* and the permission of these Licenciates *to practise* is not disputed. But I doubt whether this *permission to practise*, and these *letters testimonial*, can amount to an admission into the Fellowship of the Corporation or College. Nothing can make a man a Fellow of the College without the *Act of the College*. The power of examining, and admitting after examination, was not an arbitrary power, *but a power coupled with a trust*. They are bound to admit every person whom upon examination they think to be fit to be admitted, within the description of the Charter and the Act of Parliament which confirms it. The person who comes within that description has a *right* to be admitted into the *Fellowship;* he has a claim to several exemptions, privileges, and advantages, attendant upon admission into the *Fellowship;* and not only the candidate himself, if found fit, has a personal right, but the *public* has also a right to his service; and that not only as a physician, but as a censor, as an elect, as an *officer* in the offices to which he will upon admission become eligible. (*a*) They have power not only by their charter, but by the law of the land, to make fit and reasonable by-laws, subject to certain qualifications. It appears from the Charter and the Act of Parliament, that the Charter had an idea of persons who might practise physic in *London* and yet not be Fellows of the College. The Presi-

(*a*) A Fellowship is not in itself an office. *Carth.* 478.

dent was to overlook *not only* the College, but also "*omnes homines ejusdem facultatis.*" So when the College or Corporation were to make by-laws, these by-laws were to relate *not only* to the Fellows, but to *all others* practising physic within *London* or seven miles of it.

Then let us see how the usage was.

In 1555 they must have had a probationary license before admission into the College. Afterwards it was to be a probation for four years before admission. The College might grant such probationary licenses, with some reason, and agreeably to their Institution. This shews that some licenses were granted to persons not Fellows of the College. The 3 H. 8 takes away all former privileges. (*a*) In 1561, a *partial* license was granted to an occulist. A person may be fit to practise in *one* branch who is *not* fit to pratise in *another*. Licenses have also been granted to *women*. (*b*) *Partial* licenses have been given for above 200 years. (*c*) In 1581 notice is taken of *three classes*: Fellows, Candidates, and Licenciates. The licenses probably took their rise from that illegal by-law (now at an end) which restrained the number of Fellows to twenty.

This being premised, let us inquire "Who these gentlemen are that are now applying to the Court."

They are persons who set up a title directly contrary to the *sense* in which their license is given *to*

(*a*) Query of the Pope and Archbishop of Canterbury *inter alia?* *Vide ante.*

(*b*) And in midwifery it is desirable that the practice may be revived.

(*c*) A limited license had been granted to one *Shepheard* to practise upon Madmen, but with a proviso that a physician should also be called. Being summoned to answer a breach of this limitation, he appeared and submitted to the College censure. *Goodall* 466.

them and received by them. They cannot avail themselves of their instruments in this way: it would be a *cheat* upon the College. And they have acquiesced many years under this license given them by the College, as merely a license to practise.

But even supposing them to have a right to be Fellows, yet, as it is clear that the license does not make them *ipso facto* Fellows, they could not vote *in the election* of Censors *before their* admission to the Fellowship; and therefore the exclusion of their votes cannot impeach this election.

I am of opinion "that this rule ought to be discharged."

His Lordship (but this was *obiter*) then made some comment on the statutes and by-laws of the College; and recommended their revisal under the best advice, saying, "I see a source of great dispute and litigation in them as they now stand." (*a*)

Mr. Justice *Yates* concurred with the Chief, as did Mr. Justice *Aston* on some points; but upon the construction of the Charter and Act of Parliament, he thought that in grants of this kind, the construction ought to be made in a *liberal* manner; and this grant includes "*Omnes homines ejusdem facultatis de et in civitate prædictâ*," and the application to Parliament for the Act of 14 and 15 H. 8. to confirm the Charter is made by the six persons particularly named in it, "*and all other men of the same faculty* within the City of London and seven miles about." It seemed to him that the idea was "that all persons duly qualified, who took testimonials under the College seal, were

(*a*) This prophesy, like many others, was the cause of its own fulfilment, as will be seen in the sequel. Lord *Kenyon* in Doctor *Stanger's* case took occasion to lament that it had been made.

to be of the community." He should, however, give no opinion, he said, how it might turn out upon a *mandamus*.

Mr. Justice *Willes*, confining himself to the subject in question, concluded, "they cannot before their admission maintain this rule."

Lord *Mansfield* and Mr. Justice *Yates* said they gave no opinion how it might be upon a *mandamus*.

The Court were unanimous in discharging the rule.

The hint thrown out by three of the Judges was followed up by the Licenciates. On Thursday, 17th Nov. 1768, Sir *F. Norton* and Mr. *Norton* moved the Court on behalf of Doctor *Edward Archer*, and Mr. *Walker* on behalf of Dr. *Fothergill*, for writs of *mandamus*, to oblige the College to admit these two Licenciates, with an intention to try the question "whether the Licenciates had a right to be admitted Fellows;" and that litigation lasted till June 1771. But they only came round to the same point which had been already determined, as above; for these two gentlemen had accepted licenses under the by-law of 1737, and the Court were of opinion "that "they ought not afterwards to desert it, and treat it "as null and void; and set up a right of admission "under the Charter, upon the foundation of this very "license which they had accepted *under the by-law*, "upon the supposition that the by-law was a bad one." So that the return was allowed, upon that objection to their claim. And the intended question remained unsettled. See 5 Burr. 2740, where also will be found the form of the mandamus and the return. (*a*)

(*a*) At the conclusion of all these arguments Lord *Mansfield* was at great pains to impress upon the College the propriety of enlarging their rules for admission; some alterations consequently were made; but it

The last case on this subject is that of Doctor *Stanger*. (7 Term Rep. 282, which as the most recent decision, and for the luminous judgment of Lord *Kenyon*, we have inserted in the appendix.) This, like the cases in *Burrows*, was argued by the most celebrated lawyers of the day, Mr. Serjeant *Adair*, Mr. *Law*, (afterward Lord *Ellenborough)* Mr. *Chambre*, (afterward a Judge) Mr. *Christian*, (now Chief Justice of *Ely)* having argued in support of the rule; and Mr. *Erskine*, (afterward Chancellor) Mr. *Gibbs*, (Chief Justice C. P.) Mr. *Dampier*, (a Judge) and Mr. *Warren*, (now Chief Justice of *Chester)* against it. The rule for a *mandamus* was discharged; (*a*) it may therefore now be considered as a resolved point of law, that a Doctor of Physic, who has been licensed by the College of Physicians to practise physic in *London* and within seven miles, cannot claim as a matter of right to be examined in order to his being admitted a Fellow of the College. The College, who have power by their Charter (confirmed by Act of Parliament) to make by-laws, have made by-laws respecting the qualifications of persons to be admitted; by them it is ordained that no person shall be admitted into the class of candidates before admission into the College, unless he has taken a degree of M. D. at Oxford, Cambridge, or Dublin, except in two cases: in one of those cases the President may propose in every other year a Doctor of Physic of a certain standing, and if he be approved by the Col-

is more than doubtful whether they have yet satisfied the views of those who would have placed all the colleges of the empire on the same footing as the universities of Oxford and Cambridge, in respect of their prior claims to the honours of the College of Physicians.

(*a*) For some controversial observations on this case see Doctor *Wells'* letter to Lord *Kenyon* in his published works.

lege, he may be admitted a Fellow; in the other, any Fellow may propose a Doctor of Physic of a certain age and standing, and if approved at certain meetings he may be admitted a Fellow. And it was ruled that these were reasonable by-laws.

The following may now be considered as the legal classes of Physicians. 1st. The actual members of the College of Physicians, divided into their several denominations of President, Elects, and Fellows.

2d. Those who, being graduates of the universities of Oxford and Cambridge, are licensed to practise by the College in London and within seven miles during their respective periods of probation, previous to becoming Fellows; these are Candidates who, being Doctors of Physic, have undergone their examination for the Fellowship, and at the end of one year are capable of becoming members or Fellows of the College; and inceptor Candidates, (*a*) who being Bachelors of Physic aspire to the Fellowship.

(*a*) This class was very properly introduced to place the bachelors of Oxford and Cambridge on an equal footing, in certain respects, with the doctors of foreign universities. At Edinburgh a doctor's degree may be attained in three years, while in England the bachelor's degree requires five, and the Doctor's twelve years standing.

We have purposely avoided any discussion on the subject of the Pharmacopœias which have from time to time been published by the authority of the College; the propriety of forming one standard for medical preparations cannot be doubted, and it is equally indisputable that the College have, both by Charter and acts of Parliament, full power to enforce their regulations; in order to give greater publicity to which, His late Majesty in Council was pleased to issue a Royal Proclamation (for which see Appendix) commanding all persons to observe and obey the directions contained in the *Pharmacopœia Londinensis* of 1819. Technical objections from time to time have been raised against some of the directions of this work; as it would not fall within our limits or intention to canvass these questions, we shall content ourselves for the present with hinting that an extension rather than a diminution of this power is to be wished, and that the three kingdoms should be united in one general form of medical practice.

3d. The medical graduates of our two Universities.

4th. The Licenciates who are admitted by the College to practise in London and within seven miles, and the extra Licenciates who are admitted to practise in the country but not within the privileged district of the College.

These are the laws respecting Physicians as a body Corporate; we have not added their Statutes as they are separately printed, although they have never been published by the authority of the College. It now remains for us to notice their rights as individuals, the exemptions to which they are entitled, and the actions to which they are liable. (*a*)

(*a*) Vide Post. p. 72.

2. OF THE COLLEGE OF SURGEONS.

THE present College of Surgeons owes its existence to the Act of the 18th *Geo.* 2. *c.* 15. (*see Appendix*, p. 30), by which the Surgeons of London are separated from the Barbers, with whom they had been made one Company and Body Corporate, by the 32nd *Hen.* 8. *c.* 40. (*see Appendix*, p. 14), (*a*) previous to which period (A. D. 1540) the Surgeons had no incorporation; they had indeed petitioned for and obtained an Act of Parliament under the name of the Wardens and Fellowship of the craft and mystery of Surgeons enfranchised in London, stating their number not to exceed twelve persons, to which number the relief from "quests and other things" granted by the Act (5th *Hen.* 8. *c.* 6. *see Appendix*, p. 5), is limited; but it is evident by the preamble to the 32nd *Hen.* 8. that they, though called a Company, "be not incorporate nor have any manner of corpo-"ration" previous to that period. The examination of Surgeons, as that of Physicians also, had been confided to the bishops (3 *Hen.* 8. *c.* 11.), nor does it appear that the subsequent Act of *Henry* remedied this defect. By the 18th *Geo.* 2. however they have been made a separate and distinct Body Corporate and Commonalty, under the name of *Masters, Governors, and Commonalty of the art and science of Surgeons of* LONDON, by which name they may sue and be sued; (*Appendix*, p. 39). All liberties, privileges, franchises, powers, and authorities, which they might

(*a*) The Statute of 32nd *Hen.* 8. *c.* 42. continues in force as to the Barbers, notwithstanding that of 18 *Geo.* 2. *c.* 15. which separates them from the Surgeons. See *Sharpe qui tam agst. Law* 4. *Burr.* 2133.

have enjoyed under the united Company and their Act of Parliament, or under the Letters Patent of *Charles* the 1st, or the other Royal Grants, Charters, and Patents, therein mentioned and referred to, so far as they relate to the science of Surgery, are confirmed to them (§ 8. *Appendix*, p. 43). Now the Charter of *Charles* the 1st, as recited in the preamble of this Act, grants that "no person or persons whatsoever, "whether a freeman of the said society or a foreigner, "or a native of England, or an alien, should use or "exercise the said art or science of Surgery within "the said cities of *London* and *Westminster* or either "of them, or within the distance of seven miles of the "said city of London, for his or their private lucre "or profit, (except such Physicians as are therein "mentioned) unless the said person or persons were "first tried and examined in the presence of two or "more of the Masters or Governors of the mystery "and commonalty aforesaid for the time being, by "four or more of the said examiners so to be elected "and constituted as aforesaid and by the publick "Letters Testimonial of the same Masters or Gover-"nors under their common seal approved of and ad-"mitted to exercise the said art or science of Sur-"gery, according to the laws and statutes of the king-"dom of *England*, under the penalty in the said Let-"ters Patent mentioned." (*a*). (*see Appendix*, p. 36). The same Charter provides "That no one, whether "a freeman of the mystery or commonalty aforesaid, "or a foreigner, whether a native of England, or an "alien, exercising the art of Surgery within the cities "of *London* and *Westminster* or the suburbs or liber-"ties thereof, or within seven miles of the said city

(*a*) This prohibition under the Letters Patent could have no force till confirmed by Act of Parliament.

" of *London*, should go out from the port of *London*, " or send out any apprentice, servant, or other per- " son whomsoever, from the said port, to execute or " undertake the place or office of a Surgeon for any " ship, whether in the service of the Crown, or of any " merchant or others, unless they and their medi- " cines, instruments and chests respectively, were " first examined, inspected, and allowed by two such " Masters or Governors of the mystery and com- " monalty aforesaid for the time being, as were " skilled, knowing and professors in the same art of " Surgery, under the penalty therein mentioned;" (*see Appendix*, p. 37). And the Act (§ 9. *Appendix*, p. 44,) following the same principle, enacts " That " from and after the said first day of July, One " thousand seven hundred and forty-five, the Exa- " miners of the Company of Surgeons established by " this Act shall, and they are hereby required, from " time to time upon request to them made, to exa- " mine every person who shall be a candidate to be " appointed to serve as a Surgeon or a Surgeon's " mate, of any regiment, troop, company, hospital or " garrison of soldiers in the service of his Majesty, " his heirs or successors, in like manner as they do " or shall examine any Surgeon or Surgeons to be " appointed to serve on board any ship or vessel in " the service of his Majesty, his heirs or successors."

By section 3, (*see Appendix*, p. 39,) the College is empowered to hold Courts and Assemblies and to make By-laws, Ordinances, Rules, and Constitutions for the government of the Corporation, and those of the united Company concerning Surgery are declared to be in force till repealed. (§ 4. p. 40). By section 11 (*see Appendix*, p. 45,) it is provided that nothing contained in the Act shall abridge or infringe any of

the privileges, authorities, &c. of the College of Physicians.

These are the Acts of Parliament which at present regulate the profession of a Surgeon; it is evident that they are imperfect, as they do not give any power to restrain and punish ignorant pretenders, who without the slightest qualification assume this dangerous and difficult branch of practice, and most especially in the country. We are aware that any attempt of the medical Corporations to obtain an increase of their power, would create much outcry among those who are interested in the perpetuation of existing abuses; but we will hope that the public safety will be preferred to the private views of empirics; and that a due system of examination, license, and restriction of surgical practice throughout England, will shortly receive the sanction of the legislature.

We have only found one reported case of any consequence in which the College of Surgeons have been parties. In *Rex v. the Master and Wardens of the Company of Surgeons in London*, it was determined that a By-law requiring apprentices to have a competent knowledge of the Latin language, is good and reasonable; (*see* 2 *Bur.* 892. *and Appendix*). Continual attempts have been made to decry the value of classical attainment in the medical professor; the legal authorities however agree that the Corporations have the right of prescribing a due course of education as a necessary preliminary to admission; and we sincerely hope that these learned bodies will never abandon this principle, that none shall be admitted to the higher honors of their profession, who are not possessed of the ordinary acquirements of gentlemen.

In the year 1800 the Surgeons of London obtained a new Charter from his late Majesty, which after re-

citing the previous Charters and Acts of Parliament which we have noticed, proceeds thus: "And whereas "we are informed that the said Corporation of Master "Governors and Commonalty of the art and science "of Surgeons of London, hath become and now is "dissolved," &c. therefore His Majesty was pleased to incorporate the members of the late Company, and all such persons who, since the dissolution thereof, have obtained Letters Testimonial, &c. and confirmed to such new Corporation all gifts, grants, liberties, privileges, and immunities, possessions real and personal, &c. granted or confirmed by any previous Charter or Act of Parliament.

We confess ourselves at a loss to trace either the mode or date of the alleged dissolution; the Act of the 18th *Geo.* 2. is explicit as to the creation of a College of Surgeons, and we consequently find them recognised in the character of a Corporation in the cited case *Rex v. the Master and Wardens* (*Appendix* p. 153), which was tried in the 33d of *Geo.* 2.; but as the College have themselves admitted the fact, we must take it for granted that the recital is correct; how far the Charter of *Geo.* 3. unconfirmed by an Act of Parliament can revive their ancient rights may be a most material question; but as we are of opinion that the rights of this body should rather be increased than diminished we do not at present enter into it, in the hope that the defect, if it exist, will be shortly remedied by the Legislature. (*a*).

(*a*) The munificence of Parliament has been displayed towards this Corporation in the purchase and grant of the Hunterian Collection at the price of £15,000; and in the vote of £25,000 more towards the building of the College and Museum in Lincoln's-inn-fields.

3. OF THE SOCIETY OF APOTHECARIES.*

In 1666 the Apothecaries and Grocers were united in one Company by Charter of the 4th of *James* the First, but this union did not long continue, for in

* The reader will find much curious and learned research upon the origin and history of Apothecaries, in *Beckmann's History of Inventions*, *vol.* 2. p. 127.

The word *Apothecary* originally signified any proprietor, or keeper of store, magazine, or warehouse, (απο τιθημι, *to put off.*) See *Glossarium Manuale*, *vol.* 1. p. 298. From the word *Apotheca*, the Italians have made *Boteca*, and the French *Boutique*. It would therefore be a great error to consider the term *Apothecarius*, as it is met with in the writings of the thirteenth and fourteenth centuries, as denoting a character similar to the Apothecary of the present day. As we learn from the writings of Hippocrates, Theophrastus, Galen, and other authors, that the Greek and Roman Physicians prepared their own medicines, it is evident that in those times the office of the Apothecary was quite unnecessary; the medicinal herbs were purchased of dealers, who after a time very naturally professed a knowledge of the medical properties of the articles which they sold, and accordingly began to deal in compound remedies, and to boast of various nostrums; such were the PIGMENTARII, SEPLASIARII, PHARMACOPOLÆ, and MEDICAMENTARII, of whom we read in ancient authors. That the Pigmentarii dealt in medicines is proved by the law which established a punishment for such as sold poison, to any person, through mistake, viz. "*Alio Senatus consulto effectum est, ut* PIGMENTARII, *si cui temere Cicutam, Salamandram, Aconitum* ——————— *et id quod lustramenti causa dederint Cantharidas pœna teneantur hujus legis.*" Digest. Lib. xlviii. Tit. 8. 33. These Seplasiarii appear to have latterly assumed the office of Apothecary, for Pliny (Lib. xxxiv. c. 11.) reproaches the Physicians for not making up their own medicines instead of trusting to these persons. That the PHARMACOPOLÆ carried on the same trade appears evident from their name; but no one seems to have placed any confidence in them; on the contrary, they were despised for their impudent boasting, and the evtravagant praise which they bestowed upon their commodities. Μειμειται που και φαρμακοπωλης ιατρον. "*Pharmacopola imitatur Medicum, Sophista Philosophum, Sycophanta Oratorem.*" (*Maximus Tyrius, Dissert.* x. p. 121.) and again, "*Itaque auditis, non auscultatis, tanquam Pharmacopolam; nam ejus verba audiuntur, verum ei se nemo committit, si æger est.*" (*Cato in Aulum Gellium, Lib.* 1. *c.* 15.) From these words it appears that the

1615, by Charter of the 13th of the same king, (*a*) the Companies were again separated (see *Goodall*'s collect. p. 119. *Appendix* 71.) This was done upon the representation of some of the Apothecaries, backed by the approval of Doctors *Mayerne* and *Atkins*, then the King's physicians, by whose interest and solicitation this new Charter appears to have been obtained. The Letters Patent, after reciting the Charter of the 4th of the King, and that many empirics and ignorant persons had taken upon themselves the art and mystery of Pharmacoplists, compounding hurtful, corrupt and pernicious drugs, declared that the Apothecaries of and within seven miles compass of the City of London should thenceforth be separated from the Grocers, and be made a Corporation, under the names of the Master, Wardens and Society of the art and mystery of Pharmacopolists in London, to sue and be sued as other Corporations; to have a common seal, and power to purchase and hold lands in fee simple or for years. To be subject however to the magistracy of the City of London, as other City companies. None but natural born subjects to be members. The Company or Society is enabled to

Pharmacopola, even in those days, attempted to practise Physic. Dr. Mohsen, quoting from Anderson (*Geschichte des Handels* ii. p. 365.) says, that king Edward III. in the year 1345, gave a pension of Sixpence per diem, to one Coursus de Gangeland, an Apothecary in London, *for taking care of, and attending his Majesty, during his illness in Scotland*, and this is the first mention of an Apothecary in the Fœdera. The first legal establishment, however, of such a class as Apothecaries, may be dated from the well known Medicine Edict (see *Lindenbrogii Codex Legum Antiquarum. Francof.* 1613. *Fol.* p. 809.) of the Emperor Frederic II, issued for the kingdom of Naples, by which it is required that the CONFECTIONARII should take an oath to keep by them fresh and sufficient drugs, and to make up medicines according to the prescriptions of the Physicians.

(*a*) This Charter is stated in the preamble of the 55th *Geo* 3. c. 194, to have been in the 15th of *James*.

elect a Master, two Wardens, and twenty-one Assistants, in the manner prescribed, to have a hall or council house, to keep a court or convocation to consult on statutes, laws, articles, &c. The power of making By-Laws for the government of the society is vested in the Master, Wardens and Assistants, or thirteen of them (of whom the Master must be one), on public summons; provided however that in all orders concerning medicines and their composition they should consult with the President and Censors of the College of Physicians, or with some other physicians named for that purpose by the President. They have power to punish by fines and amercements to the use of the Company, without giving account, but such fines must be moderate and not contrary to law. The first Master *(Edm. Phillips)*, Wardens and Assistants (*a*) are named in the Letters Patents, with special direction as to the manner in which they are to take their respective oaths of office, and the future election of Master and Wardens is vested in the Assistants, who have also the sole power of filling up vacancies in their own number, whether caused by death, removal or otherwise; with power to administer the oath of office, as well to every Master and Warden as to every newly elected Assistant. No Grocer or other person whatsoever may keep an Apothecaries shop for the compounding medicines, &c. till he have served seven years apprenticeship to some Apothecary, nor can such Apprentice be made free unless allowed by the President of the College of Physicians, (*b*) or some Physician or Physicians deputed by him, who is or are to be present at the examination by the Master and Wardens (if upon

(*a*) As are also 114 persons who were the first members.

(*b*) See *Goodall*, 439. 466.

notice such Physician or Physicians shall be unwilling to attend.) The Company have power to enter the shops and houses of all persons following the mystery of Apothecaries, both in the City and suburbs, to search and try medicines, and to burn all unwholesome and hurtful medicines before the doors of the delinquents, in which all civil officers are to give them all necessary assistance; this power is however to be without prejudice to the rights and privileges of the President of the College of Physicians, who are to enjoy all powers and authorities as before (*a*), and especially to have the same power in their searches to call the Master and Wardens of the Apothecaries Company as of the Grocers. Lastly, the practice of Surgeons is confirmed, so that they do not vend medicines after the manner of Apothecaries.

This Charter was lately confirmed (except as therein altered) by Act of Parliament, 55 *Geo. 3. c.* 194. By this Statute the Company's former power of search for unwholesome medicines is repealed, and in lieu thereof the Master, Wardens and Society of Apothecaries, or any of the Assistants, or any other person

(*a*) This proviso was not necessary, for the Charter could in no way alter the authority given by an Act of Parliament.

(*a*) Certain Apothecaries, and with some reason, object to this power; for as the Apothecaries Company have erected an extensive establishment for the sale and preparation of drugs and medicines, the private Apothecaries deem it unjust, that their competitors in Trade should be made the judges of the quality of the very articles in which both deal; the public, on the contrary, derive considerable benefit from the circumstance, as the lynx-eyed jealousy of rivals is added to other inducements of the public body to do its duty, and of the private individuals to expose their errors if they deviate from it: under such circumstances however the Society of Apothecaries ought not to have an absolute power of condemnation; an appeal should be allowed to the Censors of the College of Physicians, or some other authority competent to the decision of such cases.

or persons properly qualified to be by the Master and Wardens assigned, not being fewer in number than two, shall, as often as to the said Master and Wardens may seem expedient, enter in the day time, any shop of any person using the art and mystery of an Apothecary in any part of *England* or *Wales*, and search if the medicines, simple or compound, Wares, Drugs, or any thing whatsoever therein contained and belonging to the art or mystery of Apothecaries, be wholsome, meet and fit for the cure, health, and ease of his Majesty's subjects; and all and every such medicines, wares, drugs, and all other things belonging to the aforesaid art, which they shall find false, unlawful, deceitful, stale, unwholsome, corrupt, pernicious or hurtful, shall and may burn, or otherwise destroy, reporting the name of the offender to the Master, Warden and Assistants, who may impose and levy on such person the following fines; for the first offence five pounds, for the second offence ten pounds, and for the third and every other offence the sum of twenty pounds. No person to be nominated to search drugs, or chosen to the Court of Examiners within the City of London, or thirty miles of the same, unless he be a member of the Society of Apothecaries, of not less than ten years standing; nor in any other part of England and Wales, or to be one of the five Apothecaries hereinafter mentioned, except he shall have been an Apothecary in actual practice for not less than ten years previously to his being so nominated or appointed. "And whereas, it is the duty "of every Person using or exercising the art and "mystery of an apothecary, to prepare with exactness "and to dispense such medicines as may be directed "for the sick by any Physician, lawfully licensed to "practise Physic by the President and Commonalty

" of the Faculty of Physic in London, or by either " of the two Universities of Oxford or Cambridge: " therefore" if any person using the mystery of an Apothecary shall refuse to compound or administer or deliberately or negligently, falsely or unfaithfully mix, compound, or administer any medicines ordered by any lawful Physician by any prescription signed with his initials, such person on complaint made within twenty-one days by such Physician, (*a*) and upon conviction of such offence before any of his Majesty's Justices of the Peace, unless such offender can shew some satisfactory reason, excuse, or justification in this behalf, forfeit for the first offence five pounds, for the second offence ten pounds, and for the third offence he shall forfeit his certificate, and be rendered incapable in future of using the art and mystery of an apothecary and shall be deemed incapable of receiving any fresh certificate until he shall faithfully promise and undertake and give good and sufficient security, that he will not in future be guilty of the like offence. (*b*) The Master and Wardens

(*a*) The words, or party agrieved, might have been properly inserted: as the act stands the patient has no remedy, if the Physician refuse to complain.

(*b*) The latitude of the conclusion as to renewal of certificates, in some degree cures and compensates the otherwise extreme severity of this clause, yet the jurisdiction might have been better given than to any Justice of the Peace; how such Magistrate, ignorant of medicine or chemistry, is to judge of the improper mixing or compounding of medicines, we do not pretend to anticipate, still less how he is to determine what shall be taken as a satisfactory reason, excuse, or justification. The most probable offence, to be committed in the country against this clause, will be, by substitution of cheap for expensive drugs; this is a very ordinary mal-practice which ought to be checked, but if the apothecary have not the expensive drug by some excusable accident, and then substitute another of equal efficacy, he would be held excusable in a case of emergency, by any medical authority competent to judge of the merits of the case; this an ordinary Justice of the Peace evidently cannot be.

may from time to time appoint deputies to act for them. The Master, Wardens, and Society of Apothecaries are appointed to carry this act into execution throughout England and Wales, but no act of the Master, Wardens, &c. shall be valid (except the search of drugs, &c. as before mentioned, the acts of the Court of Examiners, and of the five Apothecaries hereinafter mentioned) unless the same be done at some meeting to be holden in the hall of the Society. The powers granted to the Master, Wardens and Society, to be exercised by the Master, Wardens and Assistants for the time being, or the major part of them present; the number present at such assemblies not to be less than thirteen, of which the Master must be one. Twelve persons properly qualified shall be chosen and appointed by the Master, Wardens and Assistants (who may also remove or displace them from time to time as they may deem advisable) and such twelve persons, or any seven of them, shall be and be called the Court of Examiners of the Society of Apothecaries and shall have full power to examine all Apothecaries and Assistants to Apothecaries throughout England and Wales, and to grant or refuse certificates; this Court is to meet once a week at the Halls, a chairman to be appointed who in case of equality (his own vote included) shall have a casting vote. The Master, Wardens or Court of Assistants are to administer a prescribed oath of office (*a*) to the Examiners. The Examiners remain in office one year (except in cases of removal) and may be reappointed; in case of death the successor remains in office only to such time as his predecessor would have done. After the fifth of August, 1815, it shall not be lawful for any person (except persons already

(*a*) Quakers to affirm.

in practice) to practise as an Apothecary in any part of England or Wales, unless he shall have been examined by the said Court of Examiners and have received a certificate of his being duly qualified to practise as such; no person to be admitted to examination until he shall have attained the full age of twenty-one years, nor unless he shall have served an apprenticeship of not less than five years to an Apothecary and shall produce testimonials to the satisfaction of the Court of Examiners, of a sufficient medical education and of a good moral conduct. Persons intending to qualify are to give notice to the Clerk. It shall not be lawful for any person (except persons then acting as Assistants and except persons who have actually served an apprenticeship of five years (*a*) to an Apothecary) to act as Assistant to any Apothecary in compounding or dispensing medicines without undergoing an examination by the Court of Examiners (or by five Apothecaries hereinafter mentioned) and obtaining a certificate of his qualifications. The Master and Wardens or Court of Examiners may from time to time appoint Five Apothecaries (*b*) in any county throughout England and Wales (except within the city of London and thirty miles circuit) to act for such county in examining Apothecaries and their Assistants, for which purpose they shall hold monthly meetings in the county town, three to be a quorum and the Chairman in case of equality to have a casting vote. The sums to be paid for Certificates to be as follows; Ten pounds ten shillings to be paid to the Master, Wardens, &c. for Certificate to practise within London

(*a*) Query whether the better policy would not have been, to have subjected *all* persons to examination; a lad may be very stupid and dangerously ignorant even after five years practice in a remote village.

or ten miles circuit, and Six pounds six shillings for any other part of England or Wales, in which case the Certificate may be afterwards enlarged to London, &c. on payment of Four pounds four shillings. Any person practising (except persons in actual practice as before mentioned) without a Certificate shall for every such offence forfeit Twenty pounds, and Assistants (except as aforesaid) Five pounds. And no Apothecary shall be allowed to recover any charges claimed by him in any court of law, unless he shall prove that he was in practice on or before the first of August 1815, or that he has obtained his Certificate. Persons refused a Certificate to practise may apply again. (*a*) The Master, Wardens, &c. are to publish an annual list of all persons who in that year have obtained Certificates. The monies arising from Certificates to be at the disposal of the Master, Wardens, &c.; the penalties, one half to the informer and one half to the Master, Wardens, &c. Fines and penalties above Five pounds to be recovered by action at law in the name of the Master, Wardens and Society of the art and mystery of Apothecaries of the city of London; and if the fine or penalty be less than Five pounds, then the same shall be levied by distress warrant under the hand and seal of any Justice of the Peace acting for the city, county, town, or place where the offence was committed; and the distress is not to be held unlawful for want of forms. But this act is not to affect chemists or

(*b*) These five should also have had the power of searching drugs, &c. under certain restriction, as calling to their assistance one member at least of the College of Physicians, or any Licenciate or regular Graduate being a justice of the peace. It is in the country that the worst drugs, &c. are most likely to be found.

(*a*) An appeal to the President and Censors of the College of Physicians might have been a salutary check on this power of rejection.

druggists, (*a*) nor in any way to interfere with, lessen, prejudice or defeat any of the rights, authorities, privileges and immunities of the two Universities of Oxford and Cambridge, the Royal College of Physicians, the Royal College of Surgeons, or the said Society of Apothecaries. Actions against any Corporation for any thing done under this act to be brought within six months, and in the county in which the dispute shall arise; defendants may plead the general issue. The jury shall find for the defendants if such action have been brought without twenty-one days notice, and on verdict for the defendants or the plaintiff suffering discontinuance or nonsuit, they the defendants shall have double costs. This act to be deemed a public act.

Such is the general outline of the act under which the Society of Apothecaries have obtained a very considerable addition to their ancient powers (for the act itself we refer the reader to the *Appendix*); we are convinced that much public benefit may arise from a diligent use and exertion of these authorities, and from what we know of the parties now entrusted with them, we do not anticipate any evil from the mode or motives of their execution.

We do not think it necessary to enter into the details of the By-laws of this Society, nor into their

(*a*) We do not understand the policy of the exemption: it is surely as necessary to defend the public from unwholesome drugs, &c. whether sold by wholesale or retail, whether bought of a chemist or an apothecary. The censors of the college of physicians may search chemists and druggists wares in London, but as they have no power in the country, this point requires future consideration; for as prescriptions are now very generally prepared by persons who are nominally chemists, though in fact they exercise the ancient business of apothecaries, the public are as deeply interested in the goodness of the drugs kept by the one as by the other.

character as a trading Corporation; we may however remark that the quality of the medicines supplied by them to the Navy and East India Company, has been very generally approved; too much care cannot be taken to secure the purity and propriety of the assortments exported for the use of our gallant defenders; nor is there any good reason why the army should not be supplied under the same or a similar system; we do not mean that the Apothecaries Company should have an absolute monopoly of medicines for the public service, for such a grant would defeat the end proposed, but if under a fair and open competition they can furnish the necessary supplies of an equal quality and price with their rivals in trade, there are reasons of public expediency which would turn the scale in favor of a fixed and permanent Corporation, in preference to the individuals however respectable, whose trading may be more subject to accidents and vacilations.

We must not conclude our account of the Society of Apothecaries, without noticing the splendid botanic garden at Chelsea, which, for a period of a century and a half, they have possessed and carefully maintained: and it is worthy of remark, that this is the only depository of exotic and indigenous plants, in the vicinity of the metropolis, which belongs to any public body. From the account of this establishment by Mr. Field, *(a)* its early history appears to be involved in considerable obscurity; the company however were mere lessees of the ground, until the fee and inheritance of the estate, together with the manor

(*a*) "Memoirs historical and illustrative of the botanic garden at "Chelsea, belonging to the Society of Apothecaries of London."—London, 1820. This memoir was printed at the expense of the society, for distribution amongst its members.

of Chelsea, was purchased from Lord Cheyne by Sir Hans Sloane; when this distinguished naturalist and physician, by deed, containing certain covenants (*a*)

(*a*) The most important covenants contained in this conveyance, are the following, viz.

The release is dated on the 20th of February, 1721, and is made between the Honorable Sir Hans Sloane Baronet, President of the Royal College of Physicians, on the one part, and the Master, Wardens and Society of the art and mystery of Apothecaries of the City of London, on the other part. It recites the original lease from Lord Cheyne, and also the great expense which the society had incurred, in furnishing and carrying on the garden, as a physic garden, ever since that lease was granted. It states, that the fee and inheritance of the ground and premises were then vested in Sir Hans Sloane and his heirs. It further declares, that to the end the said garden may at all times hereafter be continued as a physic garden, and for the better encouraging and enabling the said Society to support the charge thereof, for the manifestation of the power, wisdom, and glory of God in the works of the creation, and that their apprentices and others may better distinguish good and useful plants, from those that bear resemblance to them, yet are hurtful, and other the like good purposes; the said Sir Hans Sloane, grants, releases and confirms unto the said Master, Wardens and Society, and their successors, all that piece or parcel of arable and pasture ground, situate at Chelsea in the County of Middlesex, at that time in their possession, containing three acres, one rood, and thirty-five perches, with the green-house, stores, barge-houses, and other erections thereon, to have and to hold the same for ever, paying to Sir Hans Sloane, his heirs and assigns, the yearly rent of £5, and rendering yearly to the President, Council and Fellows of the Royal Society of London, fifty specimens of distinct plants, well dried and preserved, which grew in their garden the same year, with their names or reputed names; and those presented in each year to be specifically different from every former year, until the number of two thousand shall have been delivered.* It is further provided, that if these conditions be not fulfilled, or if the society shall at any time convert the garden into buildings for habitations, or to any other uses, save such as are necessary for a physic garden, for the culture, planting and preserving of trees,

* This condition has been long since fulfilled. By an extract from the minutes of the Royal Society, it would appear that the last presentation of Plants took place on the 17th of February, 1774, being the 51st annual presentation, amounting in all to 2550 plants.

hereafter mentioned, gave the society full possession of, and a permanent interest in, the garden. The society do not appear to have been insensible to the liberal conduct of Sir Hans Sloane; a marble statue of their benefactor, executed by Michael Ryebrach, at the cost of £250, was erected by them in 1737, and it remains as a lasting memorial of his munificence, and of their gratitude.

plants and flowers, and such like purposes; then it shall be lawful for Sir Hans Sloane, his heirs and assigns, to enter upon the premises, and to hold the same for the use and benefit, and in trust for the said President, Council, and Fellows of the Royal Society, subject to the same rent, and to the delivery of specimens of plants, as above mentioned to the President of the College, or Commonalty or Faculty of Physic in London; and in case the Royal Society shall refuse to comply with these conditions, then in trust for the President and College of Physicians of London, subject to the same conditions as the Society of Apothecaries were originally charged with.

Power is also reserved for the President, or Vice President of the Royal College of Physicians, once or oftener in every year, to visit the said garden, and examine if the conditions above specified are duly observed and complied with.

4. OF THE EXEMPTIONS AND LIABILITIES OF MEDICAL PRACTITIONERS.

Physicians, Surgeons, and Apothecaries have been exempted from the performance of various civil duties by several Acts and Charters, and those exemptions which were at first limited, have by custom become so general, that they may now be considered as legally established.

By the 14 and 15 *Hen.* 8. *c.* 5. that part of the Charter of the College of Physicians, which exempts them from being summoned to or placed on any assizes, juries, inquests, inquisitions, attaints, *et aliis recognitionibus*, even in pursuance of the King's writ, is confirmed by Statute; and by the 32 *Hen.* 8. *c.* 40. they, and as it may appear the Licenciates also, (under the name of Commons,) are discharged from keeping watch and ward, from serving the office of constable, (*a*) or any other office within the city of London and the suburbs, any order, custom or law to the contrary notwithstanding. (*b*)

The Corporation of the city of London, however, appear to have been unwilling to acquiesce in these exemptions, grounding themselves probably on their

(*a*) If however a gentleman of quality, or a physician, officer, &c. be chosen constable, where there are sufficient persons beside, and no special custom concerning it; it is said such person may be relieved in B. R. 2 *Hawk. P. C.* 100. *Jac. L. Dict tit.* Constable. As to Surgeons see *The King v. Pond. Comyns R.* 312: 2 *Kebl.* 578. 1 *Syd.* 431: 1 *Mod.* 22.

(*b*) But a Physician in the country, though a Fellow of the College, may be chosen, 2 *Keb.* 578; 1 *Mod*, 22.; 1 *Keb.* 439; 2 *Hawk.* 100; 1 *Sid.* 431; 2 *Keb.* 578; 2 *Hale* 100; *Com. Dig. tit.* Physician. For Surgeons see 18 *Geo.* 2. *c.* 15. §. 10; 2 *Hawk. Pl.* 101; 5 *Hen.* 8. *c.* 6; 1 *Burn.* 387. For Apothecaries 6 *Will.* 3. *c.* 4; 9 *Geo.* 1. *c.* 8. §. 1. See also the Charters. *Comyns* Rep. 312.

own Charters and Privileges, and on the reservation of their rights in the concluding clause of the Charter of the College. We find, therefore, that the members of the College were frequently harassed by being elected to parochial offices, and being called upon to find arms, and to keep watch and ward.

In 1588, "Being then a time of most imminent "and public danger, the Lord Mayor of *London* "and Court of Aldermen charged the College with "arms, whereupon they applied themselves to Queen "*Elizabeth* and her Council; upon which Secretary "*Walsingham* wrote a letter to the Lord Mayor and "Aldermen of London, that they should no more "trouble the College, but permit them to live quiet-"ly, and free from that charge. After this they met "with no further trouble or molestation till the "reign of King *James*; at which time the College "being charged with arms, Sir *William Paddy* plead-"ed their privilege before Sir *Thomas Middleton*, "Lord Mayor, and a full Court of Aldermen, and "Sir *Henry Montague*, Recorder." "The Recorder "then perusing every branch of the Statutes recited "by Sir *William Paddy*, with the reasons by him "urged; and opening every part thereof at large, "did conclude, that the Act of Parliament did extend "to give the College as much immunity as in any "sort to the Chirurgeons. Hereupon the Court de-"sired a list of the members of the College, which "was immediately given them, and an order entered "for a dispensation to the College from bearing of "arms; and also a precept was then awarded by "the Mayor and Court, to commit all other Phy-"sicians or Surgeons, refusing to bear or find arms, "who were not of the College allowed, or Chirur-"geons licensed according to form."

"About three years after this debate, King *James* "granted the College his Royal Charter, wherein he "confirms all former statutes and patents given them "by his royal progenitors, and therein granted, To "all and every Physician of the College to be wholly "and absolutely free from providing or bearing of "any armour or other munition, &c. any act or sta- "tute to the contrary notwithstanding."

Charles the Second also by his Charter granted the same exemptions in very full terms, and sent a letter to the Lord Mayor of London (for which see *Appendix*) commanding the observance of these privileges.

"Thus by the especial grace and favour of the "Kings and Queens of *England*, the College of Phy- "sicians have been freed from bearing and providing "arms: and though some particular member may "of late have been summoned upon that account by "the Lieutenancy, yet upon producing his Majesty's "patent and asserting his Sovereign's natural right "in dispensing with a Corporation of men from bear- "ing and providing arms, which was an inherent "prerogative in the Crown; and therefore an Act of "Parliament was made in 13 *Car.* 2. 6. positively "declaring, That the sole and supreme power, go- "vernment, command and disposition of all the "Militia, and of all forces by sea and land, &c. is, "and by the laws of *England* ever was, the un- "doubted right of his Majesty and his royal prede- "cessors, they were freed from any further trouble. "An instance of which we lately had in the case of "Dr. *Newell*, then candidate of the College of Phy- "sicians; who, anno 1680, was summoned to appear "before the Lieutenancy of *London* for not bearing "and providing arms. Upon which summons, attend- "ing with the Patent 15 *Car. Secundi Regis nunc*," The Lieutenancy on debate desired a copy of the

exempting part of the patent, that they might consult with their counsel. On the next committee-day they told him they were satisfied that the words of the Patent were sufficient to exempt the members of the College from bearing and providing arms, and desired that a list of them might be given in under the College Seal, which was accordingly done.

Sir *Francis Pemberton*, Sir *Edmund Saunders*, and Mr. *Holt*, lawyers of whose celebrity it is unnecessary to speak, being consulted on the same point, answered.

Sir *F. P.* I conceive his Majesty may, by his Patent, excuse the College from finding arms if he think fit.

Sir *E. S.* The Patent doth discharge the Physicians from bearing or providing of arms, notwithstanding the Militia Act.

Mr. *H.* I conceive by the Patent all the members of the College are exempted from being at any charge towards the Militia.

But in the case of *Sir Hans Sloane* against Lord *William Pawlett*, Lord Chief Justice *Parker* was of opinion, that the King by his prerogative could not dispense with an Act of Parliament which was made for the public good of the whole nation; "but admitting that he could exempt them (the Physicians) "from personal duties, yet it cannot be inferred from "thence, that he might exempt them from being contributory to others to perform those duties which "are required by an Act of Parliament, especially "where the subject has an interest that such duties "should be performed, or a loss if they should not; "and the better opinion seemed to be that the King "could not exempt in such cases. That in the principal case, the contribution to be made to the finding

" a man with arms to serve in THE MILITIA, is a " charge upon the lands, as well as on the persons of " the owners; and if this charter of exemption should " be good, it would encrease the charge on all the " lands of persons not exempted, which would be a " very great damage to such persons, because the " physicians who are exempted are a considerable " body of men in every county, for which reason it " would be very hard if the King had power to lessen " the tax imposed upon one man, and charge it on " another. Besides the King cannot exempt in any " case where the subject has an interest." (See 8 *Mod.* p. 11.) Therefore when it is intended to exempt Medical practitioners from the burthen of any Militia Act, it is necessary that they should be specifically mentioned.

OF ACTIONS BY MEDICAL PRACTITIONERS.

A Physician cannot maintain an action for his fees, for they are honorary, and not demandable of right; "and it is much more for the credit and rank of that "body, (the physicians) and perhaps for their benefit "also that they should be so considered; and I much "doubt, says Lord *Kenyon*, whether they themselves "would not altogether disclaim such a right, as "would place them upon a less respectable footing in "society, than that which they at present hold." *Chorley* against *Bolcot*, 4 T. R. 317, *see Appendix.* It was contended in this case, that there was no authority in the books for placing physicians and barristers fees (*a*) on the same footing; the regulation with regard to barristers being founded on grounds of public policy, as appears by a passage in Tacitus to which Mr. Justice *Blackstone* refers; in which passage it is taken for granted that Medici (*b*) were entitled to a remuneration, because their situation was dissimilar to that of advocates. (*c*)

But though a physician cannot recover his fees by process of law, yet *pro concilio impenso et impen-*

(*a*) In one point counsel have an advantage over physicians in respect of their fees; the attorney or solicitor who can recover his costs at law, is an intermediate agent and he is held professionally liable to the counsel for their payment; and if the attorney have received his costs from his client (including fees) it would appear that the counsel might recover in an action for money had and received to his use. It is to the honor of the profession that we should find no decided case on the subject.

(*b*) A barrister cannot maintain an action for his fees. Chan. Rep. 38.

(*c*) 3 Bl. Com. 28. Taciti An. l. 11.

dendo is a good and valuable consideration for an annuity; (9 Co. Rep. 50: 7 Co. Rep. 10. 28.) And this was formerly a very frequent mode of remuneration for professional services both in law and physic, though at the present day it does not frequently occur.

If a bond, bill, or note were given for medical attendance, the consideration would be good, though the original fees could not have been recovered. A distinction might we think be drawn between the fees of a physician and his travelling expenses, which are frequently considerable; but the case of *Chorley* and *Bolcot*, before cited, is against it.

If a medical practitioner passes himself off as a physician, (by no means an unfrequent practice in distant parts of the country) although he has no diploma, and no right to assume that character, he cannot maintain an action for his fees. *Lipscombe v. Holmes*, 2 *Camp.* 441. *see Appendix.* Though as a surgeon he might have recovered compensation: and even if he were no regular surgeon, the doctrine in *Gremare v. Le Clerc Bois Valor*, 2 *Camp.* 144. would entitle him to recover in an action of assumpsit. But query the authority of this case. (*a*)

If there be any promise, a physician may receive on a *quantum meruit*, *Shepherd* v. *Edwards*; *Hill* 11. *Jac.* 2. *Croke* 370. In this case the plaintiff declared that he being a professor of physic and surgery had cured the defendant of a fistula and he had judgment. All physicians may practise surgery; (32 *Hen.* 8.)

(*a*) See *Law* v. *Hodgson*, 2 *Camp.* 147. *Johnson and others* v. *Hudson*, 11 *East* 180, and cases cited there. The unprofessional reader must observe that there is considerable difference between the authority of cases determined at *Nisi Prius*, which are decided by a single Judge, and those argued in banco, which are resolved by all the four Justices of that Court in which the action may have been brought.

though surgeons may not encroach in physic ; therefore query whether in this case the plaintiff did not sue as a surgeon ; and the disease was one which in this day would clearly be classed as a surgical case. It was not so however in *Dale* against *Copping*, (*Bulst. part* 1. *p.* 39) when the promise of an infant to pay a certain sum to the defendant for curing him of the falling sickness was held binding, "for that "this shall be taken as a contract, and that to be for "a thing in the nature of necessity to be done for "him, and the same as necessary as if it had been a "promise by him made for his meat, drink, or ap-"parel, and in all such cases his promise is good and "shall bind him."

OF ACTIONS AGAINST MEDICAL PRACTITIONERS.

If a Physician, Surgeon, Apothecary, or other medical practitioner, undertakes the cure of any wound or disease, and by neglect or ignorance the party is not cured, or suffers materially in his health, such medical attendant is liable to damages in an action of trespass on the case: but the person must be a *common Surgeon* (*a*), or one who makes public profession of such business, as surgeon, apothecary, &c. for otherwise it was the plaintiff's own folly to trust to an unskilful person, unless such person *expressly* undertook the cure, and then the action may be maintained against him also. *See Bull. N. P. p. 73; 2 Esp. N. P. p.* 601.

"And it seems that any deviation from the esta-"blished mode of practice, shall be deemed sufficient "to charge the Surgeon, &c. in case of any injury "arising to the patient." *See Slater* v. *Baker and Stapleton. 2 Wils.* 359. which was a special action on the case against a Surgeon and an Apothecary, for unskilfully disuniting the callous of the plaintiff's leg after it was set, (*see Appendix, p.* 189) which it appears was done for the purpose of trying a new instrument. The Plaintiff recovered 500*l.* against the Defendants jointly, and the Chief Justice said he was well satisfied with the verdict. On a motion for a new trial, the judgment was affirmed by the whole Court.

(*a*) So also if a Farrier kills a horse or pricks him in shoeing; or if he refuse to shoe him whereby he is lamed, *Bull. N. P.* 73, and of trades generally, as, action against a Barber for barbing the plaintiff, *negligenter et inartificialiter*, 2 *Bulst.* 333; 1 *Danv. Ab.* 177; see also 2 *Bl. Com.* 163.

In *Seare* against *Prentice*, 8 *East. R.* 348. it was determined that this action lies against a Surgeon for gross ignorance and want of skill in his profession, as well as for negligence and carelessness, to the detriment of a patient; though if the evidence be of negligence only, which was properly left to the jury, and negatived by them; the Court will not grant a new trial, because the jury were directed that want of skill alone would not sustain the action. *See Appendix, p.* 194.

In the case of *Neale* v. *Pettigrew*, a Surgeon was held responsible in damages for the negligence and unskilfulness of his apprentice or servant (*a*).

Though the cited cases are surgical, there is no doubt that similar actions would be maintainable against Physicians or other medical practitioners; but as internal injuries are less demonstrable than external, there might be some difficulty in obtaining the necessary evidence. We shall treat in another place of the criminal responsibility of persons undertaking cures in cases where death ensues from their mal-practice.

(*a*) This case is recent, but we believe not reported. The plaintiff was a respectable artisan, and had been employed as engineer and brass-founder in a large manufactory in the city, and by his industry was enabled to earn about four guineas per week; the plaintiff's right arm was dislocated by a fall from a gig. Mr. *Pettigrew*, the defendant, was sent for, but being unable to attend from illness, his assistant undertook the case, but conducted it so unskilfully, that the plaintiff lost the use of his arm.—DAMAGES £800.

MIDWIFERY.

"In former times the necessity of Baptism to new "born infants was so rigorously taught, that for this "reason they allowed lay people and even women, "to baptize the declining child, where a priest could "not be immediately found; so fondly superstitious "in this matter, that in hard labours the head of the "infant was sometimes baptized before the whole "delivery; this office of baptizing in such cases of "necessity was commonly performed by the midwife; "and tis very probable, this gave first occasion to "midwives being licensed by the bishop, because "they were to be first examined by the bishop or his "delegated officer, whether they could repeat the form "of baptism which they were in haste to administer "upon such extraordinary occasions. But we thank "God our times are reformed in sense and in reli-"gion." (*Watson's Cler. Law, c.* 31, p. 318.) The concluding sentence appears to be somewhat ill placed, for a few lines before the reverend author says, "And "*Note*, that a child baptized with water in the name of "the Father and of the Son, and of the Holy Ghost, "is sufficiently baptized, although not baptized by a "lawful priest, as may be collected from the Rubrick; "and so it is if the child be baptized by other form, "yet the person baptizing not being a lawful priest "is punishable, like as a lawful priest baptizing by "other form than is set down by the Book of Common "Prayer is punishable;" and a few lines after, he says, that a Clergyman "ought not to bury the corps of "any person dying unbaptized:" surely if the baptism of a child by a lay person is good, and the body cannot have Christian Burial without it, there is

nothing senseless or irreligious, and we will venture to add nothing morally or legally wrong, in the performance of this provisional ceremony. If there were no other object than to satisfy the anxiety of the mother at a moment when the calmness of her feelings is vitally important, it ought not to be omitted whenever the danger of the child and the absence of a priest appear to render it necessary.

Burn says, "By several constitutions, the minister "was required frequently to instruct the people, in "the form of words to be used in such cases of "necessity," (2 *Burn's Ecc. Law*, p. 469,) and the oath administered by the bishops to licensed midwives, (*See Appx.* 160,) though it does not command, implies that baptism may be administered by other than a priest. "You shall not be privy, or consent that "any priest or *other* party shall in your absence or in "your company, or of your knowledge or sufferance "baptize any child by any mass, latin service or "prayers, than such as are appointed by the laws "of the Church of England:" here the prohibition is to the form not the person.

Whatever may have been the origin of the bishop's license, his jurisdiction does not appear to have been sanctioned by the law. "If there be a suit in the "Spiritual Court against a woman for exercising "the trade of a midwife without license of the "Ordinary, against the Canons, a prohibition lieth: "for this is not any spiritual function, of which they "have cognisance. *Buskin* and *Cripes*, Tr. 9, Ch. "B R and a prohibition was granted accordingly. (2 *Roll Abr.* 286. 2 *Burn, Ecc. Law, Tit. Midwife.*)

In the reign of Charles the first, a Doctor of Physic attempted a project to procure the sole and absolute power, either to license or approve of all the mid-

wives practising in and about *London*, before their admittance; they presented a petition to the President and College of Physicians, (for which see Goodall's Pro. 463,) in which it appears that a petition on the same subject having been presented to the King, his Majesty referred the same to the Lord Archbishop of Canterbury and Bishop of London, in whose jurisdictions and by whose authority, it is stated, that they had always been licensed; the object of the petition to the College, was to obtain their certificate of the competent skill of the petitioners, for which purpose they alleged that other practisers in midwifery had been examined upon the like occasion, by command from King James; the physicians by their answer, (*for which see Appendix*) discouraged the scheme of the would-be licencer, and the matter thereupon appears to have been dropped.

We have before noticed, that there is some probability that both the College of Physicians and the College of Surgeons will decline all future interference with this branch; if so, it will be necessary that some new authority should be instituted for the purpose of examining and licensing candidates for practice; the duty to be performed is by far too dangerous and delicate to be left to the hands of any who would assume it; yet such is at present the case, and not without fatal examples of the errors and imperfections of our lego-medical system.

We do not of course include in this censure, the private Institutions for the instruction of midwives, in which the want of a public provision is endeavoured to be compensated; but the operation of such societies must be of necessity very limited and utterly inadequate, not only to the demands of the empire, but to the magnitude of the metropolis.

OF THE PRESERVATION OF PUBLIC HEALTH.

There is not in England, as in most countries of the continent, a separate code or system of laws for the preservation of the public health; actual nuisances, of which we shall treat under a separate head, are provided against by liability to indictment or action at the information or suit of the parties immediately interested; but except in the enforcement of the Quarantine laws for the prevention of foreign infection, the executive government takes little or no part in securing the bodily health of its subjects. The habits of order and cleanliness, for which the inhabitants of our island are celebrated, and the general salubrity of our climate, may have rendered such care less necessary; while our spirit of liberty and independence might have resisted the encroachments on domestic privacy, and the perpetual intrusion of local authorities, to which our neighbours are subjected. Except in extreme cases we are far from wishing any change; but as there are situations and circumstances, in populous towns, among the lowest order of the people, and in times of contagious or epidemic sickness, in which absolute apathy may be attended with danger, we may be allowed to hint that some prospective enactment would be more politic, than to be obliged to legislate for the evil when its mischiefs had been accomplished. This has been already done as respects Ireland by the statute 59th *Geo. 3. c.* 41. (*see Appendix*,) by which it is enacted that Officers of Health should be appointed annually, at vestries of the inhabitants in every city and large town, where the Lord Lieutenant or chief Governor

shall think fit to direct. (*a*) Something of this kind might be advantageously extended to the whole of the United Kingdom.

In former times, however, when from the comparatively uncultivated state of the people, contagious diseases were more common, there were several laws and regulations on this head, which have now fallen into disuse. Many cities have still some relics of their Lazar-house, situated at some distance without the walls; (*b*) and there was also an ancient writ *De Leproso amovendo*, to remove a leper or lazar who thrust himself into the company of his neighbours in any parish, either in the church, or at other public meetings, to their annoyance. *Reg. Orig.* 237. By the 1st *James*, c. 31. (now expired) it was made felony if any one having a Plague sore running upon him goes abroad, 1 *Hale, P. C.* 432. (*c*) And to this day it is an indictable offence for any person to pass through the streets, or cause others to pass through the streets, even for medical advice, while they have the Smallpox upon them. (*d*) Previous to the im-

(*a*) For other provisions see the act itself. See also two reports from the Select Committee of the House of Commons, on the state of disease and condition of the labouring poor in Ireland. May 17 and June 7, 1819.

(*b*) There is among the *Sloane* manuscripts in the British Museum, a complaint or remonstrance that the buildings had been appropriated to other purposes than those intended by their pious and benevolent founder.

(*c*) For the regulations in the time of the Plague during the reign of *Elizabeth*, see 2 *Stowe b.* 5. *p.* 450.

(*d*) The case of the *King v. Taunton*, in the King's Bench, was to this effect. Mr. *Taunton* vaccinated his own children, was one of the first subscribers to the London Vaccine Institution, and has been constantly on the Board of Managers of that charity. At the same time he felt it his duty to inoculate such for the Smallpox, who through prejudice, or otherwise, refused vaccination. Many of the poor who applied for

portant discovery of Vaccination, this law would have been attended with very considerable hardship; as it precluded the patient from the best remedy for the disorder—exposure to fresh air; yet there can be no doubt that in this as in all other cases, individual interest must yield to general policy. Had the rule been more carefully attended to, many of the pests to which human nature is subject, might have been checked or even extirpated in the commencement of their progress.

There is one disorder, to check the propagation of which has been singularly neglected, under the curious pretence that any regulation would be an

gratuitous advice, applied also for inoculation for the Cowpox, and some for the Smallpox.

'On the 19th June, Mr. *Taunton* was arrested on the Lord Chief Justice's warrant. He gave bail, and directed his attorneys to defend the cause, which was to have been tried on Friday, December 8th, in the Court of King's Bench, where Mr. *Taunton* attended with his witnesses. Sir *William Garrow*, the Attorney General, and counsel for the plaintiff, stated to the Court, that he should not proceed in the present case, as he learnt that the defendant had given notice, with every inoculation, not to expose their children while the disease was out.

"God forbid," said he, "that those who have the Smallpox should not be attended in their own houses by any person they choose; but they must not be carried about the street to the destruction of others."

Mr. *Justice Bayley.*—"I hope it is sufficiently notorious, that the causing persons to pass through the streets, who may have that disorder upon them, although they are going for medical advice to some person in whom they may have confidence, is an indictable offence; and if that person, instead of attending them at their own houses, as he might do, chooses to direct that they shall, from time to time, be brought, or come to him, there is no question that he is liable to an indictment."

Mr. *Attorney General.*—"The few sentences that your lordship has pronounced now, are of the last importance to the community."

Mr. *Justice Bayley.*—"Mr. *Taunton* should intimate that he is ready to attend those persons at their own houses."

Mr. *Pollock.*—"I understand that is part of the notice, that he is willing to attend such patients at their own houses."

encouragement to immorality; we cannot assent to the validity of this objection, and think that we should find little difficulty in refuting it. But the disease is undoubtedly on the decline both as to its frequency and its virulence. (*a*) The superior mode of medical treatment, by which many cases are arrested in the earliest stage, may have tended greatly to this effect; but we are inclined to attach yet greater importance to a change of habit in the upper and middle classes of society. The mode of life handed down to us by the poets, dramatists, novelists, and essayists from *Charles* to *George* the second, unhappily confirmed by the criminal records of the same period, has no

(*a*) The rise, progress, decline, and cessation, of particular diseases, forms a curious and useful study to the medical jurist: since the laws and habits of mankind will thereby be found to possess more considerable influence on the health and physical strength of a people, than is generally supposed. See *Observations on the Increase and Decrease of different Diseases, by W. Heberden, jun. M.D. F.R.S. London* 1801. The gradual decline of the Dysentery in this country is a remarkable proof of the benefits which have ensued from our improvements with respect to diet, cleanliness, and ventilation.

The long list of chronic diseases with which our nosology abounds is totally unknown to barbarous nations, and seem to be the natural consequences of arts and civilization; as these again shoot up into luxury and intemperance, their effects may well be expected to become proportionally more conspicuous. Dr. *Rush* of Philadelphia has reported, with respect to the uncultivated nations of North America, that Fevers, Inflammations, and Dysenteries make up the sum of their complaints, and he remarks, in particular, that after much inquiry, he had not been able to find a single instance of madness, melancholy, or fatuity among them. *Medical Enquiries and Observations by B. M. Rush, vol.* I. *p.* 25.) In a subsequent part of his work, the same author, speaking of the pulmonary consumption, declares it to be unknown among the Indians of North America (*vol.* I. *p.* 159). Mr. *Park*, in his account of the interior of Africa, says, that notwithstanding longevity is uncommon among the Negroes, their diseases appear to be but few; fever and fluxes being the most common, and the most fatal.

existence in modern manners: drunkenness is no longer a fashionable vice; the tavern parties, which even *Addison* did not blush to describe, no longer disgrace us. From these social improvements, and from increased habits of cleanliness, we may deduce the milder form and more unfrequent occurrence of the disease, which poisons human life at its source. Still we feel some astonishment that the change has not been forwarded by a measure of the police; for though a Parisian system might savour somewhat too much of our own ancient abuses, (*a*) yet it would neither be difficult or immoral for the magistrates, when they occasionally clear the streets for the night, to order the detention of those whose liberty might, on surgical examination, prove dangerous to the unwary; *obsta principiis* is as good a maxim in law as in physic. One Surgeon attached to each police office, for this, and other evident purposes, would be materially useful and not considerably expensive.

We have observed in another place (*b*) on the attention necessary to be directed to prison discipline, as it respects the health of criminal or unfortunate prisoners; but the subject is so much before the public on this and other points, that we do not think it necessary to enlarge upon it here. It is not so, however, in other cases to which legislative attention might be advantageously directed. Sir *Robert Peel*'s Bill for regulating the working hours of children in the cotton factories, might in some of its enactments

(*a*) The curious reader will not be at a loss to trace the ancient patronage and jurisdiction of the Bishop or Winchester; suppressed among other ecclesiastical establishments, by *Henry* the 8th:

(*b*) *See part* 3. No sufficient provision is yet made for the speedy removal of prisoners from infected jails; the case hereafter quoted shows that the Crown has an authority on this subject.

be safely extended to many other branches of trade, more especially when contagious diseases are found to exist in large collections of people confined to a very small space. This observation applies also to infectious diseases breaking out in schools; at present the discretion of the master is the only security to the public: in the higher class we have no doubt that this discretion is well exercised; but there are others where, gain being the only object, the speculator will rather risk the lives of the unfortunate children committed to his charge, than the chance of their being permanently removed from his precarious protection. (*b*)

We are well aware that any adequate remedy for these evils would require the most serious attention of the most experienced ability; but because the task is difficult, we do not think it impracticable; and where human life, in its most interesting and useful forms is at stake, we are assured that labour, however thankless in its outset, will ultimately meet its reward in the approval of society.

Having thus ventured to suggest some measures which seem calculated to secure and promote the public health, we may be allowed to glance at the impolicy of any tax which has a tendency to deprive the lower orders of those articles which are essential to it; the salt duties immediately suggest themselves as a lamentable instance of such impolicy: salt is to the poor an indispensable part of their diet; it is essential to their bodily health, to the preser-

(*b*) During the progress of this work we have seen a fatal instance of a child sacrificed to the dirty and penurious system of one of the *very* cheap schools of the north of England. The author was called in to his assistance on the child's arrival in town, but he expired a few hours afterwards.

vation or composition of bread, butter, cheese, meat, fish, and almost every article of their food, and its utility is always greater in proportion to the scantiness, and nutritive deficiency of their diet. (*a*)

The importance of cleanliness in cities, and of purity in the waters by which they are supplied, will more properly fall under consideration in another division of our subject; but we may here generally observe, that no circumstance contributes in a greater degree to the public health than an attention to this branch of medical jurisprudence. The deleterious influence of stagnant waters is too apparent to admit controversy, in which are to be included moats, where the water has no motion, and meadows which are occasionally overflowed; it has accordingly been the policy of every enlightened country to provide adequate resources for its drainage, and those liberal individuals who have encouraged the plans for its accomplishment have ever been distinguished by the gratitude of the people. It has been conjectured, and not without probability, that the patriotism of *Marcus Curtius* is thus handed down to us in a figurative allusion, and that he probably filled up, at his own cost, some stagnant pools which affected the health of his fellow citizens. *Empedocles*, a disciple of *Pythagoras*, delivered the Salentines from the dangerous exhalations with which they were infested, by conducting two neighbouring rivers through their marshes, by which the stagnant waters were carried off; the air was therefore no longer infected, and the diseases which had flowed from this source immediately subsided. In ancient Rome, the physical evils which have since so materially contributed to

(*a*) Case of the Salt Duties with proofs and illustrations, by *Sir Thomas Bernard*, Bart. London 1817.

deprive it of its former salubrity and splendour, were obviated by magnificent aqueducts.

The slaughtering of cattle is another very important object in relation to the public health of a great city, and we cannot but wish that some police regulations were established that might mitigate the serious evils so often experienced from this circumstance, in most of the large towns of the British empire.

There still remains to be noticed one practice connected with the public health, that requires some animadversion from the medical jurist—THE BURIAL OF THE DEAD IN THE MIDST OF POPULOUS TOWNS AND CITIES.—It is certainly extraordinary that a country which has long abjured the errors of the church of Rome, should still retain one of its most absurd supersititions, yet such is the fact in England, as it respects the Burial of the Dead in churches, and church-yards, and in cemeteries, situated in the very heart of our most populous cities. (*a*)

(*a*) In examining the history of Burial in remote ages, we shall find that both among the Jews and Heathens, *the place of interment was usually without the city.* Such was the case with the Athenians, the Smyrnæans, the Sicyonians, the Corinthians, and the Syracusans. The examples of *Numa* and *Servius Tullus* prove, that the Romans deposited their dead *without* the city before the introduction of the twelve tables, which prohibited *burning* as well as *burial* within its precincts. The *Lacedæmonians* afford an exception to this general custom; it had been a notion universally prevalent, that the touch of a dead body conveyed pollution; and *Lycurgus*, the legislator of Sparta, being anxious to remove the prejudice, introduced the custom of burial within the city. Among the primitive Christians, burying in cities and churches was not allowed for several centuries, and *Theodosius*, after the triumph and establishment of Christianity; renewed the prohibition upon the old and reasonable ground that graves *within* the city were detrimental to the health of the living, and it was ordered that any person who should disobey this law was to forfeit the third part of his patrimony; and that the undertaker who directed a funeral contrary to the prohibition was to be

If the health of the people be a primary object of legislation, there is no point which in the present advanced state of population calls more imperiously for its interference; the cemeteries of the metropolis are so crowded (*a*) that it becomes more difficult to

fined forty pounds in gold. The learned *Bingham*, in his *Antiquities of the Church*, has traced the gradual introduction of the odious custom of burying in churches. It was from the idea of the protection which would be afforded by consecrated ground, baptized bells, and relics, that bodies were first interred in the vicinity of the church: to this superstition we may ascribe the origin of church-yards, which took place in the eighth century. The reason alleged by *Gregory* the Great for burying in churches, or in places adjoining to them, was that their relations and friends, remembering those whose sepulchres they beheld, might thereby be led to offer up prayers for them; and this reason was afterwards transferred into the body of the canon law. The practice thus introduced into the Romish church by *Gregory*, was brought over here by *Cuthbert*, Archbishop of Canterbury, about the year 750: and the practice of erecting vaults in chancels and under the altars was begun by *Lanfranc*, Archbishop of Canterbury, when he had rebuilt the cathedral about 1075. Since this period many enactments have been made in different countries to abolish so foul a custom.

(*a*) It is notorious that there are many church-yards in which the soil has been raised several feet above the level of the adjoining street, by the accumulated remains of mortality; and there are others, in which the ground is actually probed with a borer before a grave is opened. The Commissioners for the improvements in Westminster, reported to Parliament in 1814, that St. Margaret's church-yard could not consistently with the health of the neigbourhood be used much longer as a burial ground, "*for that it was with the greatest difficulty a vacant place could at any time be found for strangers; that the family graves generally would not admit of more than one interment, and that many of them were then too full for the reception of any member of the family to which they belonged.*"

Many examples might be adduced of overloaded church-yards and burial grounds, which have become if not serious nuisances to the health of their neighbourhood, at least highly offensive to comfort and decency. There is one instance in our sister kingdom so flagrant, that we cannot omit noticing it, in the hope that attention may be drawn to this and similar inconveniencies. There is a burial ground at the back of Kilmainham hospital (and consequently under the immediate view

find room for the dead than the living, and yet free as we boast ourselves to be from the prejudices and superstitions of our ancestors, we question whether there is any point upon which more popular clamour would be raised than that of changing the system of burial. It is difficult, in the first place, to overcome those feelings which originate in a principle amiable and useful in itself, however mistaken it may be in its practical applications. Nature appears to have implanted in all mankind a sentiment of veneration for the mortal remains of those whom living we have loved or respected; every nation, whether civilized or barbarous, has accordingly invented and practised some ceremony, (*a*) generally of a religious character,

of the Commander and Adjutant-General of the Forces), so disproportioned to the number interred in it, that the older coffins are frequently broken and the undecomposed limbs constantly thrown on the surface, to make room for new tenants of this human soil; yet after heavy showers, the earth being washed away, the lids of coffins may be plainly discerned, so slight is the covering which can be afforded them. Immediately below the rising ground on which this cemetry is situated are the Island Bridge Barracks for the Artillery, the wells of which must of necessity be filled with the filtrations from the putrid mass above them. One at least of the principal Tanks at Gibraltar was similarly situated. The present Lieutenant Governor, Sir George *Don*, among the numerous improvements in the regulation of cleanliness and ventilation which he has introduced on the rock, has converted the burial ground into a public garden; to this, among his other measures, the garrison may owe some future exemptions from the diseases which have so often afflicted them.

(*a*) We learn from *Cicero* (*De Leg.* ii. 22), that of the various modes of disposing of the dead body, *inhumation* was the most ancient: *burning* and inclosing the remains in urns, were perhaps never found expedient until national animosities had given rise to inhuman treatment of the dead. The Egyptians, as they held it unlawful to expose the bodies of the dead to animals, embalmed them, lest after interment they might become the prey of worms (*Herod. Thalia*, xvi.); and their mummies remain to this day a lasting satire upon that folly which "contends against corrnption, and will not allow the grave its victory." The cus-

in the final disposal of the human corpse; it is however the duty of the state to guard the living from those evils to which an ill applied respect for the dead may be likely to subject them.

Although we are disposed to admit with *Diemerbroeck* (*a*) and Dr. *Bancroft*, (*b*) that the effluvia which issue from putrefying human bodies are not capable of generating the specific contagious matter of Plague, Typhus, or any true pestilential fever, yet, but little reflection is necessary to lead any reasoning mind to the conclusion, that in the decomposition of the human body various noxious principles are developed highly injurious to human life. Dr. *Bancroft*, in order to establish his position respecting the non-pestilential nature of these effluvia, relates two instances of extensive exhumations, which he says furnish facts on so large a scale as completely, in his opinion, to decide the question. The first relates to those made in the church-yard of *St. Eloi*, at Dunkirk, in the year 1783; and the other to those made three years afterwards, in the famous cemetrie of the *Saint Innocens*, at Paris. As the operations and results were similar in both instances, it will be sufficient if we describe only the latter. The church-yard of the Saint Innocens, situated in one of the most populous quarters

tom of *burning* the dead is of higher antiquity than we may have at first been led to suppose; *Saul* was burnt at Jabesh, and his bones afterwards buried; and *Asa* was burnt in the bed which he had made for himself, filled with sweet odours, and divers kinds of spices: but this custom must of necessity have been limited by the quantity of fuel required for the purpose. It may be worthy notice, that according to Mr. *Ward*, the Missionary, who had opportunities of ascertaining the fact in India, the smallest quantity of wood which is sufficient to consume a human body is about three hundred weight.

(*a*) *Tractatus de Peste*, *Lib.* i. *cap.* viii. *p.* 41.

(*b*) *An Essay on the Disease called* YELLOW FEVER. London 1811.

of the city of Paris, had been made the depository of so many bodies, that, although its area enclosed near two acres of ground, yet the soil had been raised by them eight or ten feet higher than the level of the adjoining streets: and upon the most moderate calculation, considerably more than six hundred thousand bodies had been buried in it, during the last six centuries: previous to which date, it was already a very ancient burial ground;* numerous complaints having been made concerning the offensive smells which arose from this spot, and had penetrated into the houses, and the deleterious effects which such emanations produced, having been described in a memoir read before the Royal Academy of Sciences† in 1783, by *M. Cadet de Vaux*, who held the useful office of *Inspecteur Général des objects de Salubrité*, the Council of State decreed in 1785 that so much of the superstratum should be removed as would reduce the surface to the level of the streets. This work was accordingly undertaken in 1786, under the superintendance of *M. Thouret*, a Physician of eminence in Paris,‡ and in two years he accomplished it. It does not appear that any epidemic evils were experienced from these extensive exhumations, but it must be remembered that the great mass of bodies had been converted into a harmless and inoffensive substance resembling spermaceti, to which the name of *Adipocire*§ has been given; had this change not occurred,

* In less than 30 years, more than 90,000 corpses had been deposited here by the last grave digger!

† See *Mémoires de la Societe Royale de Médecine, tom* viii *p.* 242; also *Annales de Chimie*, tom v p. 158.

‡ *Journal de Physique*, 1791 p. 253

§ See *Annales de Chimie*, vol. iii, p. 120---v, 154---vii, 146---viii, 17; also *Phil. Trans.* vol. lxxxiv. p. 169.

it is more than probable that worse consequences would have been experienced from this horrible accumulation: sufficient instances however occurred to prove the dangerous tendency of the mephitic vapours (*a*) which were emitted; grave-diggers were thrown down suddenly, and deprived of sense and motion, upon breaking open, by their spades, the abdominal viscera; these vapours also, in a more diffused state, produced nausea, loss of appetite, and in the course of time, paleness of countenance, debility, tremors, &c. If farther evidence be required upon this subject, we have only to direct the reader's attention to the effects occasioned by opening the graves in St. Dennis, and to which no allusion is made by *Dr. Bancroft*: the National Convention in the year 1793, in the true spirit of revolutionary ferocity, passed a decree upon the motion of *Barrère*, that the monuments of the Kings in this, as well as in all other places throughout France, should be destroyed. In carrying this decree into effect, the bodies of many of the latter Bourbons were found in a state of decomposition, and when the coffins were opened they are said to have emitted a thick black vapour, which, although vinegar and gunpowder were burnt to prevent ill consequences, affected the wretches employed in this inhuman work with fevers and diarrhæas: so again when the ground of the church of St. Benoit was dug up a few years ago, a nauseous vapour was emitted, and several of the neighbours were affected by it. (*b*)

(*a*) The gases produced by putrefaction, are Carbonic acid, Carburetted Hydrogen, Sulphuretted and Phosphuretted Hydrogen, and Ammonia; the most deleterious of which are the compound gases of Hydrogen.

(*b*) *Chaptal's Elem. of Chem.* vol. iii.

We are nevertheless far from believing that such cadaverous impurities, however unwholesome, are capable of generating the specific contagions of Typhus, &c.; nor are we even inclined to assent to that general opinion which supposes that putrid emanations from the bodies of persons who have died of a pestilential disorder are capable of re-exciting the disease, and we are fortified in this conclusion by the powerful testimony of *Mr. Howard.* (*a*) We ought not, however, to omit to state, that instances are on record, where the small-pox has suddenly appeared in a village, after opening the grave of a person who had a few months before fell a sacrifice to that disorder.

From the experiments and observations which have been made with respect to the decomposition of animal bodies that are interred in burying-grounds, it appears that they are, in such situations, subjected to very different laws of decomposition, from those which take place in bodies exposed to the open air. In the former case no danger can attend the operation provided the body be buried at a sufficient depth, and that the grave be not opened before its entire and complete decomposition. The depth of the grave ought to be such that the external air cannot penetrate it; that the juices with which the earth is impregnated may be conveyed to its surface, and that the exhalations, vapours, or gases, which are developed or formed by decomposition, should not be capable of forcing the earthy covering which detains them. The nature of the earth in which the grave is dug, influences all its effects. If the stratum which covers the body be argillaceous, the depth of the

(*a*) *On Lazarettos*, p. 25.

grave may be less, as this earth affords with difficulty a passage to any gas or vapour; but, as a general rule it may be admitted, that bodies should be buried at the depth of five feet, to prevent any unpleasant consequences. It is also important to remember that the decomposition of the soft parts, according to *Mr. Petit*, is not terminated until the expiration of three years, in graves of four feet deep; or four years when their depth is six feet. This term, of course, is stated as a medium; it must necessarily vary according to the nature of the soil, and the constitution of the subjects buried in it.

A knowledge of these facts ought to lead to a more rational system of interment. We can scarcely expect to see the fulfilment of the wish expressed by Evelyn in his *Sylva*, the establishment of a *Necropolis* without the walls; but much may be effected by judicious regulations; and the law will uphold any parochial officer in the conscientious discharge of the requisite duties; in certain cases it invests him with a considerable latitude of discretion; thus when a body is brought to be buried "it seemeth to be discretionary in the minister whether the corpse shall be carried into the church or not, and there may be good reason for this, especially in cases of infection." (*a*) A curious controversy has lately taken place upon the introduction of iron coffins, and chemists have differed widely upon the subject of their relative durability, when compared with those of wood. Sir *William Scott* (now Lord *Stowell*) decided, and we think very justly, that under ordinary circumstances the former appear less perishable, and

(*a*) See *Burns's Ecclesiastical Law. Tit. Burial. Watson's Clergyman's Law—Gibson—Lindwood.*

therefore when admitted into burying-grounds, that the parties are to be held liable to extraordinary fees.

Burial must not be delayed or denied, (*Lindwood* 278) nor hindered for debt, (*a*) (*Burn Ec. L.* 238) nor disturbed for purposes of dissection (*King v. Lynn, vide Post.*) Formerly by 30 C. 2, st. 1, c. 3, all bodies were directed to be buried in woollen, under the penalty of £10; this enactment, which was made with the idea of encouraging the woollen trade, is now repealed.

In relation to their effects upon the public health, the arrangement and cleansing of privies deserve some notice in this place. It has been long admitted that the effluvia which issue from these receptacles of human ordure are highly deleterious, and have been known to occasion a species of ophthalmia, diarrhæa, and dysentery, while in a more concentrated form these emanations have proved suddenly fatal, (*b*) by

(*b*) A popular fallacy has long existed upon this point, and it certainly receives a sanction from the usages of antiquity. At Athens those who died in debt had no right to human burial, until satisfaction was made; their bodies belonged to their creditors, whence it is said that *Cimon* had no other method to redeem the body of his father *Miltiades*, but by taking his debts and fetters upon himself.—*Potter's Antiq.*

(*b*) The peculiar gas to which this destructive quality is owing, is generally *Sulphuretted Hydrogen*, sometimes existing in combination with Ammonia (*Hydro-Sulphuret of Ammonia*). *M. Dupuytren* has also shewn that the *Plomb* is sometimes occasioned by *Nitrogen gas*. *Hallé* in his work entitled "*Recherches sur le Mephitisme des Fosses d' Aisances*" has proposed various methods for securing the *nightmen* from the dreadful effects of this gas, as by *ventilation* and *fumigation*. *M. Dupuytren*, however, has satisfactorily proved that Chlorine, by decomposing it, is its true antidote, by which *Hydro-Choloric* acid (*Muriatic*,) is produced, and *Sulphur* deposited.

In some cases the Sulphuretted Hydrogen has accumulated to such an extent, that explosions have occurred in privies on the introduction of a light. We have heard that dreadful ones have happened in the *Fosses*

producing an affection named by the French Nosologists (*a*) the *Plomb*, or the Asphyxia of privies. *M. Dupuytren* has given us many particulars respecting this affection; sometimes the patients are strongly asphyxied, and death takes place in a very short period; at others, the symptoms are less intense, and if the patients be carried into the open air, after a short interval, they make deep inspirations, and the breathing is gradually restored, although it continues laborious; the motion of the heart becomes perceptible, nevertheless the pulse is weak and small; the digestive and loco-motive apparatus have lost their contractile force; the functions of the brain are suspended; and if the patient finally recovers, he is a long time in re-establishing his strength. An emetic appears to be the remedy upon which the *nightmen* rely for relief.

The above observations are sufficient to shew the propriety of placing these establishments under police regulations, especially where the deleterious influence of their emanations are more decidedly remarkable, as in hospitals, prisons, and barracks. The

d' Aisances in the Rue St. Antoine, and in those of Gross Caillou, and Petit Bourbon; and very lately in that of the House of Correction at Clermont-oise, in which many lives were lost. A similar accident has happened in London; we copy the following paragraph from the *Morning Advertiser of Friday Feb. 5*, 1819.---"*Singular Explosion*,---A few evenings ago, at the Two Brewers Tavern, Redcross-street, Southwark, a person took a candle into the privy, and laid it upon the seat, the air confined underneath caught fire from the candle, and immediately exploded, the seat was forced up, and the person was burned considerably, but not dangerously."

(*a*) The writings of Portal, Gériel, Laborie, Parmentier, Alibert, Dupuytren, Cadet de Vaux, and Hallé, contain ample illustrations of this subject. The reader is also particularly directed to an Essay by Dr. Gerand, entitled "*Essai sur la suppression des Fosses d' Aisances. Paris*, 1786." See also *Dictionnaire de Police*---Art. "*Latrine.*"

governments of different countries have sought to prevent the evil, by various laws, edicts, and ordinances. (*a*)

In this country, we apprehend their supervision belongs to the very ancient and extensive jurisdiction of the Commissioners of Sewers, (*b*) who although not engaged like the Œdiles of ancient Rome, in superintending magnificent aqueducts, are occupied in directing the far more stupendous and wonderful

(*a*) In the year 1809 a decree was passed in Paris, containing numerous rules to be observed in the future construction of privies, and which fixed upon the householder a very heavy expense. In 1819 the French King issued a Royal Ordinance relative to this subject; it contains thirty-four clauses or articles, thirty of which revive *in their full strictness*, all the statutes by which housekeepers are compelled to undertake most expensive and troublesome building, or repairs of privies. To relieve them, however, from vexatious costs, the 31st article was framed upon the recommendation of the Privy Council, and which liberates those from the obligation, who shall substitute their old privies by a new apparatus invented by *M. Cazeneuve*, entitled *Messrs. Fauche-Borel's Patent Moveable Inodorous Conveniences*, of whose advantages almost all the learned Societies of Europe have reported most favourably. We have noticed this decree in order to shew our reader what a degree of importance the French Government attaches to the subject. And upon this occasion it is impossible to withhold the expression of those feelings of national pride and exultation which the contemplation of this subject must afford us; we have in our metropolis no less than 200,000 privies, of which 10,000 only are water closets. In Paris the number does not exceed 70,000, and yet with all the cumbrous enactments which that government has passed for their regulation, how far inferior they are in cleanliness, and how far greater are the effects of their effluvia, when compared with similar establishments in our city. The truth is, that the most elaborate system of medical police will never be so effective as the spirit of cleanliness which is so characteristic of this great and free people; and in this truth, so forcibly illustrated by the subject under discussion, we are to seek for the real explanation of that fact which has been so frequently commented upon by medical writers—THE APPARENT INDIFFERENCE OF OUR GOVERNMENT TO THE SUBJECT OF PUBLIC HEALTH.

(*b*) See *Calis on Sewers.*

works which extend beneath the foundations of our mighty city, and dispense to its inhabitants the essential requisites for comfort, cleanliness, and health.

OF QUARANTINE, LAZARETTOS, AND OTHER ESTABLISHMENTS OF PLAGUE POLICE.

The histories of different ages and countries furnish numerous records of the occasional prevalence of certain diseases, generally of the febrile class, which at one period have occasioned the most destructive mortality, while at others, they have assumed so mild a form as to have affected only few, and to have destroyed scarcely any of the population. Such diseases, when they attack a great number of individuals about the same time, or in rapid succession, are very properly designated by the term EPIDEMIC (from ἐπὶ *upon* and δημος *the people*) and whenever their course is attended with considerable mortality, they are moreover said to be *Pestilential.* No fact in the history of medicine has been the subject of more general and anxious enquiry, or of more keen controversy, than that of the origin of Epidemic diseases, and of the immediate cause of their propagation and decline; and although the field has been industriously explored by the most able and experienced philosophers and physicians, the subject still remains involved in considerable obscurity; indeed, such different and even opposite views have been entertained upon the question, that writers have not even agreed upon the exact import of the terms employed in their descriptions, but each author appears to have acknowledged a latitude of acceptation according to the particular theory which he has been anxious to support. The term EPIDEMIC ought in strictness to signify a disease which, as we have before stated, attacks numbers at or nearly the same time, without any reference

to the cause from which it may have originated, or be diffused; but this construction has been considerably limited by many writers, who have applied it, exclusively, to denote those maladies which derive their origin solely from a noxious state of the atmosphere, and which are incapable of being communicated from one person to another; distinguishing diseases of the latter kind by the epithet *Contagious.* (*a*)

A similar ambiguity involves the terms CONTAGION and INFECTION, which are regarded by many authors as synonymous and convertible expressions, signifying the matter or medium by which certain diseases are communicated from one individual to another; while others, on the contrary, confine the term *Contagion*, as its etymology would suggest (*con* and *tango*) to the communication of those diseases, which can only be transferred by actual contact of the sick, or of the palpable matter from their bodies; and apply the term INFECTION to the communication of those other diseases which spread by means of invisible effluvia. Now we would observe in the first place, that according to the most correct rules of philology, the import of words is not necessarily to be deduced from their derivation, but frequently to be either assumed conventionally according to a definition, or to be adhered to in the sense affixed to it by established usage; in the next place, the distinction which the etymologist would thus establish between the terms *Contagion* and *Infection* is not accurate, for in every case of infection, there is an actual contact of mor-

(*a*) Dr. Ratcliffe being asked the difference between a contagious and epidemic disease, attempted to explain it by the following illustration: "*If you and I are exposed to the rain we shall both get wet, but it does not follow that we shall wet one another.*"

bific matter, whether visible or not, and some diseases, as the *Small-pox*, are communicated both by palpable matter and by imperceptible effluvia. (*a*) Our best writers (*b*) have therefore agreed to consider the word *Contagion* as expressing the morbid poison, or the means of transferring a disease, and *Infection* as denoting the operation of the poison, or the act of communication of the disease. Dr. *Hancock* (*c*) very justly observes that in almost all the best Latin writers on medicine, *Contagium*, and *Contagio* are the only words used to denote the effluvia, or emanations arising in disease, which are capable of infecting the sound, whether *mediately* by the air, or by infected goods called *Fomites*, or *immediately* by the touch: to limit contagion therefore to the propagation of disease by contact only, would be to disallow the more comprehensive use of the term in our best authors.

Those diseases which occur among the inhabitants of a particular region or place, are said to be ENDEMIC, or ENDEMIAL; thus *Intermittent*, and *Remittent* fevers, which are occasioned by the miasmata of marshy grounds are *Endemic* in low countries: the *Goitre*, or bronchocele, connected with that peculiar intellectual imbecility which characterises the CRETIN, is *Endemic* among the Alps; in these instances, some *local* cause obviously exists which produces the disease in the respective districts: the disease therefore belongs to the districts, and affects those that reside there, but extends no farther; and hence the distinc-

(*a*) See *Rees*'s Cyclopædia, article *Contagion*.

(*b*) Dr. *Wilson Phillip*'s Treatise on Febrile Diseases, vol. i. p. 433.

(*c*) Researches into the Laws and Phenomena of Pestilence. London, 1821.

tion between *Endemic* and *Epidemic* diseases is obvious and important.

Having thus determined the value and signification of the terms, as used by different authors, and which must necessarily be introduced on the present occasion, we come to the consideration of that momentous question, which has excited so keen an interest in the political, mercantile, and medical circles of the present age, and which has been farther heightened by the late reference of the subject to the Legislature—WHETHER EPIDEMICAL DISEASES BE EVER PROPAGATED BY CONTAGION?——It is impossible to imagine a question of deeper importance; it not only involves the general safety of mankind, but is intimately connected with the commercial welfare of nations; for, as it has been truly observed, if these diseases be not contagious, Quarantine laws are absurd, and commerce needlessly burthened: the establishment of lines of circumvallation, guarded by cordons of troops, and the appointment of armed police to confine the diseased to their habitations, among their yet uninjured friends and relatives, are perverse and barbarous regulations, and the fears thus unnecessarily induced are as dangerous to the community as they are pernicious in their effects to the common feelings of humanity. But, on the other hand, if the doctrine be true to the extent our most accurate observers have deliberately reported, municipal restraints cannot be too rigidly enforced, nor can the conduct of those speculative theorists be too severely reprehended, who, by lulling the ignorant and unwary into false notions of security, not only deprive them of the obvious means of safety, but render them even the intermediate agents of disease and death, to their families and neighbours.

The term PLAGUE has been applied to various epidemical diseases attended with great mortality; and we find in the Hebrew, Arabic, Greek, Latin, and in all the other ancient languages with which we are acquainted, words having a corresponding import, and signifying, generally, an extensive and destroying malady. It appears, however, that these raging epidemics have consisted of different maladies in different instances, having been sometimes the *Remittent Fever* originating from marsh effluvia, and sometimes the true *Plague*, modified by circumstances and situations: even in our own times some doubt has existed respecting the true nature of the different pestilences which have raged in Europe. (*a*) The term PLAGUE is now more correctly limited in its acceptation, and it is exclusively understood to denote "*a contagious and malignant fever, which is accompanied by buboes and carbuncles.*" (*b*) As the nature of maladies of high degree virtually includes that of all minor affections, the Plague, in its relations to the doctrine of

(*a*) See *Rees's Cyclopædia, article Plague. Hancock on the Laws of Pestilence, London*, 1821. *Mercurialis on the Plague of Venice, in* 1576. *Diemerbroeck on the Plague of Nimeguen, in* 1636. *Mertens on the Plague of Moscow, in* 1771. *Chenot on that of Transylvania, in* 1756. *Riverii Praxis Medica, vol.* 2. *p.* 98. *Glocenius de Peste*, 1611. *Mead on the Plague of London*, 1744. *Russel on the Plague. London*, 1791. This learned Physician practised at Aleppo during the Plague of 1760–1–2, and his work contains a minute account of the disease with respect to its origin, progress, and decline: it is considered the best medical account of any individual Plague extant. *A History of all the most remarkable Plagues upon record, by Noah Webster, of New York. Considerations on the nature of Pestilence, published as periodical papers, by the Freethinker*, 1721. *The City Remembrancer, compiled from the best sources, chiefly from the Papers of Gideon Harvey.* This is the best account of the Plague of London. *Kephale's Medela Pestilentiæ*, 1665. *Echar's History of Plagues. Gaetan Sotira, Mem. sur la Peste, observée en Egypt. Pappon's Epoques memorables de la Peste.*" 1801.

(*b*) *Cullen* defines *Pestis* to be "Typhus maxime contagiosa, cum summa debilitate—Incerto morbi die eruptio Bubonum vel Anthracum." *Nosolog. Method. Gen.* 30.

Contagion, may on this occasion be considered as the representative of every species of Typhus; while for the same reason the Pestilential Epidemic which is generally known by the name of the YELLOW FEVER may be regarded as including in its history all the subordinate varieties of *Bilious Remittents*.

It is scarcely necessary to observe that it would be as foreign to the object of this work, as incompatible with the plan of its execution, to enter into any historical details upon the subject of Pestilence, or upon the controversies which have been carried on respecting the manner in which Epidemics are propagated; nor is such a review now required to complete the medical literature of the subject; for Dr. *Hancock* (*a*) has lately supplied the chasm by a very able critical examination of the principal writers which have appeared at different times on the subject of Epidemic and Pestilential diseases, and to this work we beg to direct the reader's attention, although as medical Jurists we are not disposed to concur in those half measures of *Quarantine* which the result of his researches might incline some to adopt. We may state in general terms, that the concurrent testimony of different ages and countries sanctions the opinion that Plague arises from specific contagion—is communicated *immediately* by contact, (*b*) or *mediately* by the

(*a*) Op. citat.

(*b*) See *Sir Arthur Brooke Faulkener's Treasise on the Plague.* The remarkable fact, mentioned by Dr. *Samoilowitz*, that all the assistant Surgeons in the hospitals at Moscow took the Plague, while the Physicians who only walked among the sick, but carefuly avoided contact, generally escaped, affords a strong proof of the greater facility with which *actual contact* communicates the infection. This work of Dr. *Samoilowitz* (*sur la Peste*) has more than a hundred pages filled with proofs of its *contagious* influence; Dr. Granville also, in his examination before the Committee of the House of Commons, gave some very interesting instances, in which the poison could only have been conveyed by *touch*.

agency of infected goods (*a*) (*Fomites*); and that its progress may be arrested by a vigilant system of Police, cutting off every communication between the infected and the healthy. The contagious nature of Plague has however been denied, and many thousand lives have paid the forfeit of the delusion; it was thus during the Plague of Marseilles in 1720, that in consequence of the physicians in Paris having decided against its contagious nature, a plan, in conformity with that opinion was adopted in the treatment of the sick, and *Sixty Thousand* people fell victims to the disease in the space of seven months. A similar prepossession induced the faculty of Sicily to declare the Plague which ravaged Messina in 1743, *not* to be contagious, but the loss of *Forty-three Thousand* lives gave a practical refutation to the hypothesis.

In our own times, a work characterised by singular arrogance and sophistry, has appeared from the pen of Dr. *Charles Maclean*, (*b*) the object of which is to shew that "a belief in the contagious nature of "the Plague constitutes one of the most destructive "errors in the whole circle of human opinions;" in the very commencement of this work he betrays an ignorance which is not uncommonly associated with that species of unbecoming confidence, which so strikingly characterises the writings of this author. "It is unequivocally ascertained," says he, "that "the doctrine of contagion, as the cause of epidemic

(*a*) *Fomites*, or substances imbued with the contagion from the bodies of the sick, are supposed to retain their infectious quality an indefinite length of time, and even to communicate the disease more readily than the persons of the infected.

(*b*) *Results of an investigation respecting Epidemic and Pestilential Diseases, including Researches in the Levant concerning the Plague. By Charles Maclean, M.D. London*, 1817.

" diseases, was unknown to the ancient physicians; " by whom these maladies were expressly attributed " to the air:" and he then proceeds to state that the prevalent notion of contagion being an inherent quality of pestilential fever, is derived from a Popish plot of the sixteenth century; an assertion which has not even the merit of originality (*a*). *Hippocrates* and *Celsus* do not certainly take any notice of the subject of contagion; but *Aristotle*, *Thucydides*, *Livy*, *Virgil*, *Lucretius*, *Ovid*, *Galen*, and *Aretæus* all contain passages which prove most unequivocally their belief in the contagious nature of Epidemics; the limits of this work will not allow us to be prodigal in illustrations, we must therefore refer the reader to a very interesting memoir upon the subject by Dr. *Yeats*. (*Journal of Science and the Arts.*) With respect to the work of Dr. *Maclean* we would further observe, that he has artfully brought together all those facts which are calculated to afford any support to his doctrine, while he has so ingeniously tortured

(*a*) It is noticed by writers long before Dr. Maclean: see " *Distinct notions of the Plague*, 1722. *Dale Ingram on the Plagues that have appeared since* 1346; *and Plague no Contagious Disease*." The following is the story to which these authors allude.—It appears that Pope Paul III, about the year 1747, commissioned his legate, Cardinal Montè, to fabricate some pretext for removing the celebrated Council of Trent, which was then sitting in debate on the abuses of the ecclesiastical power, to some town within the Papal territory. An epidemic fever, it was said, then prevailed at Trent: many of the bishops became alarmed, and fled; some, if not all, on the Emperor's side, raised their voices against the plot; but Fracastorius, Physician of the Council, aided the imposition with all the zeal of a devoted Catholic, and the Council was accordingly translated to Bologna. From this time, Dr. Maclean asserts, it became almost heretical to doubt of the contagious nature of Plague; and the error, chiefly because it was sanctioned by the sovereign Pontiff's authority in the first instance, has been propagated in christendom, as a point of medical orthodoxy, and continued down to the present time.—*Maclean, loco citato,—Hancock on Pestilence*, p. 11.

those that make against it, as to disguise their force and true bearings. Mr. *Tully* (*a*) has lately furnished the public with some striking instances of the total want of candour with which Dr. *Maclean* pursued his researches, but the fact is that he determined on the Plague being *non*-contagious long before he ever visited those countries where it prevails; and hence all the advantages which he possessed, and the opportunities of investigation which his residence in the Levant afforded, have not contributed one fact to the elucidation of the subject, but have, on the contrary, thrown additional obstacles in the path of the honest inquirer.—What can be the organization of that man's mind, who goes into the Greek Pest Hospital at Constantinople, and, according to his own statement, is attacked on the fifth day after he entered it, with the Plague, and yet continues to assert that the malady is *non-contagious ?*

To Dr. *Maclean*, however, the medical world are certainly greatly indebted, for had not his *Researches* been published, it is more than probable that the question of Contagion would not have received the many able elucidations which the experience and science of this country has since afforded it: (*b*) nor

(*a*) *The history of the Plague, as it has lately appeared in the islands of Malta, Gozo, Corfu, Cephalonia, &c. detailing important Facts, illustrative of the Specific contagion of that disease, with particulars of the means adopted for its eradication*,—By J. D. Tully, Esq. Surgeon to the Forces, late Inspector of Quarantine, and President of the Board of Health of the interior of the Ionian Islands. 8vo. London, 1821.

(*b*) *A Treatise on the Plague, designed to prove it Contagious, from facts collected during the Author's residence in Malta, when visited by that malady in* 1813, *with Observations on its prevention, character, and treatment*,—By Sir Arthur Brooke Faulkner, M.D. London, 1820. This work may be considered as one of the richest classical productions on the subject of the Plague; and we strongly recommend it to the attention of the medical reader on account of the important facts, powerful arguments, and correct judgment, which distinguish it.

would an opportunity have occurred by which the most eminent physicians, and those practically acquainted with the malady, could have delivered a *viva voce* opinion before a Committee of the House of Commons. (*b*) It may be thought extraordinary that a work, so unphilosophical as that to which we allude, should have created so strong a public sensation; but when we consider the eagerness with which mankind seize any circumstance, however weak, that points towards the removal of burdens under which they are suffering, we shall cease to feel surprised that a work of such bold, and promising assertions, should have soon found its way, through commercial channels, to the table of the Privy Council; nor is it strange that government, naturally anxious to relieve commerce of unnecessary burdens, should have instituted an inquiry to ascertain whether Quarantine regulations were actually necessary, and how far they might be relaxed with safety to the country. A report was accordingly requested from

See also *Narrative of Facts relative to the repeated appearance, propagation, and extinction of Plague among the British Troops in Egypt, in the years* 1801, 1802, & 1803,— By JOHN WEBB, *Director General of the Ordnance Medical Department*: published in the Medical Transactions of the College of Physicians, vol. vi.

(*a*) In the year 1819, Sir *John Jackson* moved for a Committee in Parliament to inquire into the expediency of abrogating or modifying the restrictions imposed by the Quarantine laws; in which motion he was supported by the Right Honourable *F. Robinson*, President of the Board of Trade. The principal objects of inquiry on the subjects in question were, *first*, Is the Plague capable of being communicated from person to person, either by immediate contact with those diseased, or intermediately, by contact with infected goods? or *secondly*, Is it an Epidemic depending only on a peculiar state of the atmosphere? The number of medical men examined upon this occasion was nineteen, only two of whom, Dr. *Maclean* and Dr. *Mitchell*, denied the contagious nature of the Plague.

the College of Physicians; who, in order to meet the wishes of the government, appointed a committee from their own body to undertake the requisite examination; it is almost unnecessary to state the conclusion at which they arrived; their report is virtually included in that of the Committee of the House of Commons (for which *see Appendix, p.* 185.) With respect to the contagious nature of those fevers which have lately committed their ravages in these dominions, especially in Ireland, the proofs appear to be so satisfactory and evident, that we question the stability of that man's mind who can doubt, and still more who can deny it. But although the question of contagion as relating to certain epidemics appears to be firmly established, we are by no means insensible to the difficulties and anomalies with which the subject is embarrassed; several of which are so important in relation to Police legislation, that we feel it necessary to offer a few observations upon each of the following questions, and which appear to include all the leading points of controversy.

I. *Are all Epidemic Fevers contagious?*

II. *Does the matter of Contagion require the aid of a certain state of the air (Pestilential constitution) to give effect to its powers, and propagation; and to what causes is the decline and cessation of a contagious pestilence to be attributed?*

III. *Can filth and animal putrefaction generate contagion?*

IV. *Can a Fever produced by fatigue, unwholesome food, &c. be rendered contagious in its career by animal filth, impure air, &c.*

I. *Are all Epidemic Fevers contagious?*

It has been maintained by Cleghorn (*a*), Hamilton (*b*), Clark (*c*), and Fordyce (*d*), that *all* fevers are naturally contagious; a position which, if less mischievous in its tendency, is equally erroneous in principle, as that which rejects the doctrine of contagion altogether. It is most probable that none of those fevers which are produced by marsh *miasmata* are ever propagated from one individual to another by contagion; ample evidence of this truth is afforded by the writings of Dr. James *Lind* (*e*), where it appears that the most malignant and fatal species of fever have been contracted on shore, but which had never been communicated to the ship's company. Dr. Trotter (*f*) also says, "in a voyage down the coast of Guinea, in the Assistance, in the year 1762, we had scarcely a man indisposed. We wooded and watered at the island of St. Thomas, and with a view to expedition, a tent was erected on shore, in which the people employed on these services were lodged during the night. On the middle passage every man who slept on shore died, and the rest of the ship's company remained remarkably healthy." For similar facts see *Medical Observations and Inquiries, vol.* iv, *p.* 156; *Clarke's Observations on the Diseases which prevail in long Voyages to Hot Countries, p.* 124; and *Dr. Robertson's Meterological and Physical*

(*a*) *Observations on the Epidemical Diseases af Minorca. Edit.* 3, *p.* 132.

(*b*) *Observations on Marsh Remittents, p.* 39, *&c.*

(*c*) *Observations on the Diseases which prevail in long voyages to hot countries. Vol.* 1, *p.* 151.

(*d*) *On Simple Fever. Edit.* 2, *p.* 113, *and* 114.

(*e*) *Essay on the Diseases incidental to Europeans in hot climates. Edit.* 5, *p.* 27, *and* 221.

(*f*) *Medicina Nautica, vol.* 1, *p.* 456.

Observations, &c. 4to, p. 32, 33, and 98. And in connection with this subject, it becomes our duty to offer a few remarks upon the nature of that peculiar Epidemic, called THE YELLOW FEVER. (*a*) Its doubtful affinity with bilious intermittent and remittent fevers, has furnished a subject for keen controversy; and while its contagious quality has been pertinaciously maintained by one set of Physicians, (*b*) it has been as warmly denied by others. The malady has raged repeatedly as an Epidemic in the United States, and was considered for some time as *Endemic* to that country. "The interests of humanity," says Dr. Rush, (*c*) "are deeply concerned in the admission of the rare and feeble contagion of the yellow fever, and Philadelphia must admit the unwelcome truth sooner or later that the yellow fever is engendered in her own bowels; or she must renounce her character for knowledge and policy, and perhaps with it, her existence, as a commercial city." In the year 1811, one of the most acute and learned works (*d*) that has graced the literary annals of our country, appeared from the pen of Dr. *Brancoft*, in order to prove that the yellow fever is no other than an aggravated form of that multifarious disease, which is well known to

(*a*) *Typhus cum flavedine Cutis* of Cullen. *Typhus Icterodes* of Sauvages.

(*b*) The chief authorities on the side of its contagious nature are *An Essay on the Malignant Pestilential Fever introduced into the West India Islands from Boulam*, by Dr. C. CHISHOLM. London 1795. *Medical Sketches*, by SIR JAMES MACGREGOR. London 1804. *The Report of the French Commissioners at Cadiz, in* 1804. And the Works of SIR JAMES FELLOWS, Dr. CAILLOT, and Dr. AREJULA of Cadiz. Much valuable matter is also contained in a *Treatise* by Dr. PYM, Inspector of Hospitals. London 1818. To which may be added *The Travels of* DON ANTONIO ULLOA and DON JORGE JUAN.

(*c*) RUSH *on Yellow Fever.*

(*d*) *An Essay on the Disease called Yellow Fever*, by EDWARD NATHANIEL BANCROFT, M.D. &c. London 1811.

result from the action of those exhalations commonly denominated *marsh miasmata*, and that, like all fevers from that cause, it possesses *no contagious* quality; but he adds, "it is indeed probable that the *miasmata* of particular towns, mostly either sea-ports, or accessible to shipping, in which the aggravated forms of yellow fever have almost exclusively prevailed in the West Indies, the United States of America, and the Southern parts of Europe, differ from the common exhalations of marshes, in *quality*, as well as degrees of concentration: but whether this difference be occasioned merely by the greater heat which, at such times, commonly exists in these towns than in the surrounding country, and which may exalt the powers of such *miasmata*, by perfecting the decompositions which produce them, or whether it be partly the result of a difference in the organized matters decomposed by that excessive temperature, I am unable to determine." We must refer the reader to Dr. *Bancroft's* (*a*) work for farther information upon the subject; and we have little doubt but that, after an attentive consideration of the rich store of facts and observations which this author has presented to us, he will be led to a conclusion in favour of the general non-contagious nature of this malady, although we by no means intend to deny that it never assumes the character of a contagious Epidemic. Sir Gilbert *Blane*, whose testimony upon this subject must necessarily have great weight, has made the following

(*a*) In the year 1817 Dr. *Bancroft* published a *Sequel* to his work, in order to shew that the *Bulam Fever* has no existence as a distinct or contagious disease. This malady *Dr. Chisholm* supposed to be a peculiar, original, and foreign pestilence, and to have been imported from Bulam, on the coast of Africa, by the ship *Hankey*, to the island of Grenada; an opinion which received the support of Dr. *Pym*.

observations. "In that district of the globe in which are situated the islands called the Great and Little Antilles, also in the continental regions round the gulph of Mexico, and along the coast of South America, the fevers which prevail there have certain symptoms peculiar to themselves, and not occurring in any other part of the globe, except when carried from thence, which they sometimes have been, particularly to the sea-port towns of North America, and the South of Europe.

The peculiarities alluded to, consist in a universal yellowness of the skin, and the vomiting of a dark coloured fluid, resembling the grounds of coffee."

Sir Gilbert *Blane* considers, that the yellow fever may proceed from three remote causes, very distinct in their nature. The *First*, is that which consists in the exhalations of the soil, such as produce the endemic fevers in other countries and climates, and prevailing chiefly in autumn. The *Second*, is that which consists in foul air engendered on board of ships on long voyages, in circumstances of personal filth, and want of ventilation, frequently combined with hardships and privations, and is the same with those stagnated and corrupted effluvia of the living human body, which produce typhus fever. The *Third* cause is that in which there is no suspicion of foul air, either from the soil, or from the living human body, but merely from circumstances of intemperance, fatigue, and insolation, affecting chiefly, and almost exclusively, new comers from temperate and cold climates. (*a*) The first of these, he says, may be distinguished by the appellation of the *Endemic;* the second, by that of the *Pestilential*, *Malignant*, or

(*a*) *Medical Logic Edit. 2. p.* 219.

Typhus Icterodes; the third, by that of *Sporadic.* (*a*) And Sir Gilbert adds, that it has been for want of making this distinction, and from classing all these three under one head, that the endless and acrimonious controversies regarding contagion have arisen. There is not the least suspicion in any rational mind, that the endemic and sporadic species are contagious, this is only alleged with regard to the pestilential or typhus species; but it may be asked what proof there is that this last is specifically different from the other two? To this Sir Gilbert answers, that it is a matter of history; that besides the endemic and sporadic fevers prevailing at all times in the above-mentioned regions, there has occurred at various intervals of time, a raging epidemic, (*b*) which could be traced to the arrival of a ship or ships in the circumstances

(*a*) SPORADIC.—An epithet used in opposition to that of *Epidemic*, and is given to such diseases as have some special or particular cause, and are dispersed here and there, affecting only particular constitutions, ages, &c. σποραδικος, from σπορας, *dispersed*, of σπειρω, *I strew.*

(*b*) The most remarkable of these Epidemics on record, are, that of 1647 in Barbadoes; that of 1686 in Martinique; that in the Spanish Main, in 1729, and 1740; and the most general and destructive of all, which broke out at Grenada in the month of March, in 1793, which spread rapidly to the whole Carribean Archipelago, and from thence to North America, and the shores of Europe. The most remarkable, and perhaps the only instances on record of its existence in North America, are that of Boston in 1693, on the arrival of a squadron of English ships of war from the West Indies; that in Carolina, in the years 1732, 1739, 1745, and 1748, all which, by the account of the physicians who describe it, could be traced to importations from the sugar colonies; that of Philadelphia, in 1751 and 1762; and that above-mentioned in 1793. It now remains to give the history of it as it appeared in Europe. It may be chronologically stated as follows: at Lisbon, in 1723; at Cadiz, in 1732, 1733, 1744, 1746, 1764, 1800; at Malaga, in 1741 and 1803; at Gibralter, in 1804. It has since appeared at different times in these cities, as well as at Carthagena, Alicant, and Leghorn. *Extracted from Sir Gilbert Blane's work.*

above recited, and at a season in which the ordinary malignant fevers do not prevail." To those engaged in researches upon this obscure subject we would farther recommend the perusal of a work lately published by that veteran in the cause, Dr. Jackson, on the subject of the Andalusian Fevers (*a*); in which he examines the evidence in support of the supposed introduction of the yellow fever into Spain, and of its real or supposed propagation by contagion. The importation of the disease from a foreign country is credited by the authorities and mass of people in Spain, though the author thinks it has never been proved by evidence, or even brought to reasonable probability; the events of the year 1820 stripping the assumption of every claim to credence, as no attempt has been made to trace the disease, in that instance, to foreign origin. The belief universally obtains through Spain, that the disease is personally contagious; that is, capable of propagation from individual to individual, by contact or proximity; Dr. Jackson, however, considers that this opinion, confidently as it is maintained, is invalidated by authentic facts and records; but we must proceed to the consideration of our second problem, viz:

II. *Does the matter of Contagion require the aid of a certain state of the air,* ("*Pestilential Constitution of the atmosphere.*") *to give effect to its powers, and propagation; and to what causes are the decline and cessation of a contagious Pestilence to be attributed?*

It was laid down as a fundamental principle by Dr. *Mead*, that a "*corrupt*" state of the air is indispen-

(*a*) *Remarks on the Epidemic Yellow Fever which has appeared at intervals in the South Coasts of Spain, since the year* 1800, by Robert Jackson, M.D. 8vo. London, 1821.

sable to the diffusion of a plague; and although we are at this day unable to ascertain in what this vitiated state of the air consists, yet there are too many stubborn facts on record to allow us to deny, or even to doubt the necessity of its existence for the propagation of a contagious fever. How are we otherwise to explain the fact of a malady like the plague, which, although it shall never be entirely absent from a city, rages only epidemically and fatally at particular times? Thus it is collected from the bills of mortality of London, that, although there were but four great plagues in this metropolis during the seventeenth century, *viz.* the years 1603, 1625, 1636, and 1665, (in the two first of which about 35,000, and in the last 68,000 died) yet that there were but three years, from the commencement of the bills of mortality in 1603 until 1670, which were entirely free from the plague. (*a*) *Diemerbroeck* also remarks, that whenever the plague has been excited out of its proper season it has not spread; a fact corroborated by *Russel* and *Hodges*. (*b*) It seems probable that a particular state of the atmosphere, in its relation to temperature and humidity, is one of the conditions, subordinate perhaps, of this "pestilential constitution." Dr. *Russel* has observed that, in *winter*, when infected persons have come to places about Aleppo, some of whom have died of the disease in the families where they lodged, the distemper was not by such means propagated. Dr. *Pugnet* says that the susceptibility of a person for the contagion of plague is greatly increased by a moderately warm and moist

(*a*) It is probable that the Fomites of Plague are never extinct in Turkey, although various circumstances may render it *Sporadic*, or entirely dormant.

(*b*) *Loimologia.*

atmosphere; and Dr. *Bancroft* (*a*) has adduced some observations made by himself in proof of the influence of atmospheric heat and cold, in both their extremes, in rendering the contagion dormant. The singular career which a pestilential epidemic runs, having a beginning, height, and decline, can only be explained on the idea of the pestilential constitution of the air undergoing corresponding changes; and it is probable that the return of a plague is a revival of infection that has been latent, or dormant, until a particular state of atmosphere rouses it to action.

III. *Can Filth and Animal Putrefaction generate Contagion?*

We have already made an allusion to some of those facts that must assist us in the solution of this problem, under the head of Public Health (*see page* 98.) "The putrefaction of animal matter," says Dr. *Bancroft*, (*a*) "is but a natural separation of organized bodies, previously held together by animal or vegetable life, by which there can be no chance, nor even possibility of thus generating any thing so wonderful, and so immutable as contagion; which resembling animals and vegetables in the faculty of propagating itself, must, like them, have been the original work of our common creator, and must have been continued in existence by the energies of a living principle, exerted successively in the different bodies, through which it has been transmitted from one generation to another; as well might we revive the forever exploded doctrine of equivocal generation, and believe, as formerly, that insects and reptiles are the offsprings of mere corruption, as to believe that a

(*a*) *Op citat: p.* 501.
(*b*) *Page* 159.

substance so analagous to them, in that most mysterious and essential function of self-propagation, could originate from that cause, or from any operation of chemical agencies alone." We are not disposed to believe that the specific contagion of typhus can thus be directly generated, but may not typhus be excited by causes independent of contagion, and having been once generated become contagious? If, says Dr. *O'Brien*, the opinion that contagion is the *only* source of typhus be true, we are at once reduced to the necessity of supposing that all contagious diseases were derived from Adam himself. It is an indubitable fact that the plague has always first appeared, and established its head quarters, in the filthiest parts of crowded, ill constructed, and large cities. *Blackmore* remarks that the impurity and filth, connected with the galleys and slaves at Marseilles, filled the air with offensive smells easily perceivable by those who passed along the adjoining shore; and in 1720 the plague broke out there; in London, Dr. *Heberden* also observes, that the plagues of 1626 and 1636 broke out at Whitechapel, a part of the town which abounded with poor, and with slaughter-houses. The importance of cleanliness is also shewn by the exemption of Oxford (*a*) and other places from pesti-

(*a*) The following account is taken from Quincy: "Dr. *Plott* observes, the reasons why Oxford is now much more healthful than formerly, to be the enlargement of the city, whereby the inhabitants, who are not proportionally increased, are not so closely crowded together; and the care of the magistrates in keeping the streets clear from filth: for formerly, he says, they used to kill all manner of cattle within the walls, and suffer their dung and offals to lie in the streets. Moreover, about those times, the Isis and Cherwell, through the carelessness of the townsmen, being filled with mud, and the common shores by such means stopped, did cause the ascent of malignant vapours whenever there happened to be a flood. But since that, by the care and at the

lential diseases, as recorded by different authorities, in consequence of regulations for ensuring it; while the late dreadful increase of contagious fever in Cork sufficiently demonstrates the evils which arise from deficient ventilation and accumulated filth, and to which causes Dr. *Barry*, in his report, ascribes the awful afflictions to which we allude. *Erasmus*, in a letter to *Franciscus*, Cardinal *Wolsey's* physician, ascribes the sweating sickness, which was a species of plague, in a great measure to the incommodious form, and bad exposition of their houses, to the filthiness of the streets, and to the sluttishness within doors. (*a*) That particular species of typhus, which is called from its origin the *Jail Fever*, is evidently the offspring of filth and deficient ventilation. The Lord Chancellor *Bacon* has made the following observation upon this subject: "The most pernicious infection next to the plague is the smell of the jail, where prisoners have been long, close, and nastily kept; whereof we have had, in our time, experience twice or thrice, when both the judges that sat upon the jail, and numbers of those who attended the business, or were present, sickened upon it, and died.(*b*)

charge of Richard *Fox*, Bishop of Winchester, in the year 1517, those rivers were cleansed, and more trenches cut for the water's free passage; *the town has continued in a very healthful condition, and in a particular manner so free from pestilential diseases, that the sickness in* 1665, *which raged in most parts of the kingdom, never visited any person there, although the terms were there kept, and the Court and both houses of Parliament did there reside.*"—*Plott's Hist. of Oxfordshire, chap.* ii.

(*a*) See *Dr. Heberden's Observ. on the Increase and Decrease of different Diseases, and particularly the Plague, p.* 71.

(*b*) The earliest instance of jail infection, communicated in a Court of Justice, appears to be that mentioned by Mr. Anthony *Wood*, as having happened "at the Assize kept in the Castle at Cambridge, at the time of Lent, 13th *Henry* viii. ann. dom. 1521-2, when the Justices

Dr. Bancroft, who has dwelt very fully upon the subject of jail fever, (*a*) considers it as a species of typhus, the contagious essence of which is not generated, but merely lighted up by the filth of prisons.

there, and all the gentlemen, bailives, and all resorting thither, took such an infection, that many of them died; and almost all that were present fell desperately sick, and narrowly escaped with their lives." Then comes the memorable *black assize* at Oxford, in July 1577, the best account of which is that given in "*The History and Antiquities of the University of Oxford, by Anthony Wood, M.A. of Merton College*, first published in English from the original MS. in the Bodleian library, by John *Gutch*, A. M. printed at Oxford in 1796. Another instance is mentioned by *Holinshed*, (vol. ii, p. 1547) as occurring at Exeter, during the assizes there in March 1586. From this period no remarkable case of jail infection is recorded for a period of 150 years, when at the Lent assizes, some prisoners who had been removed from Ilchester gaol, to take their trials at Taunton, were said to have infected a part of the court, and produced a contagious disease, of which the Chief Baron *Pengally*, with some of his officers and servants, and Sir James *Sheppard*, knight, and Serjeant at Law, died afterwards at Blandford in Dorsetshire. Twelve years after, viz. in April, 1742, according to Dr. *Huxham (De aëre, &c. vol.* ii, *p.* 82) a putrid fever appeared at Launceston, and occasioned great mortality; this fever, he adds, was generated in the prisons; and widely disseminated by means of the county assize. The next remarkable occurrence of this kind happened at the sessions of the Old Bailey, in the spring of 1750, which proved fatal to the Lord Mayor, and two of the Judges, with several eminent and other persons; this circumstance induced the Magistrates of London to resolve upon attempting to render Newgate more healthy; and they accordingly consulted Dr. *Hales* and Sir John *Pringle* about the method which they should follow. Dr. *Hales* recommended the use of his *Ventilator*, a machine contrived to pump out the air of any place, and thus to occasion a perpetual renovation of it. The machine was accordingly erected, and its salutary effects soon became apparent, the deaths in Newgate having been reduced from 7 or 8 a week to about 2 in a month. Eleven men were employed in erecting this ventilator, of which no fewer than 7 were seized with the disease; a very interesting account of these men, and of the mode of treatment, were drawn up by Sir John *Pringle*, and published in the *Philosophical Transactions for* 1753, *vol.* xlviii, *p.* 42.

(*b*) *Page* 144.

IV. *Can a Fever produced by fatigue, unwholsome food, &c. be rendered contagious in its career by animal filth, impure air, &c.?*

We have no hesitation in answering this question in the affirmative, and our opinion will receive ample support from the history of the different epidemic fevers which have raged in our own times. Dr. *Prichard* (*a*) is persuaded that a contagious fever may have a spontaneous origin, that is, that the ordinary sources of derangement may occasion such a kind of disordered action, that the excretions or effluvia from the subject of it shall, under certain circumstances, produce a specific effect upon another. The truth of this position is amply confirmed by comparing the different phenomena which, according to Dr. *Prichard*,(*a*) are displayed by the epidemic in St. Peter's Hospital, and the Bristol Infirmary; in the former house the medical wards are very small, having been originally destined, not for the accommodation of the sick, but for the abode of paupers; in consequence of which it became necessary to place the beds very near to each other, and to crowd the rooms with patients; under these circumstances the disease was manifestly contagious, while in the well-ventilated Bristol Infirmary, notwithstanding the indiscriminate manner in which the patients with fever were scattered through the wards, not a single instance occurred of its propagation. The Dublin Reports of Drs. *Grattan* (*b*) and *Crampton* (*c*) are equally satis-

(*a*) *A History of the Epidemic Fever which prevailed in Bristol during the years* 1817-18-19, by J. Prichard, M.D.

(*b*) *Medical Report of the Fever Hospital and House of Recovery, Cork street, Dublin, for the year ending the 5th of Jan.* 1819. By Richard Grattan, M.D. &c.

(*c*) *Medical Report of the Fever department in Stevens' Hospital, containing a brief Account of the late Epidemic in Dublin, from Sept. to Aug.* 1819. By John Crampton, M.D. &c. Dublin, 1819.

factory upon this question; atmospheric vicissitudes, intemperance, fatigue, suppressed perspiration, the depressing passions, &c. when excessive, will induce fever; and under these circumstances, the accumulation of animal effluvia, in filthy, crowded, and ill-ventilated dwellings, will generate contagion, which of course accelerates the march of the epidemic.

Having thus, as briefly as the nature of the subject would allow, enumerated the several questions to which the doctrine of contagion has given rise, we now proceed to the consideration of those legislative enactments, by which different nations are enabled to ward off the calamities of Plague. It is generally admitted, that the plague has not originated in this country; and therefore, from its insular situation, the infection can only be introduced through the medium of ships. Egypt, the Levant, and other parts of the Mediterranean are seldom free from it, and hence it is chiefly through the medium of the commerce with these countries that the importation of the contagion is to be apprehended. To guard against this danger, the different governments require all ships sailing from any of these parts, to bring certificates from the magistracy of the port they last came from, declaring their country free from any contagious distemper: these are called "BILLS OF HEALTH," and are distinguished as *clean* or *foul*, as the place they come from may be healthy or infected. On the production of these bills it is determined by the Guardians of Health (in England, Custom-house officers) whether the vessel shall be permitted to trade or communicate, or, as it is technically expressed, be permitted to *pratique* till she has performed a QUARANTINE (*a*) of

(*a*) QUARANTINE, or Quarantain, a French word signifying the space of forty days; why forty days should have been fixed upon as the

as many days as the superintendants may in their judgment or caprice be pleased to direct. A period of *forty* days (hence the term *Quarantine*) has been generally fixed upon as the maximum of this seclusion, on the expiration of which it is customary abroad for physicians, accompanied by some members of the board of health, who are frequently merchants of the place, to examine the ship's crew; and strict search is made on board, by persons appointed to see whether the number of sailors and passengers corresponds with those mentioned in the bills of health, and if any difference appears it will be difficult in any country to obtain admission to *pratique*, or at least it will be necessary to perform a full quarantine from the time of such detection.

period of probation upon these occasions is not very evident. *Beckmann* observes that it arose from the doctrine of the ancient physicians, in regard to the critical days of many diseases, of which the fortieth seems to have been considered the last, and most extreme, and on which many astrological conceits were formerly maintained. (See *G. Wedelii Exercitatio de Quadragesima die*, in his *Centuria Exercitationum Medico-Philologicarum*, Jenæ 1701.) This explanation however is not quite satisfactory; forty days appear to have been a period fixed upon for various kinds of probation, (probably from the duration of Lent); we have thus *Quarantain* of the King in France, which denotes a truce of forty days appointed by Saint Louis, during which time it was expressly forbidden to take any revenge of the relations or friends of people who had fought, wounded, or affronted each other in words. So again in the law of England, the word *Quarantine* denotes a benefit allowed to the widow of a man dying seized of land; by which she may challenge to continue in his capital messuage, or chief mansion house (so it be not a castle) for the *space of forty days* after his decease; during which time her dower shall be assigned. *Coke upon Lit.* 34, 35.

An account of the various establishments for preventing the plague in different countries, with a reference to the best writers, may be found in *Schleswig Holstein schen Blattern fur Polizey und Cultur.* 1800, 2 *p.* 341.

Legislative enactments for arresting the progress, and preventing the diffusion, of contagious diseases are mentioned in the earliest history: it is, for instance, commanded in the books of the law of Moses, that the

Such commodities however as are *deemed* incapable of retaining or communicating the infectious taint, as corn, &c. are permitted to be landed immediately by the mariners themselves, at proper places provided for that purpose, which are generally called LAZARETTOS, some of which in the principal ports of the Mediterranean are of very considerable extent, and as to division and appropriation appear so well calculated for their intended purposes as to be worthy of imitation. The best praise of their regulation is indeed to be found in their success; for though twelve months never elapse but that the plague rages in

priests shall be desired to visit houses infected with the plague of leprosy, which, if necessary, are to be closed, and even pulled down; or the walls are to be scraped and white-washed, and the infected persons to be shut up. (*Leviticus, chap.* xiii, xiv.) The laws of QUARANTINE, however, as directed against the propagation of Pestilential Epidemics have a later origin. In the first centuries of the Christian era, it does not appear to have been known that infection could be communicated by cloathing, and other things used by infected persons. After the plague in the fourteenth century, which continued longer than any other on record, and extended over the greater part of Europe, the survivors found that it was possible to guard against, or to prevent infection, and Governments then began to order establishments to be formed for that purpose. The most ancient of these appear to be those in Lombardy and Milan in the years 1374, 1383, 1399; an account of which may be seen in MURATORI *Scriptores rerum Italic:* T. xvi, *p.* 560, & xviii *p.* 82, and from thence copied into CHENOT, p. 147. See also BOCCACIO *Decam.* The Venetians are entitled to the merit of having improved the establishments formed to prevent infection, and that their example was followed in other countries is generally admitted. MURATORI (*Lib.* i, *cap.* ii, *p.* 65) says that Quarantine was first ordered to be performed by the Venetians in 1484; and HOWARD (*An Account of the principal Lazarettos; London*, 1789, 4*to p.* 12) states that the College of Health was instituted in 1448—see BECKMANN'S *History of Inventions*, vol. ii, p. 153—and *Considerations on the Means of Preventing the communication of Pestilential contagion*, by W. BROWNRIGG, London, 1771. On the Turkish frontiers the period of Quarantine was reduced to *twenty* days, under the Emperor Joseph II. See MARTINI LANGE *Rudimenta Doctrinæ de Peste.*

some part of the Levant and of the coasts of Barbary, the infection has seldom reached the coasts of Italy, France, or Spain. Terrible exceptions may be adduced to this remark, yet they may generally be traced to some clandestine violation of the Quarantine laws, rather than to their imperfect execution, as in the recent instance of the plague (*a*) at Malta in 1813, when the cupidity of a poor cobler in smuggling some materials from a Greek or Turkish vessel in the harbour of Valetta, introduced the pest into the island, to which he and his family fell the first victims.

The objections to the Quarantine laws, as executed in the Mediterranean, arise more from the indiscriminate and vexatious application of them to cases for which they were not provided, than from any general relaxation or want of vigilance in the officers appointed to enforce them: occasionally indeed the courtesy of these gentlemen will deem a governor or wealthy noble to be incapable of communicating infection, though from the most suspected port, while a whole fleet of merchantmen, arriving with clean bills from the Atlantic, will be detained for some weeks, *ex abundanti cautela*, without admission to *pratique;* from such instances travellers who have been annoyed, and merchants who have been injured, have imbibed a very general prejudice against these laws; nor have they wanted learned authorities to contend with them for their abolition, on the grounds of their abstract inutility in preventing infection (admitting the contagious nature of the disease which some have denied), and the injurious tendency to the general interests of commerce.

(*a*) For an interesting account of the rise and progress of this disease, see Sir A. *Faulkner's* work already quoted.

We have drawn the readers attention to the regulations of the Mediterranean, because we are convinced that if there be any value in the system it must be made complete in all its parts, and ought to be as much the subject of international as of local legislation; unless all countries, and more particularly those in more immediate contact or communication with the infected regions, concur in the restrictions, it will be vain to enforce them in Great Britain. In the instance of the plague, the want of precaution among the Mahomedans allows the disorder to spread from Constantinople to every part of Greece, from Symrna to the whole African coast of the Mediterranean, while the European shores are free from its calamitous progress.

By the statute 26 *Geo.* 2, all vessels, persons, and goods, coming from places from whence the plague may be brought, were subject to perform Quarantine in such places as shall be appointed by his Majesty in Council, (*a*) and notified by proclamation in the London Gazette; this and all other acts relating to Quarantine were repealed by the 45th *Geo.* 3, *c.* 10, by which these laws were more extensively regulated, certain duties are levied for the maintenance of the system, and until they are paid according to the tonnage (see 26 *Geo.* 3, *c.* 60) of the vessel, she cannot be permitted to clear inwards; it is enacted that all ships and vessels, as well his Majesty's ships of war

(*a*) Though no punishment is annexed by the Act to any offence against the Order of the King in Council, yet the disobedience of such an order founded on Act of Parliament, is an indictable offence, and punishable as a misdemeanor at common law; *King* against *Harris*, 4 T. R. 202, which was the case of a pilot who quitted a ship subject to Quarantine contrary to the established regulations.

as all others, coming from or having touched at any place, from whence his Majesty in Council shall have adjudged and declared it probable that the plague or any other infectious disease highly dangerous to the health of his Majesty's subjects, may be brought; and all ships, vessels, or boats, which may have received any person, goods, letters, &c. from such vessels, &c. shall be considered liable to Quarantine within the meaning of the Act, and to any order of the King in Council, published by Proclamation in the London Gazette. "And whereas certain goods and merchan-"dize are more especially liable to retain infection, "and may be brought from places infected into other "countries, and from thence imported into Great "Britain or the islands aforesaid," his Majesty is enabled to make special orders as to any particular goods or vessels liable to any alarming or suspicious circumstances. In cases of emergency, the privy council, or any three of them, may make such orders as they shall think necessary; and this not only as to ships and merchandize, but generally in case of infectious disease appearing in Great Britain. This clause deserves very particular attention, for though we have been happily free from any very severe visitation of contagious disease, yet there are instances where local regulations would have been highly expedient, at least to the extent of directing the destruction of the clothes and beddings of persons dying of highly infectious disorders, and securing the purification, fumigation, and ventilation of their rooms or houses; some doubt may indeed arise whether the words of the clause are sufficiently strong to warrant such measures, "and in case of any infectious disease "or distemper appearing or breaking out in Great "Britain or the islands aforesaid, to make such or-

"ders, and give such directions, in order to cut off "all communication between any persons infected "with any such disease or distemper and the rest of "his Majesty's subjects, as shall appear to the said "Lords of his Majesty's privy council, or any three "or more of them, to be necessary or expedient;" nothing is here said of goods.

The Quarantine Laws may also from time to time be mitigated if necessary by the Privy Council. Sec. 12.

Ships liable to quarantine must make signals on meeting other ships within four leagues of the United Kingdoms, or the Islands of Guernsey, &c. under penalty of £200. Sec. 14.

Masters of vessels coming from abroad must give an account to the pilot of the places at which they have laden or touched. Sec. 16. And must answer inquiries made by an appointed officer of the customs, on oath or not as he may be required. Sec. 18.

Pilots are bound to take vessels liable to quarantine into appointed places. Sec. 17. And if the vessel arrive at any other place, she may be forced to repair to that appointed. Sec. 19.

Any Master having touched at infected places, &c. and omitting to disclose the same, or to hoist prescribed signals, (*a*) shall be guilty of felony without clergy. Sec. 19.

Commanders must deliver up bills of health, manifest log book and journal, under penalty of £100. Sec. 20.

(*a*) The signal by day is a yellow flag of six breadths of bunting at the maintopmast-head, and if the vessel have not a clean bill of health, then the flag must have in it a black circular mark or ball, whose diameter must be equal to two breadths.

(*b*) This rule should be extended to vessels meeting at Sea.

Masters quitting vessels or permitting others to quit them, or for not conveying vessels to the appointed places, subject to a penalty of £500. Persons leaving vessels before they are discharged are subject to a penalty of £200, and six months imprisonment; and any person may use necessary force to compel them to return on board, on their attempting to quit such vessel. Sec. 21.

A penalty of £200 on improperly landing goods from a vessel which has performed quarantine in any foreign Lazaret. Sec. 22.

Disobedience or refractory behaviour in persons under or liable to quarantine, or persons having intercourse with them, may be punished by force, and persons escaping from, or refusing to repair to, a lazaret vessel or place appointed, are guilty of felony, without benefit of clergy. Sec. 23. Persons so escaping may be seized by any one for the purpose of being carried before a Justice of the Peace, who by warrant may direct their conveyance to the vessel or lazaret from which they have escaped, or confine them in such place of custody, (not being any public jail,) and under such restrictions as to having any communication with any other persons, as may in the discretion of such Justice of the Peace or Magistrate, *(calling to his aid, if he shall see fit, any Medical person,)* appear to be proper. Sec. 25.

Goods liable to quarantine shall be opened and aired, as directed by order in council. Sec. 29, 31.

Forging certificates is felony without benefit of clergy. Sec. 30.

In case it shall happen that any part of *Great Britain*, *Ireland*, or the Isles of *Guernsey*, *Jersey*, *Alderney*, *Sark* or *Man*, *France*, *Spain*, or *Portugal*, or the *Low Countries*, shall at any time be infected

with the plague or any other such infectious disease or distemper as aforesaid, it shall be lawful for his Majesty to prohibit and restrain all small boats and vessels under twenty tons, from sailing out of any port until security be first given by the Master in a bond of three hundred pounds, conditioned not to touch at such places; penalty for sailing without giving such security, forfeiture and twenty pounds per man. Sec. 32.

Publication in the London Gazette to be sufficient notice. Sec. 33.

Offences, not being felonies or subject to specific punishments, may be determined before two Justices, who may fine not exceeding fifty pounds, or imprison not exceeding three months. Sec. 38. Offences may be tried in any county. Sec. 42. The general issue may be pleaded to actions brought against persons for any thing done in execution of this act, which action must be commenced within two months, and treble cost shall be recovered on judgment for the defendant. Sec. 43.

For other points see the act itself, which is further extended by the 44th Geo. 3. c. 98; by this act the signal for the plague being actually on board, is appointed to be a flag of eight breadths, divided quarterly of black and yellow by day and two large lanthorns one over the other at the main-topmast-head by night. Sec. 1.

The Privy Council may order ships coming from America or the West Indies when the Yellow Fever, &c. prevails there, to go to certain places without being liable to quarantine, unless it shall be afterwards specially ordered. Sec. 6. For other regulations, see the Stat.

In Ireland the system of quarantine is regulated

by the 40th Geo. 3. c. 79, the general outline of which is the same as in the English acts, but with some additional severity towards health officers neglecting their duty, the infliction of which may occasionally be necessary. (*a*)

It now only remains for us to offer a few remarks upon the practical question to which all our preceeding researches have naturally tended: Whether the regulations of Quarantine might not be relaxed and modified without increasing the hazard of infection? Before this subject can be seriously entertained, or any concessions safely granted in favour of the mercantile interests, it must be upon the perfect understanding, and unreserved admission, that the maladies against which they are directed, are in the most extensive signification of the term, CONTAGIOUS. No claim to indulgence or exemption can be admitted, on the ground of professional scepticism, as it relates to the subject of infection, for notwithstanding the remarks of Dr. *Adams*, (*b*) and the *male sedula nutrix* of Ovid, of which he so sarcastically reminds us, we are still unphilosophical enough to maintain that "*one cannot be too cautious.*"

To those who consider our long immunity from plague a sufficient guarantee for our future security, it may be observed, that although the Island of Malta is, from many causes, much more exposed to this infection than Great Britain, yet it was free from plague for *one hundred and thirty-eight* years, a period which we must remember has been exceeded in our own case by only sixteen years; at the same time we are ready to admit with a periodical writer, that Quaran-

(*a*) See also 59 Geo. 3. c 41. which relates to infection in Ireland.

(*b*) *On Hereditary Disease*, (Note 1, p. 46.)

tine regulations might be amended, and rendered less inconvenient to commerce; they might for instance be modified as to the required period of segregation. Dr. *Harrison*, in his examination before the select committee of the house, stated a fact in connection with this subject, that deserves particular notice: that while passengers, who have made a long voyage, are liable to perform quarantine, couriers, who come in the least possible time, are not under such restrictions.

MEDICAL POLICE.

With the exception of the Quarantine laws, which on account of their superior importance have been treated in a separate chapter, and some incidental, rather than direct, aids which the subject receives from the law of nuisances, &c. there is but little of that regulation in England which can be strictly denominated MEDICAL POLICE. (*a*) We have already expressed our opinion upon the apparent inattention of our Government to this branch of legislation, and have considered it as the necessary consequence of the cleanliness and good order by which this nation is so pre-eminently distinguished; there are, however, some very material points, the value of which is acknowledged by local adoption, while no good reason has been adduced against their general extension; these are the examination of drugs and medicines by the Censors of the College of Physicians; the Irish Health Act; and the weekly Bills of Mortality.

It has been remarked from the Bench, that there might be particular reasons for taking especial care of the health of the Capital; granting this to be true, it still appears extraordinary that no measures of precaution should have been adopted to prevent or restrain the sale of factitious, impure, spoilt, or deleterious drugs or medicines, in any part of England, excepting only the city of London; while it is evident that from various causes, such as greater and more rapid sale, general competition, superiority of pur-

(*a*) The visitation of Lunatic Asylums and Mad-houses by Special Commissioners (*see* 14 *Geo.* 3, *c.* 49—*Appendix* 170) may be considered as a branch of Medical Police, for which see the subjects of Idiots and Lunatics in Part II.

chasers, and facility of detection, frauds or negligences are less likely to happen in the metropolis than in the provinces; where the slowness and uncertainty of demand may in some degree excuse the purchase of originally inferior articles from the wholesale dealers, and will generally account for the subsequent deterioration of the best drugs. It would occupy too much of our reader's time and attention, and very possibly be considered as irrelevant to the object of the present work, if we were to enter into any details upon this occasion, and to enumerate the different medicinal substances which, although originally genuine, become in a short space of time worse than useless, or whose properties by the operation of local causes are changed or destroyed. (*a*) This is a loss upon which the country practitioner must calculate; but that the inconvenience and danger may not fall upon his patients, it is surely expedient that some authority should be established to examine and destroy, as in London, all spoilt or deteriorated medicines; for this purpose, provincial censors might be nominated by the College of Physicians, either from among their own members, or from the most eminent Licenciates, whose duty it would be to make frequent visits for the purpose of examination, in market towns; and in all other places, whenever they were called upon by any sufficient occasion, or requisition.

Another equally important restriction is requisite as well in London as in the provinces, against the sale of poisonous, or highly dangerous drugs, to unknown

(*a*) The local causes to which we would particularly refer, are those connected with humidity of atmosphere, which so generally occurs in the vicinity of the sea. The author speaks from experience, when he ventures to assert that the most efficient extracts soon lose their powers under such circumstances.

persons. A week scarcely elapses without the relation in the public journals, of some awful case of murder, suicide, or fatal accident; surely this is sufficient to shew the necessity of some new enactment on the subject. We are willing to admit that it would be difficult to frame an act which should comprehend and class all the several articles that negligence, folly, or malice might pervert to the destruction of human life: the desired effect would, however be best attained by giving to some competent authority the power of publishing and enforcing, from time to time, such regulations and restrictions as might be found practically necessary. *Arsenic*, for example, is of all others, the poison most easy to procure, under various pretences; while from its exceeding virulence, insipidity, and other qualities, it is most fatally adapted to the horrible purposes of murder. The general pretext for its purchase is that of the intended destruction of vermin; now if mixed with one hundred times its weight of tallow it would be equally, if not better adapted to the avowed object, while at the same time it would be thus rendered an inapplicable instrument for the perpetration of crime. On other occasions it might be combined with some highly nauseous and colouring material; but it ought never to be sold in a pure form, except to persons who are well known, and whose ordinary trades and occupations justify their application for a supply. *Laudanum*, or *Opium*, from its nauseous taste and smell, is seldom applied to the purpose of murder, except by suicides; against the sale of these drugs it would be most difficult to guard, although many fatal results might have been averted by vigilance and judicious precaution; the Chemist or Apothecary cannot with propriety refuse it, but he is not bound to supply

more than a single dose to a stranger, and that should be mixed with some appropriate vehicle, in order to prevent the designing applicant collecting from shop to shop a quantity sufficient for any criminal purpose. And we are of opinion that the master, or principal assistant, should be alone allowed to dispense dangerous medicines. The careless substitution of one drug for another must be also considered as a prolific source of mischief; this frequently happens in the shop of the chemist or druggist, where it is least excusable; at other times it occurs from the negligence of some individual, who leaves a poisonons substance in company with articles that are intended for ordinary use. *Oxalic acid*, to which so many deaths have been lately attributed, may serve as an instance; in its external characters it bears such a resemblance to those of common *Epsom salts*, as readily to deceive the ordinary observer; and as both substances very frequently become articles of retail custom, they are usually kept ready for sale, in parcels of an ounce each, a practice which renders a careless substitution an error of common occurrence; the employment of a particularly coloured paper, that of *yellow* for instance, if used universally as a wrapper for poisonous articles, upon which also the word *poison*, or *dangerous*, might be legibly printed, would to a certain degree guarantee the safety of the purchaser; but as danger might notwithstanding be apprehended in the night, a paper of a distinct texture might afford additional security; the peculiar roughness of the Dutch filtering paper which is manufactured from woollen would answer such a purpose. The labels of phials should in this particular correspond with the wrappers of dry substances; if the distinction were once generally adopted by the various dealers, it

would soon become notorious to indifferent individuals, and many fatal accidents might be prevented, without the aid of legislative enactment. (*a*)

The College of Physicians, or a mixed Committee of the Medical Bodies, might be best entrusted with the powers of regulation to which we have alluded; while to obviate the jealousy to which such an extension of their authority would be likely to give rise, a clause might be introduced, that no regulation should be binding, until sanctioned by a certain number of the judges, as is done in some other cases of inferior jurisdictions.

It would be also expedient to establish some summary jurisdiction by which fumigation, whitewashing, and other cleansing operations, and the burning of infected clothes, might be effected without delay, whenever the prevalence of a contagious disease required it. The Irish Health Act (59 *Geo. 3. c.* 41, *see* APPENDIX, *p.* 164) might also be extended to such places in England as by authority should be, from time to time, declared infected.

(*a*) A bill was recently introduced in the House of Commons on this subject, but did not pass into a law.

BILLS OF MORTALITY.

Bills of Mortality were instituted in the city of London in the year 1592, in order to collect and exhibit the number of deaths, and to record the progress, diffusion, and decline of the epidemic malady, with which the city was at that time infested; but upon the cessation of the plague, the bills were discontinued. It appears, however, in consequence of the recurrence of the sickness, that they were reestablished by public order in 1603, and on the 29th of October in the same year, being the first of the reign of King James, the establishment of a regular series of weekly bills of death commenced. In 1606 the number of christenings, as well as that of burials, appeared in the returns, and although diseases and casualties were recorded as early as 1604, no public notice was made of either before the year 1629, when another important improvement took place—that of distinguishing between the sexes. In 1728 the ages (*a*) of all who died from under two years of age and upwards were regularly specified, and this may be considered as the last (*b*) improvement which the bills of mortality have received; for notwithstanding the ra-

(*a*) The first bills containing the ages of the dead were those for the town of Breslaw in Silesia, from which Dr. HALLEY deduced a table of the probabilities of the duration of human life, at every age, see *Philosophical Transactions* (Abridgement vol. iii, p. 669.) Similar bills were established at Northampton in 1735.

(*b*) We ought to mention that in consequence of the apprehension respecting the plague having subsided, the company soon began to discover that the weekly bills declined in sale; in order therefore to keep alive the public interest, and to preserve for themselves the income which arose from it, they printed on the same sheet, in the year 1785, the regulated prices of bread and salt.—!

pid march of those arts and sciences with which every branch of statistics is so intimately connected, the contents, arrangement, and language of these bills have remained unchanged. The collating, printing, and publishing these documents, as far as they relate to the metropolis, are placed under the superintendance and jurisdiction of the ancient corporation of parish clerks : (*a*) a power which it is hardly necessary to observe is wholly inadequate to the accomplishment of the medical, political, and moral objects which these bills are calculated to promote. As to the nature of the diseases of which persons die, much error must necessarily arise from the absurd manner in which the investigation is conducted, as the following statement will clearly demonstrate.— The churchwardens of each parish within the bills of mortality, appoint two old women to the office of *Searchers*, who, on hearing the knell for the dead, repair to the sexton of the parish, to learn the name and residence of the deceased. They demand admittance into the house to examine the body, in order that they may see that there is nothing suspicious about it, and *judge* of what disease the person died, which they report to the parish clerk. The regular charge for the performance of this office is *fourpence* to each *searcher ;* but if an extra gratuity be tendered, they seldom trouble the domestics with any examina-

(*a*) This society was incorporated by Letters Patent of the 17th Henry iii, in 1239, by the style of the "*Fraternity of Saint Nicholas ;*" and they were re-incorporated by charter of the 9th of James i. In 1625, they obtained a decree from the Star chamber, allowing them to keep a press in their hall, for the printing of the weekly and general bills of mortality of the city and liberties of London : and for this purpose the Archbishop of Canterbury appoints a printer. All which privileges were subsequently confirmed by a charter granted by Charles ii.

tion. We entirely agree with Dr. *Burrows* (*a*) in thinking that the office, as at present filled, should be entirely suppressed; and the attestation of a properly qualified medical practitioner, upon actual knowledge of the disease of which the person died, or upon inquiry and examination of the body, should be substituted. Were competent persons only appointed to report, the nomenclature (*b*) and classification of diseases, in which there has been little variation since the origin of the bills, would consequently be reformed; and we should then derive from them the elucidation of many important and dubious medical points, as 1. *The causes of many diseases, and their affinity to one another.* 2. *The rise, situation, increase, decrease, and cessation of epidemic and contagious diseases.* 3. *The means of guarding against their extension and effects.* 4. *The comparative healthiness of different countries and places, climates, and seasons.* 5. *The influence of particular trades and ma-*

(*a*) *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality, with suggestions for improving and extending the System of Parochial Registry.* London, 1818.

(*b*) Many of the diseases are absolutely unintelligible under their present designation; such, for instance, as *Headmoldshot; horse-shoe head; over-grown head; rising of the lights, &c.* others are barbarous, as *liver-grown; twisting of the guts, &c.* others again are far too indefinitely expressed to be admitted as specific diseases, of which *aged; bed-ridden; bile; colds;* may serve as examples. "*Fevers of all kinds*" is a little too sweeping and indiscriminate. "*Abortives and still-born*" united, form a large number in the general annual bill, the absurdity of which is apparent. *Child-bed* is a formidable article in the bill, and is liable to much misinterpretation and error; all women dying within the month after delivery are indiscriminately classed under *child-bed*, whether they die in actual labour, or subsequently of acute fever, consumption, or any other disorder. Infants dying before baptism are not returned by the parish clerks in the bills of mortality. In the old bills they were entered under the denomination of *Chrysoms*, but this title has been long disused. See Burrows's *Strictures*, p. 53.

nufactures on the human constitution. Such are the medical advantages which would arise from correct and enlarged bills of mortality. Dr. William *Heberden* (*a*) has made the following observations upon this subject: "People have fallen into two opposite errors concerning the Bills of Mortality; some have considered their authority as too vague to be made the foundation of any certain conclusions; and others have built upon this foundation, without sufficiently considering its real defects. Both parties are equally wrong. The agreement of the bills with each other does alone carry with it a strong proof that the numbers under the several articles are by no means set down at random, but must be taken from the uniform operation of some permanent cause. While the gradual changes they exhibit in particular diseases, correspond to the alterations which in time are known to take place in the channels through which the great stream of mortality is constantly flowing. That there are, however, many and very great imperfections in these bills cannot be doubted; for, *First*, the births include only those who are baptized according to the rites of the church of England, by which means all Jews, Quakers, and the very numerous body of dissenters are omitted. *Secondly*, of those who are of the church of England, a very large proportion are either buried in the country, or in burial grounds adjacent to London, but without the bills; the burials also in St. Paul's Cathedral, in Westminster Abbey, the Temple, the Rolls, Lincoln's Inn, St. Peters in

(*a*) *Observations on the Increase and Decrease of different Diseases, and particularly of the Plague.* London, 1801.—See also STOWE'S *London*, book 5, p. 448.—MORRIS'S *Observations on the past Growth, and Present State of the City of London.*—JAMESON *on the Changes of the Human Body*, 8vo London, 1812.

the Tower, the Charter-house, the several hospitals of the metropolis, and other places which are not parochial cemeteries, are for that reason omitted; besides which, the great parishes of Mary-le-bone, and Pancras, have never yet had a place in the bills of mortality. *Thirdly*, many abortives and still-born are noticed in the deaths, but not in the births." Dr. *Heberden* proceeds to examine the fluctuation observable in certain diseases, and which he considers under two distinct points of view; the first comprehending their variations in different years; the second those which take place in different parts of the same year; we must refer the reader for much curious matter, and useful information, to his work above cited. Many of the provincial bills of mortality are more perfect than those of London, a superiority for which we are indebted to the eminent physicians who have resided in those districts, in example of which we have only to refer to those of Chester by Dr. *Haygarth*, (*a*) of York by Dr. *White*, (*b*) while from the returns of Northampton Dr. *Price* computed his celebrated tables of the probabilities of life, and in a curious memoir read before the Royal Society he advances strong reasons for believing that there is a prodigious preponderancy in favour of the country above the most healthy cities. (*c*) We shall conclude this subject with observing, that the metropolitan bills establish beyond all doubt the gratifying fact of the superior healthiness of London, notwithstanding its increase of population, in the present day to what it

(*a*) PHIL. TRANS. 1774, vol. lxiv. p. 67; vol. lxv, p. 85; and vol. lxviii. p. 131.

(*b*) PHIL. TRANS. 1782, vol. lxxii. p. 35.

(*c*) PHIL. TRANS. for 1775; see also THOMSON's *Hist. of the Royal Society, article Political Arithmetic*, p. 530.

was during the seventeenth century, when the deaths exceeded the births, by more than one half of the whole number; while in the present age, the sum total of births exceeds that of deaths; the same improvements have taken place also in the provinces, and we are borne out by the concurrent testimony of our best political arithmeticians, in the assertion that the value of human life is increasing in Great Britain, while the diminution in the number of certain diseases, and the total extinction of others, offer the surest proofs of the general amelioration that has taken place in our national habits and manners.

Medical Jurisprudence.

PART II.

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Introduction—1. *Of Medical Evidence generally*—2. *Of Marriage and Divorce*—*Various Questions connected with the foregoing subjects elucidated by Physiological Researches*—3. *Of Legitimacy*—*Suppositious Children*—*Tenant by the Courtesy*—*Monsters*—*Hermaphrodites*—*Physiological Illustrations*—4. *Of Idiots and Lunatics*—*Medical and Physiological Illustrations*—5. *Of Nuisances, legally, medically, and chemically considered*—6. *Of Impositions*—7. *Of Life Insurance and Survivorship.*

INTRODUCTION.

HAVING thus considered, as far as the limits of our work will allow, the Charters, Statutes, Laws and Privileges which regulate the several Public and Corporate Bodies instituted for securing the more regular practice of Medicine (*a*) in all its branches: and having commented also on the Rights, Immunities, and Liabilities, to which Medical Practitioners are entitled, or subjected, in their several individual capacities, and enumerated the prominent subjects relating to public health, it now remains for us to enter

(*a*) The term Medicine (*Ars Medendi*) is used generally as including Surgery.

into the discussion of the most important branch of our subject; the most important because, though questions affecting corporate or individual privileges may be and occasionally are of great interest to the public, yet the general administration of justice, as affecting all classes of men in the enjoyment of their natural and acquired rights, stands on higher ground, and demands the best attention of all those who either as principals or assistants; who as judges, advocates, witnssses, or even spectators, are concerned in its due execution. For this reason, we are about to draw the attention of Medical practioners to the nature and importance of the evidence, which they may be required to give in Courts of Law, on various subjects in which their science is not merely ancillary, but in the highest degree essential to the ends of justice. Nor are these subjects limited, as might at a first and superficial view appear, to the testimony required of physicians and surgeons in criminal cases, but extends in a greater or less degree through every branch of jurisprudence; nor can we yet assert that we have anticipated every point on which medical, chemical, and surgical questions may arise; as recent examples have evinced, that the rapid progress of science which has marked the last half century above all others, is daily eliciting new points both for scientific and judicial enquiry. We must therefore for the present content ourselves with following that arrangement of our subject which is afforded by a natural and immutable scale,—the life and propagation of the human species, from its commencement to its close;—prefacing the subject with some short remarks on the nature of evidence; not indeed as a legal guide to the medical witness, but to point out to him the sources of higher and more general information.

OF MEDICAL EVIDENCE GENERALLY.

As Physicians, Surgeons, and others conversant in medicine and chemistry, are constantly called upon to give testimony in Courts of Justice, it is necessary for us to enter upon this subject of the law of evidence, so far as it immediately affects the medical witness; it is proper that he should understand when he is bound to appear, and on what terms, and it may be useful for him to be prepared, by some previous knowledge of the usual course of examination, for the difficulties and objections which may arise in the progress of it. A scientific witness, fully acquainted with the subject in dispute, and by his particular knowledge well qualified to inform the Court on the most important points, is too frequently rendered miserable in himself, and absolutely ineffective to the ends of justice, by the diffidence which a man of real acquirement generally feels, when impressed at once with the novelty of his situation, a sense of the importance of the duty which he is about to perform, and a consciousness that the truths which he is about to utter, may be obscured, suppressed, or perverted, by technicalities for which he is unprepared with any defence; we do not mean to arraign the present forms of examination in general, when we assert that some abuse in practice too frequently places the witness in as painful a situation, as if he were himself a criminal.

Some knowledge of the law of evidence is the best security against this inconvenience; we propose therefore to lay down a few general rules on the points most likely to occur, and to refer our readers for

more particular information to those works which expressly or incidentally treat on this subject. *(a)*

It is necessary in the first place to consider how the attendance of witnesses is to be compelled by process, under what terms they must appear, their liabilities if they fail to appear, and their duties when in Court.

The writ of Subpœna *ad testificandum*, is the ordinary process of the Courts for compelling the attendance of witnesses; by this the intended witness is required to appear at the trial at a fixed time and place, to testify what he knows in the cause, under the penalty of £100 to be forfeited to the king.

Four witnesses may be included in one subpœna, but a ticket containing the substance of the writ (which is to be shewn at the same time) is as effectual service as the writ itself, (5 *Mod.* 355). The service must be upon the witness in person, (*Cro. Eliz.* 130) and within reasonable time, before the trial, respect being always had to the residence and circumstances of the party.

In Civil suits, the reasonable expense of the witness in going to, staying at, and returning from the place of trial, must be tendered at the time of serving the subpœna: (5 *Eliz.* c. 10, f. 12): if this is not done, the Court will not grant an attachment against the witness (*Fuller v. Prentice*, 1 *H Bl. Rep.* 49) not even if he be present in Court, and refuse to be sworn; (*Bowles v. Johnson*, 1 *Bl. Rep.* 36). But where a witness lives within the weekly Bills of Mortality, it is usual to leave only one shilling with

(*a*) For the Law of Evidence in general see Trials per pais; Gilbert's Law of Evidence; Viner's Abr. tit Evidence; Bacon's Abr. tit Evidence; Comygn's Digest. tit Testmoigne: Buller's NP; Espinasse NP; Peake on Evidence; Phillips on Evidence; 2 Tidd's Practice 845.

the subpœna: this limitation is not created by the statute of *Elizabeth*, nor have we been able to trace its origin.

The Judge will not compel a witness to be sworn till his reasonable expenses are paid him. (*ubi supra.*)

If a witness fail to attend on subpœna, without sufficient excuse, he is liable to be proceeded against in one of three ways. 1. By attachment for a contempt of the process of the Court, from which even a Peer is not exempt. 2. By a special action on the case for damages at common law. 3. By an action on the Statute of *Elizabeth* for the penalty of ten pounds (5 *Mod.* 355), and for the further recompense recoverable under the Statute; but this must be by the party *aggrieved*, and where the further damage has been assessed by the Court, out of which the process issued. Formerly no remuneration was given to witnesses attending the trial of criminal causes, yet they were bound to appear unconditionally, for "Criminal pro-"secutions are of public concern, and a witness sum-"moned to appear on a criminal trial has a public "duty to perform; and he ought not to be at liberty "to make a bargain for his appearance, as he may in "the case of a civil suit, where only private interests "are involved." (*Phill. on Evid.*). But as such attendance must frequently have been productive of considerable hardship, especially to poor persons, the Statute 22 *Geo.* 2. *c.* 3. *s.* 3. enacts, that when any poor person shall appear on recognizance to give evidence in cases of larceny or felony, the Court may order the Treasurer of the County to pay such person, such sum as to the Court may seem reasonable: as this Statute extended only to poor persons who appeared on recognizance, and not to such as appeared on subpœna, it was afterwards deemed reasonable by the Legisla-

ture, that every person so appearing on recognizance, or subpœna, should be allowed his reasonable expenses, and also in case of poverty, a satisfaction for his trouble and loss of time. (*Phill. on Evid.*). The Statute 18 *Geo. 3. c.* 19. *s.* 8. therefore enacts, that "Where any person shall appear on recognizance or "subpœna to give evidence as to any grand or petit "larceny or other felony, whether any bill or indict-"ment be preferred or not to the Grand Jury, it shall "be in the power of the Court (provided the person "shall, in the opinion of the Court, have *bonâ fide* "attended in obedience to such recognizance or sub-"pœna,) to order the Treasurer of the County or "Division, in which the offence shall have been com-"mitted, to pay him such sum as to the Court shall "seem reasonable, not exceeding the expenses, which "it shall appear to the Court the said person was "*bonâ fide* put unto by reason of the said recogni-"zance and subpœna, making a reasonable allow-"ance, in case he shall appear to be in poor circum-"stances, for trouble and loss of time." These Statutes apply only to cases of felony; on prosecutions therefore for misdemeanors, and in other cases not specially provided for by Act of Parliament, the Court is not authorized to order a compensation to witnesses for their attendance; (7 *T. R.* 377: see also *Burn's Justice, tit. County Rate*). As these Acts, and the 45th *Geo.* 3. *c.* 92. which compels the attendance of witnesses in any part of the United Kingdoms, their expenses being first tendered, do not meet many possible and probable cases of extreme hardship, it is to be wished that some further enactments may be made on this subject: it has indeed been doubted whether the obligation on witnesses in criminal causes is as peremptory as we have stated, (1 *Chitty on Criminal*

Law, p. 612), but the weight of authority appears to be on the other side. Mr. Serjeant *Hawkins*, 2 P. C. p. 620, observes that "to persons of opulence and "public spirit this obligation cannot be either hard "or injurious; but indigent witnesses grow weary of "attendance, and frequently bore their own charges "to their great hindrance and loss;" and Sir *Mathew Hale* (2 P. C. 282) complains of the want of power in Judges to allow witnesses their charges, as a great defect in this part of judicial administration.

Our present object is to show that whatever hardship may exist in this point in general, it presses with peculiar severity on medical practitioners, (*a*) to whom time is most valuable, and the nature of whose profession requires that they should be continually within reasonable distance of their ordinary place of residence; to them therefore the tender of mere traveling expenses becomes a very insufficient compensation: the same policy which exempts them from attendance on other public duties may suggest the propriety of allowing them some adequate indemnity when their assistance becomes indispensable, and this not only for their private and immediate advantage, but ultimately for the public benefit; for if properly remunerated for their attendance, practitioners of a superior class would not be unwilling to devote some portion of their time to the assistance of public justice; whereas under the existing system it is notorious, that all who can, will avoid the burthen; and the duty therefore devolves on those who are least

(*a*) See *Severn v. Olive* (*Appendix*, p. 201), in which it is also determined that the expense of experiments to elucidate or determine points in dispute cannot be allowed in costs. We regret the decision, as it may in future cases stand in the way of important and highly useful investigations.

competent to its execution: this evil is particularly apparent on Coroner's Inquests, where the opinion of a shop-boy has often been allowed to determine a question *in limine*, which properly investigated, might have required the first science to obtain a satisfactory result.

As attendance is more burthensome on a professional man than on others, so also it is more frequently called for; men in general can only be summoned as witnesses when they have, or are reasonably supposed to have, cognisance of the particular facts in question; and he may therefore deem himself peculiarly unfortunate or imprudent, who is often present at such scenes as give rise to criminal investigation; but the medical practitioner, in addition to his liability of being called in for his assistance, and so becoming acquainted with facts, may also be summoned on matters of opinion; those therefore who stand highest in public estimation as men of science and research, will be most frequently burthened with the execution of painful and unprofitable duties; we do not believe that they will shrink from the performance of them when necessary, but we may express a hope that they may be rendered as little burthensome as their nature will allow.

Great difficulties must always arise in the examination of a medical or chemical witness, where the examining party is uninformed or at least very partially acquainted with the science in question; for it is next to impossible for Counsel so to frame their examination of a scientific witness, as to elicit the whole truth unless they are, by previously acquired knowledge, acquainted with the bearings of each answer upon the case which they are maintaining; and though there are a few instances of persons of such superior talent,

that they can collect from the mere information of their briefs, so much knowledge as will enable them to perform this duty, with credit to themselves and satisfaction to their clients and the public; yet such instances are rare, and even those most gifted will admit that there is a most material difference between examining a witness on matters of fact of which all persons who have applied themselves to the laws and nature of evidence may be competent judges, and the examination of abstract opinions, and speculations of philosophy or physics, where the examiner can as little follow the reasoning of a witness as if he spoke some foreign and unknown language. For it is impossible within the compass of any ordinary *viva voce* examination to elicit all the points on which explanation may be necessary, or to remove all the doubts which may give occasion to future controversy; hence questions of this kind are seldom determined at the first hearing, but are repeatedly brought before the Courts in the form of new trials; the cases of *Severn, King & Co.* against several Fire Insurances Offices, which in part suggested the undertaking of the present work, may serve as an elucidation of this point. The causes were conducted by professional men of the first eminence, the Judge who presided well known for his love of science, and from having attained more knowledge in several branches of natural philosophy, than can usually be acquired by those whose time is engrossed by severer studies; the witnesses were among the best Chemists of the day, yet the question (simple as it might at first appear) whether oil or sugar at certain temperatures, and under certain circumstances, should be considered the more inflammable substance, occupied three days on the first and six days on the second trial. Notwithstanding which, a third

trial took place involving the same question, and controversial pamphlets were published on both sides on the nature and supposed contradictions of the evidence.

It has been supposed that medical practitioners may avail themselves of the privilege enjoyed by legal advisers,*(a)* and that they are not bound to divulge the secrets of their patients, reposed in them in the course of professional confidence; *(b)* undoubtedly this confidence ought not to be violated on any ordinary occasion, but when the ends of justice absolutely require the disclosure, there is no doubt that the medical witness is not only bound, but compellable to give evidence; ever bearing in mind that the examination should not be carried further than may be relevant to the point in question; of this the Court will judge, and protect the witness accordingly. In the celebrated trial of the Duchess of *Kingston*, before the House of Peers, (11 *Harg.* St. Tri. 243) this point of medical liability was raised by Mr. *Cæsar Hawkins*, and determined by Lord *Mansfield* in the following words: "I suppose Mr. *Hawkins* means "to demur to the question upon the ground, that it "came to his knowledge some way from his being "employed as a surgeon for one or both parties; "and I take for granted, if Mr. *Hawkins* understands "that it is your Lordships opinion that he has no "privilege on that account to excuse himself from "giving the answer, that then, under the authority "of your Lordships judgment, he will submit to "answer it: therefore to save your Lordships the "trouble of an adjournment, if no Lord differs in "opinion, but thinks that a Surgeon has no privilege

(*a*) See Cutt v. Pickering 1 Vent, Lord Say & Sele's Case; Macclesfield, 41. or Annesley & Anglesea, 9 St. Tri. 383. 392.

(*b*) Lord Barrington's objection to disclose confidential conversation was also over-ruled in the case cited above.

"to avoid giving evidence in a Court of Justice, but "bound by the law of the land to do it; if any of "your Lordships think he has such a privilege it will "be a matter to be debated elsewhere, but if all "your Lordships acquiesce, Mr. *Hawkins* will under- "stand that it is your judgment and opinion, that a "Surgeon has no privilege, where it is a material "question, in a civil or criminal cause, to know whe- "ther parties were married, or whether a child was "born, to say that his introduction to the parties "was in the course of his profession, and in that way "he came to the knowledge of it. I take it for "granted, that if Mr. *Hawkins* understands that, it "is a satisfaction to him, and a clear justification to "all the world. If a Surgeon was voluntarily to re- "veal these secrets, to be sure he would be guilty of "a breach of honour, and of great indiscretion; but, "to give that information in a Court of Justice, "which by the law of the land he is bound to do, "will never be imputed to him as any indiscretion "whatever." The examination consequently pro- ceeded.

The observations of Mr. *Haslam*, in his work on *Medical Jurisprudence* as it relates to Insanity, (Lon- don 1817) are so pertinent to our present subject that we shall give them in his own words: "The im- "portant duty which the medical practitioner has to "perform, when he delivers his testimony before a "Court of Justice, should be closely defined, consci- "entiously felt, and thoroughly understood,—his "opinion ought to be conveyed in a perspicuous "manner; he should be solemnly impressed that he "speaks upon oath, the most sacred pledge before "God between man and man—and that the life of a "human being depends upon the clearness and truth

"of his deposition: he is not to palm on the Court "the trash of medical hypothesis as the apology for "crime; neither should the lunatic receive his cure "at the gallows by the infirmity of his evidence; but "above all, his opinion should be so thoroughly "understood by himself, so founded by experience "and fortified by reason, that it may resist the blan- "dishments of eloquence and the subtil underminings "of cross examination. The Physician should not "come into Court merely to give his opinion—he "should be able to explain it, and able to afford the "reasons which influenced his decision—without such "elucidation opinion becomes a bare dictum."

"It is to be regretted that on many occasions, where "several medical practitioners have deposed, there "has been a direct opposition of opinion:—this "difference has sometimes prevailed respecting in- "sanity, but more frequently in cases of poison. It "is not intended to account for this contrariety of "evidence; much will depend on the sagacity of the "Counsel to institute the proper enquiries, and still "more will be incumbent on the medical evidence, in "order to explain and establish his testimony.

"The lawyer's object is the interest of his employer, "and for the fulfilment of his duty he is frequently "compelled to resort to a severity of investigation "which perplexes the theories, but more frequently "kindles the irritable feelings of the medical practi- "tioner. This distrust on the part of the lawyer, "however unpalatable, is fully justified, most wit- "nesses going into Court with the preconcerted inten- "tion of *proving* to a certain extent:—and those most "conversant in the history of human testimony, have "been extremely scrupulous of admitting it as uni- "form truth until it has been carefully sifted. Guarded

" with these precautions, and armed with professional " experience, the medical practitioner may approach " the tribunal of justice with confidence and advan- " tage to the cause of Truth. However dexterous " he may shew himself in fencing with the advocate, " he should be aware that his evidence ought to " impress the judge and be convincing to the jury." Their belief must be " the test by which his scientific " opinion is to be established. That which may be " deemed by the medical evidence clear and unequi- " vocal, may not hit the sense of the gentlemen of " the long robe, nor carry conviction to the jury."

There is a natural propensity in human nature, from which the most honorable minds are not free, to view all questions through the medium of some preconceived opinion; in law and politics it is every day evident, in physic and in science it is too often apparent. Hence our law has wisely contrived its modes of *vivâ voce* examination, in which the judge, the jury, and the counsel, on both sides, are equally empowered to sift the truth, and thus counteract the leaning which any witness may be supposed to have towards the party producing him: a foreign writer of celebrity objects to this method, and prefers the mode adopted generally on the continent of requiring written reports or depositions; we leave our readers to conclude how liable such documents are, especially with a people of lively imagination, to become controversial pamphlets, straining on either side for victory, and not for truth.

As to the mode in which a medical witness should deliver his evidence, very different advice appears to have been given by different authorities; while some impatient of delay, and dreading the arts of examination, recommend their pupils or readers to open at

once all the stores of their reasoning and information; others, fearing the effect which cross-examination may have on nervous or embarrassed witnesses, advise that no more shall be disclosed than categorically meets the question of the counsel; and to this we incline, with this difference, that, as we should deem too costive a retention of the truth as blamable as the flow of garrulity with which we have sometimes seen a court overwhelmed, we recommend the witness to steer a middle course, first answering patiently, distinctly, and tersely, the questions put by the Counsel on both sides, the Court and the jury; and if none of these elicit the whole truth, and any material point remains to be disclosed, the presiding judge will always admit and gratefully receive the additions or explanations which may be necessary to the ends of justice.

The witness is next to consider, what is and what is not evidence: we cannot follow this subject in all its bearings, nor indeed is it here necessary, a few points must however be remembered; and first of notes; these if taken upon the spot or immediately after a transaction, may be used by the witness to refresh his memory; and as to dates, numbers, or quantities, it is generally expedient to have them; the notes should be original, not copies; if there be any point in them which the witness does not recollect except that he finds it there, such point is not evidence, for the notes are only to assist recollection not to convey information.

The witness must relate only that which he himself has seen or observed; that which he has heard from others is not evidence as coming from him; except indeed where some expressions or declarations of the parties concerned have become a part of the *res gesta*.

but the declarations of a dying man are evidence when related by a third person on oath, though the party making them was not sworn, for the law presumes that the solemnity of the occasion may dispense with the form, and that a man, trembling on the brink of eternity, will never risk salvation by falsehood. To give this weight to a declaration, it is necessary that the party should believe himself to be dying; Mr. Justice *Bailey*, is reported to have said, that the party must be satisfied that recovery was impossible: we think the reporter must have been mistaken; for such a rule would exclude all such declarations; hope is the latest faculty of the human mind. "I am better," has not unfrequently been the last articulation of expiring nature.

How far and in what cases opinion is evidence, is next to be considered; in ordinary matters where, from a statement of facts, the jury, in the exercise of sound and ordinary understanding, are capable of arriving at a just conclusion, the opinion of a witness is neither requisite or admissible; but in matters of science it is otherwise, provided that he backs his opinion by such reason as may be satisfactory to the understanding of his hearers; and this is the principal qualification of a medical witness, that he make himself *intelligible to ordinary comprehensions.*

No man is bound to give any evidence by which he may render himself liable to any criminal prosecution. At the Old Bailey Sessions, in June, 1821, Mr. *George Patmore* was tried for the murder of *John Scott*, in a duel. Mr. *Pettigrew*, (a surgeon,) was the first witness called.

Mr. Justice *Bailey*.—Mr. *Pettigrew*, I think it necessary to give you this caution, if you think the evidence, which you are about to give likely to expose

you to a criminal prosecution, you are not bound to give it.

Mr. *Pettigrew*. My Lord, I am not competent to form any opinion of my legal guilt; I have not taken the part of principal or second. The part which I have taken was merely to exercise my professional duty; in that I do not think there is any moral guilt.

Mr. Justice *Bailey*. If you went (knowing a duel was to take place) for the purpose of giving surgical assistance, I apprehend that you are liable to a criminal prosecution.

Mr. *Pettigrew*. Then, my Lord, I must decline answering any questions.

Mr. Justice *Bailey*. I recollect having seen a surgeon of eminence tried in this court, on a similar occasion.

Neither Mr. *Pettigrew*, nor his assistant, were examined.

Dr. *Darling*, who had attended the deceased after he had received his wound, deposed that he heard Mr. *Scott* on his death bed say——

Mr. Justice *Bailey*. Did Mr. *Scott* at that time think himself in danger: did he give up all hopes of recovery?

Dr. *Darling*. No. To the last he entertained hopes of recovery.

Mr. Justice *Bailey*. The declaration made by a dying man cannot be received as evidence, unless the party at the time of making it were satisfied that recovery was impossible.

We have before noticed the limitation with which we believe this supposed rule must be taken.

With the exception of dying declarations, all evidence in criminal matters, must be upon oath, therefore the affirmation of a quaker cannot be

received on a coroners inquest.(*a*) In the too celebrated case of the Oldham Inquest on the body of John Lees, Mr. *Earnshaw*, a quaker surgeon,(*b*) who had attended the deceased, though much urged refused to be sworn, and his testimony was consequently rejected; a paper was subsequently delivered to the jury, containing the matter of his observation; this was very properly resented by the Coroner, as an illegal attempt to influence the jury, who by their oaths were bound to admit no information which wanted that legal sanction. While we were writing this article we were surprised to find that a Coroner for the County of Surry had permitted the letter of a Physician to be read to the jury, as evidence that a person deceased was of unsound mind; and on this evidence, (for we can scarcely suppose that the servants deposition to rheumatic head-aches, was allowed to weigh,) a verdict of insanity was returned: we shall have subsequent occasion to comment on this *mala miserecordia.*

(*a*) It has been decided in civil cases, that declarations even of a dying man, made *post litem motam* are not admissible as evidence; this appears to be rather a fine drawn distinction, and if it were extended to criminal matters would be productive of some mischief; for then if a man died of his wounds, after the assailant had been committed or indicted, declarations made under circumstances of equal solemnity and religious force, would be evidence or not according to the hour of the day at which they were uttered. The distinction is not taken in the law of Scotland, as appears by the stress laid by Lord Mansfield, on such declarations in his judgment in the Douglas cause. 2 Collec. Jurid.

(*b*) Baptist or quaker surgeons should therefore, in cases likely to come before the criminal tribunals, take care to have persons associated with them who may supply their places in Court; we do not urge them to be sworn, as we should place less reliance on an oath taken in breach of conscientious scruples, than on the affirmation which is rejected in obedience to the forms of law.

As a quaker if living could not be heard as a witness in a criminal case, query his declarations when dying, does the solemnity of the occasion dispense with the form of an oath?

OF MARRIAGE.

As both our civil and religious institutions consider the matrimonial union as a necessary preliminary (*a*) to the legal propagation of our species, this as far as it is connected with medical science, will form the first subject of enquiry, in which we are to investigate who are and who are not capable of contracting this relation. (*b*) And this being a point originally of ecclesiastical jurisdiction, we shall in its examination, follow the order of the civilians, so far as it is necessary to our purpose; we shall accordingly consider the capacity of persons to contract marriage in respect of age, mental capacity, and corporeal fitness. Another question arises from consanguinity; and this though neither founded in nor determinable by medical evidence, may deserve a moment's attention, since it is evident that the prohibition of marriage to certain degrees of kindred, though it may not have been suggested by physiological reasoning, is well warranted by it. Experience demonstrates both in the human and brute creation,(*c*) that a race conti-

(*a*) For the medical dangers and advantages of celibacy and marriage, the reader, if fond of such speculations, may consult *Mahon, vol.* 3, *p.* 43, 80.

(*b*) Œtas plena, or full age, regularly is one and twenty, *Co. Litt* 79. 103. 1 *Hale Pl. c.* 17. The Roman law makes it twenty-five, *Institut. lib.* 1. *tit.* 23. *De Curatoribus. Dig. lib.* 4. *tit.* 4. *De Minoribus. Taylor's Civil Law*, 255. 256. In France it was thirty for males. *Potier.* In Holland 25.

(*c*) Sir John Sebright informs us, that if a flock of sheep, in which there is any defect, are permitted to breed *in and in*, the defect will gradually increase among them; and Colonel Humphries, by selecting for breeding a marked variety, has succeeded in procuring a flock, all of them with deformed bones: upon these curious facts Dr. Adams makes the following remarks: "If the same causes operate in man, may

nually bred through the same blood without admixture of a foreign stock, becomes small, weak, and degenerate; this is a fact too well known to the agriculturist in breeding cattle to require further observation. And it is fatally displayed in the royal and noble families of some foreign countries, whose policy has been supposed to require frequent intermarriages, and whose princes and nobles are thence distinguished from their countrymen by their animal, and frequently by their mental inferiority. Those who have travelled in the south of Europe will not be at a loss for examples in elucidation of this principle.

Many questions may arise on the first point; for, though the Act of the 26th of *George* 2. *cap.* 33. commonly called the Marriage Act, has fixed the age of twenty-one years (*a*) as the period in both sexes before which this contract cannot legally take effect by the mere act of the parties. Other points may still arise as to the age at which marriage may take place, the statuable precautions of banns or licence having been complied with.

According to the canon law and the doctrines of precontracts (now exploded) (*b*) or rather from the

we not impute to them many endemic peculiarities found in certain sequestered districts, which have hitherto been imputed to the water, and other localities? and may we not trace a provision against such a deterioration of the race, in that revealed law, by which any sexual intercourse between near relations is forbidden, on pain of death?"

(*a*) If either of the parties be under the age of twenty-one, they cannot by their own consent alone contract marriage; they must have either an express consent in case of licence, or an implied consent by the banns not having been forbidden; but as banns may be and frequently are improperly published in churches far distant from the actual residence of the parties, their parents, or guardians, this precaution of the legislature offers but a precarious safeguard against clandestine marriages.

(*b*) 32 *Hen* 8. *c.* 38. in part repealed by 2 & 3 *Ed.* 6. *c.* 23. but query how far revived by 26 *Geo.* 2. *c.* 33. See also 1 & 2 *Ph. & M. c.* 8. §. 20: and 1 *Eliz. c.* 1. §. 11.

abuse of both, infants of the most tender age were formerly betrothed to each other; and this precontract they were considered as bound to complete and perform when they should arrive at a sufficient age; the civil law indeed says, (*a*) "though spousals are "not limited to any age, yet infancy is not esteemed in "the calculation: *id est si non sint minores quam septem annis*" (*b*). Our law however appears, and with good reason, to have fixed upon the supposed age of puberty, fourteen for boys, and twelve for girls, as the earliest period at which marriage should be contracted. Yet even these relative ages, though somewhat too tender either for public policy or domestic happiness, are not invariably the times of puberty; in some instances it is anticipated, in many delayed. If therefore the law of England, in this as in most other matters of Ecclesiastical jurisdiction, follows the Canon law, which "pays a greater regard to "the constitution than the age of the parties; for if "they are *habiles ad matrimonium* it is a good mar-"riage, whatever their age may be," it becomes an important medical question to consider who are and who are not *habiles ad matrimonium* in respect of nonage.

(*a*) From the age of seven to the age of twelve, as to the woman, and fourteen as to the man, they cannot contract marriage *de præsenti*, but only *de futuro*. *Swinb. s.* 7.

(*b*) As to matrimonial contracts, the full age of consent in males is fourteen years, and of females, twelve; till that age they are said to be *impuberes*, and are not bound by matrimonial contracts; and with this also our law agrees; 1 *Hale Pl.* 17. *Instit. Lib.* 1. *tit.* 10. *de nuptiis. Dig. Lib.* 23. *lit.* 2. *de ritu nuptiarum Co. Litt.* 104. The statute of Merton, 20. *Hen.* 3. *c.* 6 (*Co. Litt.* 30). inflicts the loss of wardship and its benefits on such Lo as shall marry their wards within the age of fourteen years, *et talis ætatis quod matrimonio consentire non possit.* Yet a widow who had been married at seven, and at nine years old survived her husband, was held entitled to dower. *Co. Litt.* 33.

It is equally, or perhaps more important, that the parties be *habiles ad consensus*, in respect of mental capacity; for though in an old case *Style* and *West*, 3 *James* 1. *Roll. Ab.* 357, it was held that an idiot *a nativitate*, might consent to marriage (*a*), by later resolutions it has been determined otherwise, because consent is necessary to marriage, and idiots are not capable of consenting to any thing, so also of a lunatic, unless the marriage was in a lucid interval. But as it may be difficult to prove the exact state of the party's mind at the actual celebration of the nuptials, therefore the statute 15 *Geo.* 2. *c.* 30. has provided that the marriage of lunatics and persons under phrenzies, (if found (*b*) lunatics under a commission, or committed to trustees by any Act of Parliament) before they are declared of sound mind by the Lord Chancellor or the majority of such trustees, shall be totally void. 2 *Burn. Eccl. Law* 416. 1 *Bl. Com.* 439. *Collinson on Lunatics*, 554.

Persons deaf and dumb may contract marriage, for they can give their consent by signs: 2 *Burn. Eccl. Law*, 415. *Swinb. s.* 15. 3 *Potier*, 165. (*c*) but it is essential, that they should be competent in all other respects, for there must always be a *prima facie* suspicion that a person born deaf and dumb, by absence of the ordinary means of instruction, must be of imperfect capacity. (*d*)

(*a*) This case was cited in argument in *Manby v. Scott. Siderf. p.* 112. but it was allowed that the older writers *Bracton*, *l.* 5. 421. and *Fleta*, 434, 58, had held the contrary, and so does the law of the present day. See *Co Litt.* 30. 80: *Brouwer de jure Connubiorum.*

(*b*) 15 *Geo.* 2. *c.* 30. *Co. Litt.* 80. *n.*

(*c*) Statutes. 32 *Hen.* 8. *c.* 38: 2 & 3 *Ed.* 6. *c.* 21: 5 & 6 *Ed.* 6. *c.* 12: 7 & 8 *Wil.* 3. *c.* 35: 10 *Ann. c.* 19. 26 *G.* 2. *c.* 33.

(*d*) For further authorities see 4 *Bacon Abr.* 523. 15 *Viner Abr.* 252. *Rolle's Abr. tit. Bastard.* 356.

The third consideration is whether the parties are *habiles ad procreandos liberos* in respect of corporeal ability, for that being the ultimate use and intention of marriage, the contract cannot be good unless the parties are in the condition of performing it; (*a*) except indeed where the incapacity arises from old age; *volenti non fit injuria*, and though neither the law of the land, nor the law of nature has, as far as it is known to us, prescribed any well-defined limit to the generative capacity, (*b*) yet after a certain period it may at least be so far doubtful as to create an implied waiver between the contracting parties. (*c*)

Some foreign jurists and schoolmen have maintained, that the institution being solely *ad procreandos liberos*, it is a profanation of the rite to celebrate it between parties incapable; (*d*) but this doctrine is

(*a*) "*De contracti matrimonii valore, per Sobolis necessariam judicatur.*"—*Hebenstreit Anthropolog: Forens. p.* 618.

(*b*) Old *Parr*, who lived to the age of 152, did penance at 105, for lying with *Katharine Milton*, and getting her with child. He married his second wife in his 122d year.

(*c*) The Romans interdicted marriages of extreme inequality in respect of age, upon public policy; their law likewise restrained it between men above 60 and women turned 50, because at these ages procreation was improbable.

The Athenian laws are said once to have decreed that Males should not marry till they were past 35 years of age. ARISTOTLE (*Polit. lib.* vii. *c.* xvi.) thought 37 the proper age; PLATO fixes 30, in which opinion HESIOD coincides. With respect to Females, the old Athenian laws allowed them to marry at 26; ARISTOTLE at 18, and HESIOD at 15. LYCURGUS approved a marriage between men of 37, and women of 17; the principal object of which was, says ZENOPHON (*De Republ. Lacedæm.*) to insure that perfect maturity, and complete sexual vigour which he considered so eminently essential for the propagation of the human species. ARISTOTLE wished the husband to be always 20 years older than his wife, in order that they might both arrive, at the same time, to the period when fertility ceases; and we learn from CÆSAR & TACITUS that the ancient Germans maintained a similar sentiment.

(*d*) In a celebrated German case, an affianced officer, by the misfor-

repelled by our liturgy, which even prescribes the omission of the prayer for procreation where the woman is past the age of childbearing;(*a*) how the priest is to ascertain this point we leave the civilians to determine.

But a much more material question of medico-legal policy arises, as to the marriages of those who are afflicted with some serious hereditary disorder, or predisposition to disorder, (*b*) as *Scrofula*, *Mania*, &c. (*c*)

tune of war, was rendered incapable of performing his contract; the marriage however took place, *uxore sciente et consentiente*, to the great scandal of the more bigoted ecclesiastic authorities who sought to annul it.

(*a*) *Capuron* relates several instances of women of sixty and upwards who have borne children. *Pliny* says that *Cornelia*, of the family of the *Scipios*, bore a child at sixty, who was called *Volusius Saturninus*. *Marsa*, a physician of Venice, records a similar instance; *De la Mothe*, another at sixty-one; and there is in the third volume of the Memoirs of the Academy, an account of a litigation on the presumption that a woman of sixty-eight could not bear a child. We shall treat this subject very fully under the head of Physiological Illustrations.

(*b*) To those who are anxious to pursue the subtleties of this curious question, the following references may be acceptable—Mercatus De *Morbis Hereditariis*, a treatise published in the beginning of the 17th century; Stahl's *Theoria Medica Vera*, published at Halle, in 1737, p. 377. There are besides in the collection of Dissertations published by Stahl in 1707, several passages which refer to the subject of Hereditary Diseases, and an Inaugural Dissertation, "*De Hereditaria Dispositione ad varios Affectus*," by Burchart; Haller's *Elementa*, vol. 7, article *Similitudo Parentum*; M. Portal, "*Sur la nature et traitement de quelques maladies hereditaires ou de famille*," published in the Memoirs of the French National Institute, and a translation of which may be found in the 21st volume of the London Medical & Physical Journal; it is principally valuable on account of the number of facts and references which it contains; M. Forester, *De Morbis aut Noxis puerorum in vitiatis depravatis que parentibus*. M. Portal mentions this work as one of great merit—certain opinions of Mr. John Hunter, upon the subject are contained in the report of Donellan's trial, *See Appendix*. —The most important work which has been produced in our own times, is that by Dr. Adams, entitled "*A Treatise on the supposed Hereditary Properties of Diseases, containing Remarks on the unfounded Terrors and ill-judged Cautions consequent on such Opinions.*"

(*c*) See the ancient doctrine of disparagement. *Co. Litt.* 80, 81.

in such cases public policy might induce an absolute prohibition, (*a*) but humanity would pause before it added this bann of excommunication to the misfortunes of its object; a middle course might be adopted: Mahon (*b*) says that the Protestant church admits epilepsy as a good cause of divorce, and that *Alberti* has handed down a decision of the faculty of Halle on this subject; we do not know any English case on

(*a*) We are acquainted with but one instance of Legislative interference, relative to hereditary diseases, and that is to be found in the earlier history of our sister kingdom. The following quotation will explain its nature: "Morbo comitiali, amentia, mania, aut simili tabe, quæ "facile in prolem transfunditur, laborantes, intereos ingenti facta in- "dagine inventos, ne genus fæda contagione ab iis qui ex illis prognati, "forent læderetur, castraverunt; mulieres hujusmodi morbornm quavis "tabe leprave infectas procul a virorum consortio ablegaverunt. Quod "si harum aliqua concepisse inveniebatur, simul cum fætu nondum "edito defodiebatur viva—Voraces, manducones supra quam erat hu- "manum, helluonesque, et perpetuæ ebrietati indulgentes aut addictos, "netam fæda monstrain patriæ dedecus supressent flumine mergentes, "prius quantum libuit et cibi et potus vorare ac ingurgitare eis præ- "bentes, miti supplicio exterminarunt."

Scotorum Historiæ a prima Gentis Origine, cum aliarum et rerum et gentium illustratione non vulgari, Libri XIX —HECTORE BOETHIO DEIDONANO *auctore*—Parisiis 1574, lib. 1, p. 12.

The ancient Greeks appear to have entertained a similar opinion, although they did not ground any legislative enactments upon it; thus Plato commends Esculapius for refusing to patch up persons habitually complaining, lest they should beget children as useless as themselves; being persuaded that it was an injury both to the community and to the infirm person himself, that he should continue in the world, even though he were richer than Midas. *De Republ. Lib.* III. Upon the same principle Herodicus is censured by Plato as the inventor of an art of teaching the infirm to regulate their exercise and diet in such a manner as to prolong their lives for many years.

(*b*) *Police Medicale, p.* 91. the author goes on to state, that by an ordinance of the king of Denmark, if the husband or wife have before marriage any secret malady, as leprosy, epilepsy, or other contagious disorder calculated to inspire horror, and does not inform the other of it, the party uninformed may have a divorce p. 92.

point, and very much doubt whether our ecclesiastical courts would admit the principle; unless indeed it were made out, that the disorder constituted a moral impotence, or that one of the parties could not perform the contract but at the risk of life.

FERNELIUS is of opinion that old people beget weak and diseased children, *Senes et Valetudinarii imbecilles filios vitiosa constitutione gignunt.*" PORTAL supports the same opinion, and thinks that the older people are when they have children, the more likely they are to have acquired imbecillity or disease, and to transmit the same to their children, from whom they may become hereditary, (*Portal*, "*Sur la nature et traitement de quelques maladies hereditaires ou de famille*). This is altogether a popular error; what innumerable instances, says Dr. Adams, might be cited, in which the younger branch of a family has revived its splendour, which had been decaying for a succession of ages: the late Mr. Pitt was the youngest son, born when his illustrious father was in the fifty-first year of his age.

OF DIVORCE OR NULLITY.

If either of the parties professing to contract marriage be at the time defective in the points enumerated in the preceding section, it is a good ground of divorce; but to establish such defect, and especially the defect of corporeal ability, the strongest evidence must be adduced, (*a*) not merely on the general maxim that the best possible evidence which the case will allow must always be produced, but also as the particular fact to be proved is or may be contrary to the general order of nature, and therefore requires more than ordinary proof for its establishment: to such points therefore the medical practitioner is required to give his most sedulous attention, first to the question in the abstract, contrasting his own experience with the opinions and traditions which he may find upon the subject, and divesting his mind of all speculative and theoretical doctrines which he does not find supported by well authenticated facts; thus prepared his second object will be an attentive, accurate, and scientific examination of the immediate case in question. The defect may be mental (*b*) or corpo-

(*a*) It must not be on the mere confession of parties, 2 *Burn.* 461. but see *Greenstreet* and *Phillimore's Rep.* Divorce by reason of impotence, 4 *Bacon. Ab.* 534, and cases there, and note, p. 555.

Authorities,—*Panormus*; *Targereau*, *Paris*, 1611; *Sylva Nuptialis*; *Ambrose Parè*, *sixth edit.*; *Sanchez de Matrimonio*; *Journal des Sçavans*, *July*, 1677; *Johannes Saresberiensis in Policratico sive de nugis curialium*; *Rouliard's Capitulaire*; *Antony Hotman's Treatise*. *Bayle* says that the *Divorce propter impotentiam* was first allowed by *Justinian* at the instance of his wife the empress *Theodora*; her life and character (7 *Gibbon's Roman Empire*, p. 64) will best explain the motives of her interference; the Canonists added *propter arctitudinem*, which the empress had naturally omitted.

(*b*) There is some philosophy as well as considerable humour in the arguments of *Louvet* in his celebrated novel, for it is well known that persons of a sedentary and studious habit are seldom excited and easily diverted.

real; thus it may proceed from antipathy to a particular woman, when it has been called *impotentiam* or *maleficium erga hanc*; this was the alleged case of the Earl of Essex, in the time of *James* the 1st; for which see 1 *Harg. St. Tri.* 315: 2 *How. St. Tri.* 786.; and for the very curious argument and narative of *Abbot*, Archbishop of Canterbury, see 10 *Harg. St. Tri. Appendix*, p. 4. How far this case may be depended on, except as a beacon to show us what we ought to avoid, may be exceedingly doubtful. The character of the Lady Essex, afterward infamous as Countess of Somerset for the murder of Sir *Thomas Overbury*, may lead us to suspect every species of imposition and falsehood. The Judges, according to the testimony of their coadjutor the Archbishop, had predetermined to decide in favor of the divorce; no sufficient evidence appears to have been required or received, and the king, making himself at once the advocate and partisan of his unworthy favourite, urged the business with an indecent and arbitrary heat. From the worst of the *Stuarts*, and the pedantic believer in witchcraft (for *maleficium* (*a*) was then used in this sense) such conduct was not extraordinary; in the present day we may boast with confidence that similar interference would be impossible. With these defects, the case of the Earl of Essex can be of little or no use to the medical jurist; and unfortunately we have no other which is reported with sufficient accuracy or authenticity; we say unfortunately, because though there may be much of good policy and correct feeling in the determination of our Civilians to conceal the de-

(*a*) *Maleficium, Majorum Ars. Maleficus, Incantator. Maleficare, Incantare.* 4 *Ducange Gloss.* 363.

tail of such cases from the public eye, (*a*) yet by drawing their line too strictly, they run no inconsiderable risk of totally excluding those lights of science, of which in so dark and intricate a subject they must necessarily stand in need. It is true that the ecclesiastical courts may have the benefit of medical evidence in every case which is brought before them, but this evidence will be necessarily imperfect, unless founded on previous study, and some knowledge of the points, to which the practice of the Court will require the witness to direct his attention. In France, where causes of this kind may perhaps have been more frequent, and where less reserve is used than suits our national character, several cases have been published, for which see the *Collection des Causes celebres*, and *Bayle's Dictionary*, *tit. Quellenec & Parthenai*, with the references there given.

We have stated that the defect of corporeal ability (*b*) may proceed from mental or bodily causes; of the former the instances must be exceedingly rare, and the latter are certainly not numerous: but the reader will find the information which he may require upon this subject in the following physiological illustrations.

(*a*) On the same principle the College of Physicians of Paris would have suppressed the works of *Ambrose Parè*, the celebrated surgeon to three kings; whom, though a Protestant, *Charles* the ninth saved in his own chamber, from the massacre of St. Bartholomew. His work *de Generatione*, was considered too minute in its details, and too explicit in its language, for general inspection.

(*b*) The defect must exist at the time of the marriage; if it ensue subsequently, it is no ground of divorce.

VARIOUS QUESTIONS CONNECTED WITH THE FOREGOING SUBJECTS, ELUCIDATED BY PHYSIOLOGICAL RESEARCHES.

1. OF AGES, ESPECIALLY THAT OF PUBERTY.

As the period of puberty is intimately connected with the subject of Marriage, and as the age of an individual has many other important relations with civil and criminal transactions, we shall take this occasion to consider the several physiological points which the subject necessarily comprehends.

The age of man is estimated, as it was in the days of David, at *three score years and ten*—not more, however, than one in eighty reaches the tottering confines of mortality, and it has been correctly stated, that one half who come into life, leave it again before the expiration of their *eighth* year; of a *thousand* children born in London, *six hundred and fifty* die before the age of *ten*. It has been computed by Herodotus, and acknowledged as correct by our ablest authors on political arithmetic, that three generations of men pass away in a century, and consequently the whole human species cannot be said to divide one with another more than *thirty-four* years of existence. The astonishing longevity of the Antediluvians (*a*) has given rise to much discussion, but neither the researches of the learned, nor the reasonings of the ingenious, have hitherto thrown any light upon the subject; nor is the question of any importance in relation to the objects of the present work; the medical jurist is alone interested in the existing laws

(*a*) See DERHAM'S *Physico-Theology*, vol. 1. p. 260.

of mortality, and in those exceptions which may occur in their general dispensation.

The several ages, or stages of man's existence, have been differently determined, according to the particular views which have suggested the division, especially as they relate to legal or physiological objects; on the present occasion it is to the latter of these that we have more particularly to direct our attention. *Aristotle* marked three grand and obvious divisions in our existence, that of GROWTH—that during which we remain apparently STATIONARY—and that of DECLINE; each of which has been subdivided by subsequent authors, (*a*) so as to constitute seven ages: thus the stage of Growth includes *Infancy*, *Second Infancy*, or *Boyhood (Pueritia)* and *Adolescence;* the stage, during which we appear to remain stationary, consists of *Youth (Juventus)* and *Manhood (Ætas Virilis)*. The last division—DECLINE, embraces *Old Age*, and *Decrepitude*. The philosophers and physicians of Greece were led to adopt several divisions corresponding with their superstitious reliance on the powers of certain numbers; *Varro* divided life into five portions; *Solon* into ten; but Hippocrates, Proclus, and the greater number of the ancient writers acknowledged SEVEN AGES, a division which has been very generally adopted by the poets and philosophers of later times; in proof of the opinion of the former, we may adduce the testimony of Hippocrates, (*b*) who says, εν ανθρωπε φυσει επτα εισιν ωραι, and in confirmation of the truth of our

(*a*) See *Traité de Medicine Légale*, par F. E. FODERE. tom. I. p. 9.

(*b*) In JOHNSON and STEVENS's edition by ISAAC REID, we have a long note upon this passage, in which a quotation is introduced from "*The Treasury of Ancient and Modern Times*," in order to give an account of the Septenary divisions of PROCLUS. According to this Greek philosopher, the life of man is divided into seven ages, over each of which one of the seven planets was supposed to preside. "THE FIRST AGE

remark upon those of the latter, we may remind the reader of the celebrated passage in Shakspeare, (*a*) in which the progress of human life is so beautifully illustrated. The duration of each of these stages has moreover been considered as under the influence of the same mystical numbers, and will generally be found to be a multiple of *seven*, for the ancient physicians were persuaded that every period of seven years effected some material alteration in the human system; thus *Solon*, although he divided life into ten stages, considered each stage as a *Septenary*; (*b*) so with the Canonists there are *six* ages, but the duration of each is *seven years*, or some multiple of that number; thus, INFANTIA from *one* to *seven*; PUERITIA from *seven* to *fourteen*;—ADOLESCENTIA from

is called Infancy, containing the space of foure yeares. THE SECOND AGE continueth ten yeares, untile he attaine to the yeares of fourteene: this age is called Childhood.—THE THIRD AGE consisteth of eight yeares, being named by our auncients Adolescie, or Youth-hood; and it lasteth from fourteene, till two-and-twenty yeares be fully compleate. THE FOURTH AGE paceth on, till a man have accomplished two and fortie yeares, and is tearmed Young Manhood.—THE FIFTH AGE, named Mature Manhood, hath fifteene yeares of continuance, and therefore makes his progress so far as six and fifty yeares. Afterwards in adding twelve to fifty-six, you shall make up sixty-eight yeares, which reach to the end of the SIXT AGE, and is called Old Age.—THE SEAVENTH, and last of these seaven ages, is limited from Sixty-eight yeares, so far as four score and eight, being called weak, declining, and decrepite age. If any man chance to goe beyond this age (which is more admired than noted in many) you shall evidently perceive that he will returne to his first condition of Infancy againe."

(*a*) AS YOU LIKE IT, Act 2. Sc. 7.

(*b*) In every *Septenary*, says Solon, man receives some sensible mutation; thus in the *First* is DEDENTITION, or falling of teeth;—in the *Second*, PUBESCENCE;—in the *Third*, THE BEARD GROWETH;—in the *Fourth*, STRENGTH PREVAILS;—in the *Fifth*, MATURITY OF ISSUE;—in the *Sixth*, MODERATION OF APPETITE;—in the *Seventh*, PRUDENCE.

fourteen to *twenty-eight*; (*a*)--JUVENTUS from *twenty-eight* to *fifty*; (Quere, *Forty-nine?*)—ÆTAS SENILIS from *fifty* to *seventy*;—SENECTUS from Seventy. (*b*)——Before we quit the conceits of the Numerists, we may state that in their notions the number *Nine* was supposed to possess some mystic power in relation to our ages; and for this reason, superstition has attached considerable apprehension to the age of *sixty-three*, in as much as being the multiple of both the numbers so important to our existence, viz. 9×7 (*c*). This period of life has accordingly been anticipated with fear, and passed with exultation; a conceit, which has been perpetuated in our own times, under the imposing title of the *Grand Climacteric of Life*, while its antiquity is shewn by the memorable letter of AUGUSTUS to his nephew CAIUS, in which he encourages him to celebrate his nativity as he had escaped *sixty-three*.

We shall now proceed to consider the SEVEN AGES of man in detail.

INFANCY—*Infantia*—(from *Infari*, not able to speak) commences at birth, and terminates at the *seventh* year. The signs by which the age of an infant may be computed, are derived from its moral as well as physical characters; and as circumstances connected with medico-judicial inquiries may render the problem of importance, we shall proceed to offer some data that may assist its solution. The feebleness and size of the infant; its epidermis yet reddish, and wrinkled; its face covered with down; its head soft, and the *fontanelles* greatly extended;

(*a*) By the Civil Law *Twenty-five.*

(*b*) TAYLOR'S *Civil Law*, 254.

[*c*) Sir WILLIAM BROWN'S *Vulgar Errors.* Folio, 1686. p. 173.

the eye but little sensible to light, and lastly the appearance of the navel, are circumstances which will at once lead the medical practitioner to the conclusion of its not being many days old; while its smiles and tears, its upright posture in the nurses arms, the thickness and whiteness of the skin, the plumpness of its thighs and buttocks, the eagerness with which its eyes seek and follow brilliant objects, its agitation on the occurrence of noisy sounds, and its eager desire for the breast, are occurrences which will, according to the force and degree of each, announce the child's progress towards the *third*, *fourth*, or *fifth* month. The pleasure which it testifies at the sight of its nurse, its jealousies, and other passions, the habit of carrying its fingers and different objects to its mouth, the facility and pleasure with which it chews bread, and the copious discharge of saliva, announce the approach of dentition, and assure us that the infant must be in its seventh month. The progress of dentition will at this period afford some farther data; towards the end of the *seventh* month the middle INCISOR teeth of the inferior jaw perforate the texture of the gums; and soon afterwards the corresponding INCISORS of the upper maxilla make their appearance; then the lateral INCISORS of the inferior, and subsequently those of the superior jaw; about the *twelfth* or *fourteenth* month, sometimes sooner, the first of the MOLARES of the under, then the corresponding teeth of the upper jaw appear; the four CUSPIDATI are usually protruded through the gum the last; thus the CUSPIDATI and the second MOLARES will sometimes appear at the same time, and this is usually between the *twentieth* and *twenty-fifth* month; so that at, or soon after *two years* of age, the twenty temporary

or *milk* teeth (*a*) are to be found in situ. It must however be remembered that the formation and appearance of the *milk* teeth are subject to considerable variety, and there are some examples on record, though very uncommon, of children born with two Incisors in the upper maxilla, but such teeth have been found to be imperfect in their structure, and without fangs, and they have consequently soon been detached; in other cases, children, although enjoying perfect health, have not cut a single tooth until the end of their second year. Nor are the other signs to which we have alluded, as affording indications of the age, to be considered as immutable; the infant may have been more or less retarded, or accelerated in its march of developement by its state of health and vigour, and it deserves remark, that scrophulous and *rickety* children very commonly present an aspect of intellectual precocity, by no means commensurate with their age; and hence the popular notion has arisen, that very intelligent children rarely continue to live. The fact of this premature expansion of the mind is too apparent to be doubted; but philosophers have endeavoured to explain it upon very different principles; the physiologist has sought the cause from some peculiarity in the organization of the body, while the moralist has attempted to account for it by supposing that in consequence of the inability of these subjects to partake of the sports and exercises suitable to their years, they necessarily enjoy more of the instructive society of their parents and preceptors.

PUERITIA—*Second Infancy—Boy-hood.* At about

(*a*) It appears therefore that the *Milk* Teeth are divided into *Eight* INCISORES—(The fore or cutting teeth) *Four* CUSPIDATI (Canine or Eye Teeth) and *Eight* MOLARES (or Grinders).

the age of *Seven* years, *Detentition*, or the shedding of the temporary or milk teeth commonly commences, in order to make room for the adult set; and this event is considered as marking the arrival of the second epoch, and which, in its turn, is terminated at *fourteen* or *fifteen* in boys, and at *twelve* or *thirteen* in girls, by that peculiar change which the constitution undergoes, and which we have hereafter to consider under the head of Puberty. Persons of this second age are called *Pueri*, or *Impuberes*, not being considered as yet in possession of the complete powers of reason, although they may be allowed to possess some faint ideas with regard to the customs and habits of society; their memory is also most clear and comprehensive, but it soon becomes governed by the imagination.

Adolescence or *Puberty*.—This important and tumultuous epoch of our existence commences at about fourteen in males, and at twelve in females, and ends at twenty-one, or later according to constitution, habit, and climate. The body having nearly completed its stature, its powers of growth are directed into other channels; and in the male, the beard begins to sprout; the voice becomes fuller, deeper, and more sonorous; (*a*) the parts of generation acquire the magnitude which they afterwards preserve, and become shaded with hair; the whole volume of the body augments, and at the same time

(*a*) Richerand has clearly shewn that this change of voice depends upon the larynx undergoing an increase in capacity; he observes that in the male, at the time of puberty, the aperture of the glottis augments in the proportion of 5 to 10, in the course of twelve months; that its extent is in fact doubled both in length and breadth: that these changes are less strongly marked in woman, whose glottis only enlarges in the proportion of 5 to 7.—*Elements of Physiology, translated from the French of A. Richerand, by Robert Kerrison, London, p.* 488.

assumes a character so decidedly masculine, as at once to proclaim the sex of the individual in whom it appears; in addition to these general changes, the secretion of the seminal liquor by the testicles commences, and the individual thus irritated by new desires, soon distinguishes the means of gratifying them, and the *life of the species* may be said to commence its existence. Nor are the moral changes which take place less remarkable, or less characteristic of the period of puberty than those which appertain to his physical condition; his mind acquires increased tone, and his manners and habits assume a more manly character; these changes however do not immediately succeed, and we are much inclined to admit with *Zacchias* (*b*) the existence of three gradations in Adolescence, *Incipient* Puberty (at about *fourteen*), Puberty (from *seventeen* to *twenty*), and *Perfect Puberty* (from *twenty* to *twenty-five*). These distinctions are undoubtedly founded in nature, and are admissible both in relation to sexual and intellectual maturity. Important changes likewise occur at this critical age, with respect to the extinction or kindling of disease; in cases of hereditary predisposition, the particular malady will frequently remain dormant until the age of puberty; this is particularly evinced in maniacal affections, (*c*) in consumption, and other scrophulous diseases. The phenomena which attend the accession of puberty in females are not less remarkable than those which we have described as occurring in males; and although there is neither the change of voice, nor the production of hair on the face, so remarkable in the other sex, yet

(*b*) *Quæst: Med: Leg.*—*Q.* 6.

(*c*) ADAMS on *Hereditary Diseases*. HASLAM *on Madness*.

the body enlarges in volume, the breasts swell with exuberance, and the excess of vitality no longer required for general growth, invests her limbs with those rounded and graceful forms, which have so universally constituted the theme of the poet, and the admiration and study of the artist: but the most remarkable change which the female system undergoes at this period is indicated by the commencement of a periodical sanguineous discharge(*a*) from the vessels of the uterus, and which from the monthly interval that it observes has received the name of *Menses*. The period of life at which this change takes place is under the control of various moral and physical circumstances, as climate, temperament of the individual, habits of living, (*b*) &c. In tropical climates puberty

(*a*) A question has arisen whether this discharge be a secretion from the internal surface of the uterus, or pure blood; it is now generally admitted that the former is the true theory of its origin, and it is important for the medical jurist to know that *it does not coagulate*; in the celebrated case of the murder of Mary Ashford, this fact furnished a useful feature in the evidence; and in other cases that might be cited, the medical witness has been thus enabled to discredit the explanation given by a woman, for the appearance of blood. The average quantity in this country is about four ounces, which is generally about four days in flowing, but this of course is liable to great variation. An opinion has prevailed from the most remote antiquity, that there is something peculiarly malignant and unclean in the nature of this discharge. Haller thinks that this belief was brought from Asia into Europe, by the Arabian physicians; that such an idea should have originated in hot countries is not extraordinary, when we consider how rapidly blood runs into putrefaction under such circumstances. In Africa the women are obliged at these periods to separate themselves from society, and to abstain from the performance of their domestic duties, and even to carry about them some mark, by which others may learn to avoid them. The Jews observed the same practice, and the laws of Moses condemned to death the persons who were discovered to have had sexual intercourse during this period. (*Levit. Ch.* 20. *v.* 18.)

(*b*) The use of the bath hastens puberty, as we find in the example of the Turkish women.—The custom of dancing is said to be attended with a similar effect.

takes place at an earlier period than in northern latitudes; in Greece, the Corea, Indostan, and Java, girls begin to menstruate at eight, nine, or ten; in Spain, Sicily, and the Southern part of Europe, at twelve; but advancing to the northern climes, there is a gradual protraction of the time until we come to Lapland, where women do not menstruate till they arrive at a maturer age, and then in small quantities, at long intervals, and sometimes only in summer. (*a*) This difference in the time of life at which puberty takes place, has been ingeniously assigned by *David Hume* as the reason why women in hot climates are almost universally treated as slaves; and why, on the contrary, their influence is so powerful and extensive in colder regions; for in the former, woman may be said to be in the zenith of her beauty while she is yet a child in understanding, and long before her intellect is matured she ceases to be an object of love; but in temperate countries her personal charms and intellectual endowments are simultaneous in their progress to perfection; the united force of her beauty and mental qualities is irresistible, and man voluntarily pays to her the homage which her powers are so well calculated to command (*b*).

There are, moreover, many cases on record (*c*), in

(*a*) LINNÆI *Flora Lapponica.*

(*b*) It has been a question much agitated by the ancients, why females arrive at puberty before males. HIPPOCRATES gives the following as a reason, *propter corporis imbecillitatem id evenit puellis, ut citius quam mares pubescant.* (Lib. de Sept. part. in fin. et in lib. de nat. puer.) ARISTOTLE also entertained a similar opinion. (*De Generat.* animal: cap. 6) and GALEN also adopted it (De Usu part Corp. human).

(*c*) PLINY the Elder, has recorded several histories of children who prematurely arrived at puberty. "It is well known that there be some that naturally are never but a foot and a half high; others again somewhat longer, and to this height they came in three years, which is the

which both males and females have prematurely arrived at the stage of puberty; a most remarkable instance of this precocity is recorded (*a*) by Mr. Anthony White, in the history of Philip Howorth, and the author of the present work can bear testimony to the correctness of the statement, for he had frequent opportunities of seeing him, and of tracing from time to time the constitutional changes which so rapidly succeeded each other in the first two years of his existence. Dr. Wall has presented us with a similar instance of precocity in a female infant, in whom the

full course of their age, and then they die"—PHILEMON HOLLAND, *book* vii. *chap.* 16.—An account is also given by CRATERUS, the brother of king Antigonus, the subject of which history was an *Infant*, a *Young Man*, and an *Old Man*, was married and begat children, and all in the space of *Seven* years! In January, 1747, Dr. MEAD presented to the Royal Society the history of a child born at Willingham near Cambridge, which is recorded in the 43d *Volume of Transactions*, *for the year* 1745. This child was not only remarkable on account of his bulk and height, but also for the *external marks of Puberty*, which were first observed at the age of twelve months; no evidence however is offered in this case of the perfect developement of the genital organs, their external appearance is alone described, without any regard to the state of their functions. In an account published after his death, it appears that he was attacked by a disease resembling *Phthisis Pulmonalis*, and was attended by the late Dr. Heberden, then at Cambridge, of which he died, and after death, says his historian, he had the appearance of a venerable old man.

(*a*) TRANSACTIONS OF THE MEDICO-CHIRURG. SOCIETY, vol. I.

The following are the particulars of the case of PHILIP HOWORTH, as related by Mr. WHITE – He was born in Quebec Mews, Portman Square, on Feb. 21, 1806; his parents are middle aged, and poor, but industrious people; the father being a coachman in a gentleman's service, and the mother employed in nursing and rearing a family of ten children, of which Philip is the ninth: the father is a healthy and muscular man, the mother a middle sized woman, and rather delicate; the rest of the children are of the ordinary stature and appearance. During the mother's pregnancy with Philip, (which continued the usual length of time) nothing occurred worthy of remark. At the birth, the head of the child was covered with a profusion of hair of considerable length; the sutures of the cranium were closed, not leaving the slightest vestige of a Fontanelle, and he was at this period considered, in point of size

menstrual flux appeared at the age of nine months (*a*).

Various methods have, at different times, been adopted for determining the age of puberty. One

and appearance, as a large and healthy child; during the first year he was remarkably healthy, and could at about the 12th month run alone; shortly after this period, a very visible alteration took place, his countenance, which, until now, had been marked with health and infant beauty, lost its round and infantile form, and became long, pale, and extremely ugly, as if affected by the ravages of some bodily malady. These appearances seem to have been the preludes of those remarkable changes which quickly succeeded; at this period Nature made a sudden bound to puberty; the penis and testes were observed to increase in size, and a small number of black, curling hairs, were discovered on the pubes: an evident alteration also took place in the tone of the voice, his cries becoming much hoarser, and more interrupted; the peculiar organic changes which have been described as commencing on the completion of his first year continued to be rapidly increased, and the full developement of the sexual organs was attended with signs of returning health; the features assumed a more manly expression, and the rapid and successive growth of the body became the wonder of all who knew him. Mr. White then proceeds to state that part of his history which fell under his own notice; the first appearance of the boy, says he, is very striking, on account of the manly character so strongly impressed upon his countenance; the chin is *without beard*, but the black headed points of steatomatous matter so remarkable in young men previous to the growth of beard, is very apparent. The Axilla is without hair, but the secretion has the peculiar characteristic odour of the Adult; the pubes and scrotum are covered with black curling hair; the penis and testes are as large as has been seen in some adults, the *corpus spongiosum urethræ* having outgrown the *corpora cavernosa*, the penis is curved during erection; the testes are firm and perfect in their appearance, and the chord may be felt very distinctly; the prepuce is easily drawn back over the glans, and the secretion of the *glandulæ odoriferæ* is apparent; the usual brown appearance of the integuments of these parts is also to be observed. "*Minime prætereundum est, quod hic puer virilis manstuprationе gaudet, et semen ita eliminatum perfectum et bene elaboratum se habet.*"

This extraordinary subject is now (1822) fifteen years of age, but no farther change has occurred in his habit; he is therefore like other young men of his age, and attends very industriously to the trade of a shoemaker, to which he is apprenticed.

(*a*) Ibid: vol. 2.

sect of ancient Roman lawyers, called *Cassiani*, fixed it by the state of the body, which *Justinian* and others after him suppose to have been done by a personal examination, at least in the male sex; for as to the female it is pretended that the twelfth year was the only guide; though others allege that the eruption of the menses served instead of it. The *Proculiari*, on the contrary determined the puberty of males by the expiration of the fourteenth year. *Javolenus* pursued a middle course, and made use of both methods. (*a*).

The phenomena of puberty depend, in both sexes, upon the developement of the generative organs; for whenever this is prevented, or only imperfectly produced, a corresponding character is impressed upon the individual, as we see so well exemplified in the appearance of eunuchs (*b*). In females, however, the uterus does not appear to be the essential organ which impresses the sex with its distinctive peculiarities: *Van Helmont* has said "*Propter solum uterum mulier est, id quod est*"——but Dr. *Caillot* has shewn in the

(*a*) Pubertatem autem veteres quidem non solum ex annis sed etiam ex habitu corporis in masculis æstimari volebant. Nostra autem Majestas dignum esse castitate nostrorum temporum existimans, bene putavit: quod in feminis etiam antiquis impudicum esse visum est, id est, inspectionem habitudinis corporis hoc etiam in masculos extendere. Et ideo nostra sancta Constitutione promulgata, pubertatem in masculis post decimum quartum annum completum illico initium accipere disposuimus antiquitatis normam in feminis bene positam, in suo ordine relinquentes ut post duodecim annos completos viri potentes esse credantur. *Inst. lib.* 1. *Tit.* 22. It is singular that the modern Greeks should have retained the delicacy which this law implies; they are perhaps the only nation of Europe in which male chastity is practically ranked among the essential virtues; the surgeons of the Greek Light Infantry might testify to the reluctance with which even the common soldiers submitted to the established inspections.

(*b*) Mahon, *Medicine Legale*, tom. iii. p. 54.

second volume of the *Medical Society of Paris* that a woman may grow up with all the external appearances and attributes of her sex, and yet have no uterus; numerous cases of a similar kind are upon record, to some of which we shall have occasion hereafter to allude: the same facts do not hold good in relation to the *Ovaria*; their developement, like that of the testicles in the male, seems to be absolutely essential to the perfection of the sex. A very interesting case, (*b*) in illustration of this truth, is afforded by Mr. *C. Pears*; in which account all the characters belonging to the female after puberty were absent; her breasts never enlarged, she never menstruated, no hair appeared on the pubes, and she died at the age of twenty-nine; when upon dissection the *Ovaries* were found wanting; the *os tincæ* and uterus had their usual form, but never increased beyond their size in the infant state.

Juventus—*Youth.*—This succeeds to adolesence, and in its turn is replaced by manhood. If the law does not acknowledge this stage of life, it at least tacitly allows it, as being the one best adapted for the vigorous discharge of public duties; it is the age at which the greatest enterprizes have been achieved, and the most brilliant efforts of human genius fulfilled; the developement of the body having been accomplished, its powers are expanded in the production and support of intellectual energies. The action of the arterial system may be said to predominate over every other, and hence the diseases to which man is

(*b*) Philosophical Transactions for 1805, vol. 95, p. 225. See Mahon, *Med. Leg. tom.* ii. *p.* 54. Boerhaave relates the story of a Sow gelder in Spain, who in a fit of passion removed the ovaries of his daughter, and that she in consequence lost all her sexual characters and propensities.

exposed in this stage of his existence are of an acute and inflammatory character. To the common observer his march of life would seem to be arrested, little material change, either of a moral or physical nature, is discernible from the age of twenty-five to thirty-five; and this period may therefore be said to occupy a part of the second great division of Aristotle to which we have alluded (the period of *Perennity.)*

ÆTAS VIRILIS—*Manhood.* Youth passes into manhood by such insensible shades of gradation, that it has been considered as only a continuation of the same stage of perennity; and yet we shall find that the change from one to the other is sufficiently striking to entitle them to distinct places in the scale. Hippocrates and Galen have compared youth to the summer, and manhood to the autumn, thus insinuating that if one be less fervent, it is yet more mature than the other; and this is certainly morally and physiologically true; for although the imagination loses much of its glowing fervour, its dominion is succeeded by that of a maturer judgment; the arterial system no longer predominates over every other, its energies have been reduced, and a juster equipoise established; the diseases, therefore, to which he is liable assume a different aspect, (*a*) and maladies of a chronic character prevail, and thus while in the apparent plenitude of his existence is he fast journeying to his destined goal; (*b*) man never stands still, he is either progressing to the zenith of his strength and vigour, or he is declining from it; in vain shall we attempt to

(*a*) See Sir Henry *Halford's* Paper on the Climacteric Disease. Med. Trans, vol. iv, p. 316.

(*b*) "A proprement parler, nous vieillissons des l'instant que nous commençons à cesser d'être jeunes; ou plutôt les memes causes qui amènent notre dévelopement préparent notre destruction, dès l'instant même de la naissance." *Foderé* Trait de Medicine Legale, tom I, p. 26.

cast our anchor in the stream of life, it will alike carry away those who struggle against it, and those who yield quietly to the force of the current; the panaceas and boasted elixirs, and the many other means which have been proposed to renovate the body, are as chimerical, says Buffon, as the fountain of youth is fabulous.

Senectus—*Old Age.* The system has now undergone a considerable change; its bony framework has acquired increased solidity and density; the vascular system is greatly abridged in the extent and subtlety of its ramifications; the muscles become less irritable, their fatty matter is absorbed, the cellular structure collapses, and the whole volume of the body diminishing.

"— The sixth age shifts
Into the lean and slippered pantaloon;"

The skin also wrinkles, particularly in the forehead and face; the hair turns grey, and afterwards white; all the senses lose their acuteness, the heart and arterial system are diminished in force; while the venous system is in a state of plethora; and hence this stage of life is exposed to diseases of a peculiar cast: the blood-vessels are also liable to ossific depositions, from which apoplexy, and various affections of the heart and other organs, arise; the faculty of reproducing the species ceases long before the natural termination of his existence, although the period at which his organs fail is more precarious and less definite than that at which they commenced their functions.

Woman, in relation to her powers of propagation, may be said to anticipate the male sex in her advancement to old age; at the period of forty-five or fifty, the menstrual discharge ceases, and a change is pro-

duced in the system, called the *turn of life*, which renders women at this age subject to many diseases to which a great number fall victims; but when this dangerous time has passed, their life is even more secure, and a probability exists of its being protracted beyond that of a man of equal age; and although the breasts become flaccid, the fleshy contour of the body diminishes, and the skin forms wrinkles, yet her mental powers retain their full vigour for a considerable period, and her decline into the vale of years is distinguished by a steady cheerfulness which contributes, in no small degree, to divest the path of its thorns, if not to prolong its duration.

Decrepitudo—*Advanced Age.* At length the limbs fail under the burthen which for so many years they had sustained with ease; the exterior muscles gradually return to that state of debility in which they were during infancy, and being unable to sustain a continued state of contraction, relieve themselves by alternate intervals of relaxation, from which arise the tremors (*a*) so characteristic of old persons; upon the same principle is to be explained the *Vacillatio Senilis*, (see-saw) for by these motions the muscles which preserve the perpendicularity of the body, are alternately quiescent, and exerted; and are thus less liable to fatigue or exhaustion. (*b*) The teeth having successively dropped out of their sockets, the alveolar processes

(*a*) This is erroneously supposed to be paralytic, they evidently originate, says Dr. Darwin, from the too quick exhaustion of the lessened quantity of the spirit of animation, for they only exist when the affected muscles are excited into action, as in lifting a glass to the mouth, or in writing, or in keeping the body upright, and cease again, when no voluntary exertion is attempted.

(*b*) Darwin's Zoonomia. Class iii. 2. 1. 2.

are absorbed, and the projection of the lower beyond the upper jaw, imparts a very peculiar physiognomy to the countenance.

"Last scene of all,
That ends this strange eventful history,
Is second childishness, and mere oblivion,
Sans teeth, sans eyes, sans taste, sans everything."

2. OF IMPOTENCE AND STERILITY.

1. *IMPOTENCE.*

IMPOTENCE, or the incapacity of sexual intercourse, and STERILITY, or the inability of procreation, are subjects which frequently become questions in the Ecclesiastical Courts, as relating to the performance and dissolution of the marriage contract; and as medical evidence is generally required upon such occasions, the subjects necessarily present themselves for discussion in the present work.

IMPOTENCE may exist either in the male or female. STERILITY is confined to the female, for if the male be proved capable of accomplishing the act of coition, no farther question can arise as to his virility.

Impotence may be *Absolute* or *Relative*, that is to say, the parties may be incapable of cohabiting with each other, and yet they may each accomplish the venereal congress, and enjoy a fruitful intercourse with others; it may also be *functional* or *organic*, and depend either upon *physical* or *moral* causes; and hence in some cases it may be *temporary*, in others *permanent*, and upon this point the evidence of the medical practitioner will be always very essential. It is therefore important that we should proceed to investigate the subject in its various relations to those different causes.

1. *Organic Causes of Impotence.*

IN MALES.

There was a period in the history of physiology, when the testicles were not considered essential to virility. Aristotle was led to such a conclu-

sion from having observed that a bull was capable of impregnating the female after castration; a fact which depended upon the quantity of semen, retained in the *vesiculæ seminales*, conferring fertility upon a *coitus* which took place immediately after the operation. The true theory of the functions of the testicles having been thus abandoned, it was necessary to substitute some other explanation of their use, and the Naturalist of Stagira has accordingly asserted, that they merely serve as weights to hinder the spermatic vessels from being folded up; an hypothesis which, absurd as it is, has found advocates in the later schools; and in its support we shall find many experiments and cases related by *Marchetti* of Padua. (*a*) *Sabbatier* (*b*) observes, that subjects have been found who have only possessed one testicle, and what is more extraordinary, that there are others who although entirely destitute of these organs, have exhibited the other parts of generation in their natural state; in proof of which *Cabrolio* mentions the case of a soldier addicted to sexual pleasures, in whose body no testicles were found, although the *vesiculæ seminales* were distended with semen. *Scurigio* (*c*) and *Lieutaud* (*d*) refer to the same case; upon which *Portal* (*e*) very justly observes, that the soldier was doubtless furnished with testicles, but which, from their unnatural situation, probably escaped the notice of *Cabrolio*. The extraordinary situations in which the testicles may

(*a*) See *Observations on a Course of Anatomy of* MARCHETTI *at Padua* by Mr. RAY. Phil. Trans. No. 307, p. 2283.

(*b*) *Traite de Anatomie, Tom. iii. p.* 29.

(*c*) *Spermatol. p.* 393.

(*d*) *Histor. Anatom. Med. Tom. ii. p.* 334.

(*e*) *Cours d'Anat. Med. T. v. p.* 429.

be found are fully detailed by *Rinlaender;* (*a*) their absence from the scrotum does not necessarily imply impotence; they are formed in the cavity of the abdomen, and until the sixth month, lie immediately below the kidneys on the fore part of the Psoæ muscles, after which period they gradually descend towards the abdominal ring, through which they generally pass into the scrotum before birth; but it occasionally happens that this descent, in regard to one or both testicles, does not take place until a late period, and in some instances they remain within the cavity of the abdomen during life; in such a case, a question has arisen as to the virility or impotence of the individual so situated, and upon which medical opinion would seem to be still unsettled. *Foderé* states that such persons have even been remarkable for their vigour; for these organs, says he, appear to derive greater power of secretion from the warm bath in which they lie, than when they have descended into their natural situation. Mr. *John Hunter* has given a very different opinion, and one which appears to be more compatible with the sound doctrines of physiology; he believes that when both testicles remain through life in the belly, they are exceedingly imperfect, and incapable of performing the natural functions of these organs; and that it is such imperfection in structure which prevents the disposition for their descent taking place; an opinion in which *Zacchias* and *Riolan* entirely concur. Mr. *Wilson* (*c*) observes that he is acquainted with one case that confirms, and another that would to a certain degree

(*a*) *De Situ Testic. alien.*

(*b*) HAXBY on retention of the testicles until the fourth year. Dunc. Ann. 1799.

(*c*) *Lectures on the Structure and Physiology of the Genital Organs. London,* 1821.

refute this opinion; and this is probably the true state of the question; each case must rest upon its individual merits, and the practitioner, whose opinion is desired upon such an occasion, must carefully inquire into every moral and physical circumstance that can, collaterally, assist his judgment; such as the general appearance, *soprano* voice, and effeminate physiognomy, of the individual, "*frustra enim ætas advenit, si testes defuerint; manebit enim etiam virili ætate fœminæ similis.*" (*a*) But the absence of the testicles in the scrotum may depend upon other and less equivocal circumstances, they may have been removed by excision (*Eunuchs*), in which case there will be no difficulty in ascertaining the fact by the appearance of the cicatrix: or they may have been actually absorbed by an operation of Nature, after considerable inflammatory action. Mr. John *Hunter* (*b*) has given an account of three cases in which such a result occurred.

It does not appear that *two* testicles are essential to virility, although the Parliament of Paris in 1665 decreed that the matrimonial contract should not be deemed valid unless *two* testicles were evident; it is now generally admitted that persons with only one (*Monorchides*) are fully capable of procreation.

It has occurred to Dr. *Baillie*, (*c*) and other anatomists, to observe the testicles exceedingly small, "I have known," says this distinguished pathologist, "one case in a person of middle age, where each of them was not larger than the extremity of the finger of an adult; this, as appeared from its history, arose from a fault in the original formation, and was at-

(*a*) BOERHAAVE, *in Prof. Institut. Med. T. v. p.* 239.
(*b*) *Treatise on the Venereal Disease.*
(*c*) *Morbid Anatomy, Edit. v, p.* 371.

tended with a total want of the natural propensities." Mr. *Wilson*, (*a*) on the other hand, relates a case that would induce us to pause before we pronounced judgment on such an occasion: "I was," says he, "some years ago consulted by a gentleman, on the point of marriage, respecting the propriety of his entering that state, as his penis and testicles very little exceeded in size those of a youth of eight years of age. He was then six and twenty, but never had felt the desire for sexual intercourse until he became acquainted with his intended wife; since that period, he had experienced repeated erections, attended with nocturnal emissions; he married, became the father of a family, and these parts which at six and twenty years of age were so much smaller than usual, at twenty-eight had increased nearly to the usual size of those of an adult man."

The structure of the testicle may be defective; Mr. *John Hunter* has given a representation, (*b*) in his work on the Animal Œconomy, of a case in which the *Epididymis*, instead of passing to a *Vas deferens*, terminated in a cul-de-sac; with such a structure it is evident that the semen cannot be evacuated by the urethra, and that the individual must therefore be incurably impotent.

The structure of these organs may be so destroyed by a bruise, as to occasion impotence. This was formerly the mode adopted in the oriental courts for destroying masculine efficiency in the attendants of the Haram; and it is said that the Algerines, who are unwilling to castrate their horses, have recourse to this process, in order to render them incapable of

(*a*) Lectures on the Genital organs.

(*b*) *Page* 47, *plate* v.

procreation; (*a*) while it is well known that Park-keepers, who have the management of deer, annul the power of generating in bucks, by squeezing the testicles forcibly, and thus destroying their organization and secerning faculty. (*b*) Atrophy and wasting of the testicles may also result from local injury; Dr. *Pihorel* (*c*) relates an interesting case of this kind that occurred to an old soldier.

The body of the testicle is liable to many diseases, by which its structure becomes so changed, and its delicate organization so obliterated, that its secreting powers are entirely lost, such as schirrus, cancer, scrofula, &c. but we are to remember that such affections, if confined to one testicle, are not to be considered as affecting the virility of the party. M. *Larry*, Inspector General of the French Army, informs us that a disease which he calls *Atrophy of the Testicles* seized many of the troops in their return from Egypt; by which these organs became soft to the touch, and gradually diminished in size, without any pain; and it is well known that persons who are afflicted with *Elephantiasis* lose all sexual appetite, and that their genitals waste.

An organic fault similar to that which we have described, as relating to the *Epididymis* of the testicle, sometimes occurs in the *Vesiculæ Seminales*, where instead of entering the urethra, they terminate, after being joined by the *Vasa Deferentia*, in imperforated pouches, or cul-de-sacs, producing incurable impotence. In some cases the spermatic chord becomes varicose, and is followed by loss of power.

(*a*) SHAW'S *Travels, chap.* ii.

(*b*) MALE'S *Juridical Medicine, p.* 257.

(*c*) *Univers. Journ. of Med. Scien. for October* 1811.

The most common malformation connected with the penis is the unnatural situation of the orifice of the urethra; sometimes it opens in the perinæum, occasionally on the dorsum of the penis, and frequently underneath. Mr. *John Hunter* was consulted by a person, who expressed great anxiety to have children, but whose urethra opened into the perineum, he therefore recommended him to inject by means of a syringe, previously warmed, the semen into the vagina, *post coitum*, and during the existence of the orgasmus venereus; the wife, it is said, became pregnant, and Sir E. *Home* observes, that no doubt was entertained by Mr. *Hunter*, or the husband, that the impregnation was entirely the effect of the experiment. It would appear that *emissio seminis in vaginam* is in some cases all that is required for impregnation, and therefore provided the orifice of the urethra be situated in a part of the penis that enters the vagina, any unusual deviation in its direction may not be material; nay farther, in some instances *emissio sine penetratione* has appeared sufficient; (*a*) many cases are recorded in which the hymen was entire at the time of delivery; (*b*) and Dr. *Huxham* (*c*) relates an

(*a*) We wish to be perfectly understood upon this point; no instance of impregnation has ever occurred, where the virile member has not come into actual contact with the Labia; we are not so credulous as to believe with Averroes the case of the woman that conceived in a bath, by attracting the sperm of a man admitted to bathe near her; nor the story of the daughters of Lot, who were impregnated by their sleeping father, or conceived by seminal pollution received at a distance from him.

(*b*) See *The case of a pregnant woman, in whom the hymen was found entire at the time of her being seized with labour pains*, by N. Tucker, M. D. related in Dr. Merriman's *Synopsis of the various kinds of difficult Parturition*, p. 218. See also Zacchiæ *Quest. Med. Leg. vol.* 3, *Tit.* 1, *Q.* 1.—*Instituzioni di Medicina Forens, di* G. Tortosa, vol. 1, p. 61. In the *Bulletin de la Societé Medicale d'Emulation for* 1819, there is a very curious case related by Dr. Champion, of a woman who became pregnant of two children, notwithstanding the presence of the hymen, and in whom *coitus*

instance of pregnancy, where from the preternatural formation of the female genital organs, it was impossible that the act of copulation should ever have been completed. A contracted state of the Prepuce, or *Phymosis*, may so interfere with the discharge of the seminal liquor, as to constitute a cause of impotence, (*Dyspermatismus Præputialis*, Culleni) an operation, however, will always in such cases remove the impediment. (*a*) By some authors the undue dimensions of the penis have been classed under the causes of impotence, but upon this point we would observe that the case already cited from Mr. *Wilson*, p. 201, clearly shews that exception ought not to be taken against mere diminutiveness (*b*) of structure; extraordinary dimensions in length and thickness may certainly prove a cause of *relative* impotence; there are besides certain enlargements in the neighbouring organs which may afford obstacles to the venereal congress, as remarkable obesity, (*c*) scrotal hernia, and hydrocele.

during gestation had taken place *per urethram*. The obstructing membrane perforated with two minute orifices, which had allowed the escape of the menstrual blood, was opened by a crucial incision; about an ounce of bloody mucus was discharged, and the vagina being naturally dilatable, the children were safely delivered. The first *coitus per urethram* is supposed to have taken place subsequently to conception; the canal was so much dilated as to admit the fore-finger with facility. The author relates many other instances of fecundation, *sine penis intromissione*.

(*c*) Phil. Trans. vol. xxxii, p. 408.

(*a*) Bertrand *Opera Chirurg. Tom.* 1, *p.* 253.

(*b*) "Minor Penis de reliquo apte conformatus, et qui in cunnum immissus, rigidus manet, coitum fœcundum omnino exercere valet, licet forte inde minus œstrum venereum in fœmina excitetur." Ludwig *Inst. Med. Leg. p.* 159.

(*c*) Martin, King of Aragon, is stated by historians to have been so corpulent, that neither mechanical contrivances, nor medical treatment could render him any assistance towards the accomplishment of venereal congress.

It has been a question to what extent the penis might be mutilated, without the extinction of virility; repeated instances have occurred where the *glans* has been lost, and yet the individual has retained his faculty of procreation. *Piazzoni* (*a*) relates a case where both the *corpora cavernosa* were destroyed, but as the canal of the urethra was preserved, the person could perform the act of coition without difficulty. *Franck* (*b*) also states an instance in which so considerable a portion of the penis had been carried away by a musket shot, that when the wound healed, the organ remained curved, and yet it proved adequate to the performance of its functions.

A Paralysis affecting the muscles of the penis is not a disease of very rare occurrence; it may depend upon various injuries of the nervous system, and while it remains, it is unnecessary to say that the penis is incapable of performing those sexual functions for which it is constructed, constituting the *Anaphrodisia Paralytica* of Dr. *Cullen*. The continued erection of the penis (*priapism*) is sometimes the result of morbid irritation, (*c*) and occasions a temporary impotence, (the *Dyspermatismus Hypertonicus* of *Cullen*) in consequence of the urethra being so closely shut up by the vigour of the erection, that the powers which throw the semen from the *vesiculæ seminales* are unable to overcome it; gentle evacuations and a slender diet are the best remedies in such a case. Strictures in the urethra, or morbid affections of the prostate glands, may occasion a similar inconvenience, (*Dyspermatismus Urethralis*) and we perhaps

(*a*) *De Partib. Generat inserv. p.* 85.

(*b*) *Delect. Opuse. Medic. tom.* iv, *p.* 313.

(*c*) *Edinb. Essays, vol.* 1, *art.* 35, in which an interesting case of this kind will be found, by Dr. Cockburn.

ought to enumerate extreme costiveness under the same division of the subject.

IN FEMALES.

Adhesion of the Labia may take place in adult women from inflammation; in consequence of which the due secretion of mucus with which these parts are naturally clothed on their internal surface is prevented; or it may arise from the neglect of accidental excoriation. In children the labia frequently cohere in such a manner as to leave no vestige of a passage into the vagina, except at the anterior part for the discharge of urine; the disease, whenever it may occur, is easily and safely removed by the knife. (*a*) In some cases hard labour has given rise to preternatural union of the labia. (*b*)

In cases of ulceration, where due care has not been taken to prevent the surfaces from remaining in contact with each other, the opposite sides have adhered so as to obliterate the passage; Schirrous and steatomatous tumours, (*c*) and polypi may also occupy the cavity of the vagina: in certain cases these may be

(*a*) DENMAN's Midwifery; *Isbrandus de Diemerbroeck* Anatom. Lib. 1, c. 26; *Johannes Nicolaus Pecklinus* Observat. Med. Phys. Lib. 1, c. 25.

(*b*) *Marcellus Donatus*, De Medica Historia Mirab. Lib. vi, cap. 2; *Johannes Riolanus*, Art be medendi, sect. iv, tract 2, c. 1; *Caspar Bauhin*, Theatr. Anatom. lib. 1, c. 39, et De Hermaphroditis, lib. 1, c. 38; *Felix Platerus*, Observat. lib. 1, p. 259-259; *Hildanus* Observat. cent vi, obs. 67; *Riolanus* (Filius) Enchirid. Anatom. lib. ii, c. 37; *Bartholin. Hist. Anatom.* cent ii, hist. 31; *Astruc* on the Diseases of Women, vol. i, p. 126.

(*c*) *Nicolaus Tulpius.* Observat. lib. iii, cap. 33; *Christoph Vælterus.* Schol. Obstetric, part ii, c. 19; *Acta Berolinen*, dec ii, vol. v, p. 85; *Acta Erudit.* Lipsien. ann 1726, Octob. p. 480; *Antonius Benivenius.* De Abditis Morb. et sanet. causis, c. 79; *Johannes Wierus.* Observat. lib. 1.

removed with safety, (*a*) in others some hazard (*b*) will attend the operation. There is sometimes a faulty organization of the vagina itself, it may be too short, and too narrow, (*c*) (*Arctitudo.*) Inversion or Prolapsus is perhaps one of its most common diseases; (*d*) in some rare instances the passage has been obliterated by the *Clitoris*, elongated and enlarged in such a manner as to equal the size of the penis, when it constitutes one of those many peculiarities which have been mistaken for an Hermaphrodite.

The membrane called the *Hymen* has been found of so strong and ligamentous a texture, that it cannot be ruptured, and consequently prevents venereal congress. Ambrose *Paré* relates the case of a young woman, whose hymen was as strong as parchment, which he was obliged to cut with the scissars, before coition could be effected; a more recent case is recorded in which the density of the membrane was so considerable as to require the application of a trocar. (*e*)

With respect to the incompatible locality of the vagina, a malformation which occasionally occurs, it is only necessary to allude; (*f*) the medical judgment

(*a*) *Walter.* Extirpatio Polyporum semper tentanda, atque curatio eventusque felix sunt expectandi.

(*b*) *Edinburgh Essays*, vol. 3, p. 321. *Morgagni*, de Sedibus et causis, epist. 46, advised two women upon such an occasion "ut æquo animo ferrent conjugium male initum potius dissolvi, quam se temere secandas præberent." For a cause of Impotence caused by pressure on the vagina. see *Edinburgh Essays*, vol. 2, p. 343.

(*c*) *Zitman.* Med. Forens. p. 906.

(*d*) *Zacchiæ.* Quæst. Med. Leg. lib. 9, T. 3, Q. 5: *Edinburgh Essays*, vol. 3, p. 317; *Baillie's* Morbid Anatomy, p. 428.

(*e*) *Edinburgh Med. Comm.* vol, ii, part 2, case 4.

(*f*) Instit. di Med. For. di *Tortosa*, vol, 1, p. 46; *Huxham* de Febr. et alia Opusc; *Durieu.* Diction d' Anatom.; *Plenck.* Obstetric, p. 137; *Schener.* De Morbis Intestini Recti, c. iii, sect. 4, *(nota 5)*; *Richter.* Element de Chir, vol. vi, p. 416.

upon it must be directed by the circumstances of each particular case.

Where irritability of the sexual organs exists to such a degree as to occasion insufferable pain at the moment of coition, it must be regarded as a source of impotence. (*a*) It may depend upon various causes; Dr. *Cockburn* (*b*) relates a case of this kind which depended upon internal piles, and which was cured by their removal. Mr. Anthony *White* (*c*) has published three very interesting cases, in which the pain which accompanied the attempt at coitus was so acute, that the women rarely escaped fainting; upon examination he discovered in each of them a small fistulous opening, leading into a sinus of at least two inches and a half in length; the disease was attributed in each instance to a local injury having some years previously occasioned an abscess in those parts; the painful state of the vagina was entirely and permanently cured by dividing the sinus.

2. *Functional Causes of Impotence.*

Repeated intoxication, and vicious indulgences, may so debilitate the constitution in general, and the organs of generation in particular, as to render the debauchee wholly incapable of venereal congress; such impotence however is not to be regarded as permanent; bark, steel, the cold-bath, and above all, a change of habits may restore the patient to the full possession of his powers. There is a peculiar species arising from debility which deserves some notice in

(*a*) *Palliani* Epist. ad Hall, p. 268; *Monteggia.* Inst. Chirurg. p. iii, p. 512.

(*b*) *Edinburgh Medical Essays*, vol. ii, art. 27.

(*c*) *Medical Repository*,

this place; it depends upon a want of consent between the immediate and secondary organs of generation; thus the penis acts without the testicles, and becomes erected when there is no semen to be evacuated; while the testicles secrete too quickly, and an evacuation takes place without any erection of the penis. Under the consideration of constitutional causes, we must not omit to enumerate the occurrence of Epilepsy: there can be little doubt, but that in certain cases, the venereal orgasm has excited an attack of this disease, and prevented the consummation of the act; we are therefore bound to recognise it as an occasional cause of impotence, and Dr. *Cullen* has accordingly considered it as forming a distinct species, under the title of Dyspermatismus *Epilepticus*.

The operation of certain powerful narcotics may be likewise regarded as capable of producing impotence, and cases are recorded where impotence, so occasioned, has become permanent; (*a*) much credulity, however, has existed upon this subject; the anaphrodisiac powers of Camphor were long believed, and is one of the vulgar errors noticed by Sir Thomas *Brown*; (*b*) and Amurath the IVth published an edict which made smoking tobacco a capital offence: a measure which was founded on an opinion that it rendered the people infertile; (*c*) equally gratuitous are the different opinions which have been advanced respecting the aphrodisiac virtues of particular substances; one of which, from the extent to which it is believed, and the authority by which it is countenanced, deserves to be noticed on this occasion; we

(*a*) *Sauvage.* Epist. ad Haller, vol. iii, p. 138; *Stalpart.* ii, 48, from Opium.

(*b*) *Brown's* Vulgar Errors, folio, 1686, p. 173.

(*c*) *Murray's* Apparatus Medicaminum, vol. 1, p. 395.

allude to the popular notion that a fish diet contributes to increase fecundity; and we are not a little surprised to see it sanctioned by such a writer as *Montesquieu*, who observes, that "the regimen of certain monks seems to be wholly repugnant to the intention of their founders." The same belief is very generally entertained in fishing towns, in consequence of the great population of such places, but surely the fact admits of easy explanation upon that general principle in political economy, which no one will attempt to deny, that the number of marriages will be in proportion to the facility with which children can be supported.

A blow on the head may also deprive a man of his virility; a case of this kind is related by *Hennen*, in his Military Surgery, where a soldier became so affected in consequence of a fracture of the occipital bone, by the fragment of a shell.

3. *Moral Causes of Impotence.*

A temporary impotence from certain emotions of the mind is by no means so rare an occurrence as may be supposed; and in times of superstition was generally attributed to the influence of some magical incantation: an opinion which was even maintained by *Zacchias*, *Teichmeyer*, and *Schurigio*, but which it is hardly necessary to add, has been reprobated by *Vogel*, *Cullen*, and all modern authorities. Where this occurs it is often productive of the greatest distress of mind, and has not unfrequently led the unfortunate sufferer to the commission of suicide. Mr. *Hunter* (*a*) has treated this subject with his accustomed sagacity,

(*a*) Treatise on the Venereal Disease, page 201 to 208.

and relates a successful mode of treatment; he prevailed on a person in this situation to promise on his honour to pass six nights in bed with a young woman without attempting to have any connection with her, whatever might be his power or inclination; he afterwards assured *Mr. Hunter* that his resolution had produced such a total alteration in the state of his mind, that the power of connection soon recurred, for instead of going to bed with the fear of inability, he went with fears that he should be possessed with so much desire, and so much power, as to become uneasy to him, which really happened; and having once broken the spell, his mind and powers went on together, and they never relapsed into their former state of imbecillity.

Disgust is also a frequent cause of temporary impotence "Morositas, Contemptus, Iræ, Tristitia, Corporis immundities ac fætor, venerem primario supprimunt." (*a*) The imagination (*b*) is sometimes the cause of temporary impotence, with regard to particular females, as exemplified in the famous case of the *Earl of Essex* and *Lady Frances Howard*, in 1613, in which the marriage was declared void, because the Earl, on his own confession, was impotent with regard to his lady, (*erga hanc*) although he had no defect or impediment, and was able to copulate with other women.

We have thus related the principal causes of Impotence in the sexes; it would be as idle to dwell upon the absurdity of the opinions which attach any weight to astral influence, as it would to refute the idea, that suggested the custom so universally observed by the Scythians, and which is even followed at this day

(*a*) *Baumer*, Medicin. Forens. p, 135.
(*b*) *Montaigne's* Essay on Impotence, chap. xx.

by the natives of some of the South sea islands, of cutting the veins behind the ears, in order to render the males impotent, and the females sterile.

2. *STERILITY.*

Sterility occurs more frequently in the female, than impotence does in the male sex.

Its causes may be distinguished into those that arise from imperfect structure, and into those that entirely depend upon a morbid performance of certain functions.

1. *Organic Causes.*

Absence of the uterus. We have before alluded to this occasional defect; it has sometimes occurred, where the vagina has been wholly impervious. (*a*) *Columbus* dissected a woman who had always complained of great pain *in coitu*, in whom he found the vagina very short, and no uterus at its termination. In *Hufeland's* German Journal (*b*) for May 1819, a case is related of a total deficiency of the uterus, which was discovered by Professor *Stein* during an operation undertaken to remedy a supposed contraction; in this paper the author quotes several analogous cases from the writings of *Engel*, *Schmuker*, and *Theden*.

Imperforated uterus. The os uteri, says Dr. Baillie, has been found to be so contracted as to have its passage in a great measure obliterated; and it has even been known to be closed up by the growth of an ad-

(*a*) Morgagni *De Causis et Sedibus Morborum*, Epist. xlvi.

(*b*) *Journal des Practische Heilkunst.*
Memoires de Academie des Sciences. Ann. 1705. *Histori*, p. 52.

ventitious membrane. The *os tincæ* may be also shut up, either originally, or by cicatrix, in consequence of suppuration, laceration, ulceration, or the like, when the case may be considered as incurable, unless the menstrual discharge force a passage by its pressure, or the introduction of a trochar is able to afford an opening (*a*). Original conformations of this kind seldom admit of any cure, for besides the impervious state of the *os tincæ* it not unfrequently occurs that the uterus itself appears as a solid body, without any cavity in its centre. (*b*) *Morgagni* states that he was consulted by a barren woman, whose vagina was only a third part of the usual length, and that its termination felt firm and fleshy, in which case he advised a dissolution of the marriage. *Marchetti*, on the contrary, has given a case where the vagina ran downwards beyond the internal orifice of the uterus, and terminated in a kind of cul de sac.

Polypus in utero. This may be sometimes removed by exsection; a valuable paper upon this subject by *M. Deguise* is to be found in the *Nouveau Journal de Medicine*, entitled "Observations des Polypes Uterines," in which the author relates many successful cases, and controverts the common opinion, that after the operation for an uterine polypus, the organ is incapable of being impregnated.

Ovaria, absence of, or diseased condition of. There is a specimen in Dr. Hunter's museum, in which one ovarium is wanting; other instances have been recorded in which no vestige of an ovarium could be

(*a*) Dr. Gordon Smith relates a case in which an operation of this kind was performed with success. See his *Principles of Forensic Medicine*, p. 458.

(*b*) Hamilton's *Outlines of Midwifery*, p. 119.

observed on either side. (*a*). The case of this kind published by Mr. *Pears* in the Philosophical Transactions for 1805, we have before described: to this may be added another instance from the writings of *Morgagni*. Instances of diseased ovaria are very common, and may arise from a variety of causes: the *Fallopian tubes* may also, in consequence of peritoneal inflammation, become obliterated, and lose the power of conveying the ovum from the ovarium to the uterus; they may besides be originally defective in structure; Dr. *Baillie* has seen them, without any aperture, or *fimbriated* extremity, terminate in a cul-de-sac. *Morgagni* noticed these tubes in some courtesans having been entirely obliterated by the thickening of their parietes; an evident consequence of the habitual orgasm in which they had been kept by too frequent excitement. *Richerand* on dissecting a subject at La Charité that had been sterile, found the fringed margins, or expanded extremities of the tubes, adhering to the lateral and superior parts of the pelvis, so that it had been impossible for them to perform the motions necessary for fecundation.

2. *Functional Causes.*

These are constitutional debility, leucorrhœa, or an excess, or deficiency of the menstrual discharge. Observation has fully established the fact, that women who do not menstruate cannot conceive; this discharge appears to be essentially necessary for the due and healthy state of the uterus, and Dr. *Denman* (*b*) has also observed that in cases of painful menstruation, a membranous substance is often discharged, and

(*a*) Baillie's *Morbid Anatomy. Phil. Trans. vol.* 91.

(*b*) Denman's *Midwifery.*

that no woman, in the habit of forming such a membrane has been known to conceive, although, he adds, that as it is not uninterruptedly formed at each period of menstruation, the capability of conceiving may exist at any interval of freedom from its formation.

Women who are very corpulent are often barren, for their corpulence either exists as a mark of weakness of the system, or it depends upon a want of activity in the ovaria; thus spayed, or castrated animals generally become fat.

A state of exhaustion of the uterine system, occasioned by frequent and promiscuous intercourse with the other sex, is also a very common cause of barrenness in women, and hence few prostitutes conceive.

In some cases the uterine system is capable of being acted on by the semen of one individual, but not by that of another, for many instances are on record where persons have lived in wedlock without offspring, and being, after divorce, re-married, have each had families.

3. OF THE LEGITIMACY OF CHILDREN.

The validity of Marriage considered on medical grounds being established, the next point to be considered in the same light is the legitimacy and illegitimacy of children, as it may legally affect their rights to succession and property (*a*). On this point the laws of England are most indulgently favourable to the child, for provided "it be born though not begotten in lawful wedlock," (1 *Bl. Com.* 454.) the law will presume its legitimacy, (5 *Rep.* 98.) (*præsumitur pro legitimatione*). But this presumption may be rebutted by evidence. "As if the husband be out of the kingdom of England (or as the law somewhat loosely phrases it, *extra quatuor maria* (*b*) for above *nine* months, so that no access to his wife can be presumed, her issue during that period shall be bastards. (1 *Bl. Com.* 454. 457. *Co. Litt.* 244.) but it was held

(*a*) For the ancient distinctions of natural, spurious, and illegitimate children, see *Taylor's Civil Law*, 270.

(*b*) "It is now held that the husband's being within the four seas, is not conclusive evidence of the legitimacy of the child, and it is left to a Jury to consider whether the husband had access to his wife. See 3 *P. W.* 275. 276; *Pendrell and Pendrell*, 2 *Stra.* 925. So evidence may be given, that the husband's habit of body was such, as to make his having children an impossibility. *Lomax v. Holmden*, 2 *Stra.* 940: see also 1 *Roll. Abr.* 358; 1 *Salk.* 123. But the rule laid down by Lord *Coke*, was once generally received. In *Jenk.* c. 10. pl. 18. it is said "that if "the husband be in Ireland for a year, and the wife in England during "that time has issue, it is a bastard; but it seems otherwise now for "Scotland, both being under one king, and make but one continent "of land." (*Co. Litt.* 244.) and see also *Co. Litt.* 126. *n.* 2. and authorities there quoted. Dr. *Ridley's* view of the civil and ecclesiastical law, and the proceedings in the House of Lords 1811, on the Banbury Peerage, where this point was much discussed."

that if the husband was in England during any part of the time between the conception and the birth (without any reference to the physiological impossibility of the fact) the child would be deemed legitimate (*Rex v. Alberton.* 1 *Raym.* 395.) If the husband be proved castrate the issue are bastards (1 *Ba. Ab.* 310. *Rolle Ab. tit. Bastard*, 356.) But though the husband were divorced from his first wife *causa frigiditatis*, yet his issue by his second were adjudged legitimate, (5 *Rep.* 98.) and this is reasonable, for there may be an *impotentia erga hanc*, from various causes; (*vide post.*) If a man marries a woman who is pregnant, he is generally to be supposed cognisant of the fact, and that he is the father of the child; and the law which regards the time of birth, and not of conception, pronounces it legitimate. But the husband may have been imposed upon, and utterly ignorant (*a*) of his wife's state. A man returning from abroad (to put the case of non access more strongly) marries immediately on his arrival; within four or five months his wife is delivered of a perfect child which lives, shall such child inherit? on the one hand *Præsumitur pro patre quem nuptiæ demonstrant*, on the other, the ordinary course of nature prohibits the supposition that the child can be the offspring of the husband. But see *Rolle Ab. tit. Bastard*, p. 358, where the woman was *grossement enseint* the issue was held *un mulier*, and contrary decisions cited there: see also *Foxcroft's Case*, *Rolle*, 359, & *sec.* 45. So also a man may purposely marry a pregnant woman to disappoint his supposed heir at law; on the other hand a woman may for some purpose of malignity bastardize her off-

(*a*) In *Cuthbert & Brown*, Dublin C.P. 1821, an action was brought against the defendant for deceit, by inducing the plaintiff to marry a woman who was at that time pregnant.

spring, as was the case of *Savage* the poet. (*a*). But none can be legitimate who are born out of wedlock; in which our law differs materially from the Roman or Canon law, and it is somewhat singular that the celebrated (*b*) "*quod nolunt Leges Angliæ mutare*" of the Barons, at the Parliament of Merton, in the 20th of *Henry* the 3d, should have been induced by an attempt on the part of the bishops, (*omnes episcopi magnates*) to introduce this novelty,—that children born before marriage should be legitimised by the subsequent performance of the ceremony between their reputed parents. There may indeed be a few instances where illegitimate children have been legitimised by Act of Parliament (*c*), but though such legislative interference might in some cases of extreme doubt and hardship be deemed not only excusable, but desirable, the present feeling appears to be so strong against such Acts, that the rule of Law may be considered as among the most fixed; yet there are some points which may yet receive considerable elucidation from the studies of the physiologist, and these will resolve themselves into several questions. (*vide post.*)

For the legal authorities on this subject we cannot do better than refer the reader to the very learned note of Mr. *Hargrave* in his valuable edition of *Coke*

(*a*) In 1697 the Countess of Macclesfield declared the child with which she was then pregnant to have been begotten by the Earl of Rivers; in consequence of which confession, without any previous proceeding in the ecclesiastical court, an Act of Parliament was passed annulling the marriage and declaring the child with which she was enseint illegitimate: 9 & 10 *Will.* 3. *c.* 11. private Act.

(*b*) See note 1 *Bl. Com.* p. 456.

(*c*) The children of *John of Gaunt*, Duke of Lancaster, by *Catherine Swinford*, though born in adultery, he being then married, were legitimised by Act of Parliament in 1397; the Duke having married his mistress in the preceding year: see 9 *Froisard's Chron.* 225.

Littleton, and to the same subject in his *Jurisconsult Exercitations*, vol. 3. p. 411; but as these may not be of easy access to our medical readers we have added a full extract of them in the *Appendix*, p. 209.

SUPPOSITITIOUS CHILDREN.

But there is yet another question which may, and in truth frequently does occur; where either a pretended pregnancy is followed by the grosser fraud of imposing a strange child upon the husband, either for the purpose of fixing his affection, or securing his estate; or where a living and healthy child is substituted for one either dead, or too sickly to give reasonable hope of prolonged existence. To this crime our laws assign no specific punishment; the parties can only be indicted for a conspiracy as they might have been for any ordinary misdemeanor; the real punishment falls on the unconscions instrument of the wrong, (*a*) the child, who having been educated in every indulgence that affection and affluence could bestow, finds itself on the exposure of a vindictive menial, without name, hope, or fortune; abandoned by its assumed, it may be unable to trace its real parents, yet the authors of this irreparable wrong have generally escaped even the inadequate punishment to which their crime had subjected them. Those who are curious to inform themselves of the doubts and difficulties with which such questions are entangled, will do well to consult the proceedings in the cele-

(*a*) See the case of Sergison & Sergison. 1820.

brated Douglas case, (*a*) than which few have ever excited so much difference of opinion on the bench, or so much intensity of interest in the public mind. The Anglesea case also, with the several trials connected with it, (*b*) is well worthy of perusal by those whom interest or curiosity may lead to this species of investigation.

We should not have alluded to personal resemblance (*c*) between parents and children, as a mode of proof in these cases, first, as we have doubted whether such proof can be satisfactory, and secondly, as it may not be considered a point of medical evidence; but as to our first doubt, we find that so high an authority as Lord *Mansfield* thought that a family likeness was a material proof that a child was the genuine offspring of the parents through whom he claimed. His lordship in delivering his judgment in the House of Lords on the Douglas cause, is reported to have said, "I have always considered likeness as an argu-"ment of a child's being the son of a parent; and

(*a*) See the Journals of the House of Lords, and also Speeches and arguments &c. of the Lords of Session in Scotland in the *Douglas* trial. *London*, 1767.

(*b*) For the *Annesley* trials, see 17 & 18 *Howel. St. Tri.* and *Harg. St. Tri.*

(*c*) See *Zacchii Questions Med. Leg. lib.* 1. *tit.* 5. *De similitudine et dissimilitudine Natorum.*

Dr. Gregory, the late distinguished Professor of Edinburgh, used to relate to his class, in order to convince them of the resemblance which so generally exists between parents and children, that having been once called to a distant part of Scotland, to visit a rich nobleman, he discovered in the configuration of his nose, an exact resemblance to that of the Grand Chancellor of Scotland, in the reign of *Charles the First*, as represented in his portraits. On taking a walk through the village after dinner, the Doctor recognised the same form of nose in several individuals among the country people; and the nobleman's steward, who accompanied him, informed him that all the persons he had seen were descended from the bastards of the Grand Chancellor.

" the rather, as the distinction between individuals " in the human species is more discernible than other " animals (*a*): a man may survey ten thousand people " before he sees two faces perfectly alike; and in an " army of a hundred thousand men every one may be " known from another. If there should be a likeness " of feature, there may be a discriminancy of voice, a " difference in the gesture, the smile, and various other " characters; whereas a family likeness runs generally " through all these, for in every thing there is a resem- " blance, as of features, size, attitude, and action. And " here it is a question, whether the appellant most re- " sembled his father Sir *John*, or the younger *Sholto* " resembled his mother Lady *Jane*? Many witnesses " have sworn to Mr. *Douglas* being of the same form " and make of body as his father; he has been known " to be the son of Colonel *Stewart*, by persons who " had never seen him before; and is so like his elder " brother, the present Sir *John Stewart*, that except " by their age, it would be hard to distinguish the " one from the other.

" If Sir *John Stewart*, the most artless of mankind, " was actor in the *enlevement* of *Mignon* and *Saury*'s " children, he did in a few days what the acutest " genius could not accomplish for years; he found " two children, the one the finished model of himself, " and the other the exact picture in miniature of Lady " *Jane* (*b*). It seems nature had implanted in the

(*a*) Yet it is said that shepherds and others accustomed to the continual view and contemplation of animals, can discern as strong differences in their forms and features as in the human species, and can distinguish individuals accordingly.

(*b*) It cannot however be denied that most astonishing likenesses sometimes exist between persons utterly unconnected by blood or habit, of this we shall have occasion to speak more fully when treating

" children what is not in the parents; for it appears " in proof that in size, complexion, stature, attitude, " colour of the hair, and eyes, nay in every other " thing, *Mignon* and his wife, and *Saury* and his " spouse were, *toto cælo*, different from and unlike to " Sir *John Stewart* and Lady *Jane Douglas*." *2 Collec. Jurid. p.* 402.

A painter or a sculptor would be more competent to decide a question of this nature than a physician or surgeon, but in their absence there is none on whose testimony we can more safely rely than on the medical witness, whose habits of observing the formation, changes, and peculiarities of the human body, naturally prepare him for such examination.

It has been supposed that an experienced surgeon or midwife might be able to determine whether a newly born infant was the child of a particular woman, both being submitted to their examination; but this mode of proof, fallacious as it must always be, can be of no possible value, unless the investigation take place within a very few days of the supposed delivery; and even then it goes no further than to determine that the birth and delivery have been nearly cotemporaneous, a result not inconsistent with the supposition that the infant is the child of some other woman, and substituted for one dead, unhealthy, or of the sex incapable of succession.

In ordinary cases this early inspection is not likely

of personal Identity. The name of *Douglas* suggests a remarkable instance; Mr. *Frank Douglas*, a well-known man of fashion, was committed for highway robbery on the positive oath of one of the parties plundered, and very narrowly escaped conviction. On the apprehension of the notorious highwayman *Page*, the mystery was explained, the personal resemblance being so great, as to deceive all ordinary observation. See *Part* 3. of *Personal Identity*.

to take place, as in the lifetime of both parents the heir presumptive seldom has a summons to view proceedings; but in the case of a pregnant widow, and especially where there has been a question *de ventre inspiciendo*, it is otherwise, and it then becomes a point of duty in all parties, to obtain the most satisfactory evidence.

A yet more important occasion occurs at the birth of princes; whose entrances and exits are equally subject to question, whenever a disputed succession or an impatient heir give rise to speculation. In England and elsewhere precautions are taken which are as offensive to female delicacy as they are ineffective to the demonstration of truth. The chamber of a pregnant princess, at the moment when quiet is most necessary, is crowded with officers of state and lords of the household; yet we need not remind the reader of all the questions which have, however foolishly, been raised on the supposititious births of princes; for the evidence on the birth of Prince *Charles Edward*, see 12 *Howel. St. Tri.* 123. We need only observe that imposition is best practised by skilful jugglers in a crowd, and without disrespect to those learned and reverend personages, we may doubt whether the Achbishop of Canterbury, or the Lord High Chancellor, can be as effective at an *Accouchement*, as the President of the College of Physicians, or the Master of the College of Surgeons.

TENANT TO THE COURTESEY.

Whether a child, born under certain circumstances, was or was not born alive, is a frequent and important question on the right of the father to the tenant of the courtesey; and as it is naturally con-

nected with the doctrine of gestation, will be partly considered here, though the external signs of incipient and independent vitality will be more fully treated of under the head of Infanticide.

(*a*) "Tenant by the courtesie of England is where "a man taketh a wife seized in fee simple or in fee "taile general, or seized as heir in taile especial, "and hath issue by the same wife, male or female, "born alive (*oyes ou vife*), albeit the issue after dieth "or liveth, yet if the wife dies the husband shall hold "the land during his life by the law of England, and "he is called tenant by the courtesie of England, be-"cause is this used in no other realme but in England "onely. (*b*) And some have said that he shall not "be tenant to the courtesie unless the childe which "he hath by his wife be heard crie (*c*); for by the crie it "proved (*d*) that the child was borne alive. There-

(*a*) *Harg. Coke Lit. p.* 29. *Chap.* 4. *Sec.* 35.

(*b*) This law however prevails both in Scotland & Ireland. *Co. Litt.* 30.

(*c*) But it has been doubted whether the child may not be heard to cry *in utero*; Mr. DERHAM (PHIL. TRANS. vol. 26. p. 485) has given an account of a case of *Vagitus Uterinus*, in which the child is said to have cried for near five weeks before delivery, and what is equally extraordinary, the author professes to credit the story! ETMULLER, in his Dissertation "*De abstruso respirationis humanæ negotio*," c. 9. agrees with DIEMERBROECK in considering such a phecomenon as impossible, and attributes the noise to flatulence. The learned VERZASCHA of Basil gives a long catalogue of cases of *Vagitus Uterinus*, in his third *Observ. Medic.* see also Dr. NEEDHAM's work "*De formato fœtu.*"—CHRISTIAN II. King of Denmark, is said to have cried before he was born. We must, however require very powerful testimony to shake our incredulity upon this subject, and we should then be rather inclined to believe the event with Livy, as a prodigy of Nature, than to consider it, with Derham, as a natural phenomenon.

(*d*) The words *oyes ou vife*, do not warrant this doubt, (see Notes ibid). for "the crying is but a proofe that the child was born alive, and so "is motion, stirring, and the like," or indeed any other evidence to shew that that there was living issue born; such at least appears to be

"fore Quære." (*a*) *Co. Litt.* 29. 30.—Here therefore is another occasion (*b*) where Medical Evidence may be useful or necessary, and it cannot be too

the present law upon the subject, but it may be doubted whether the ancient law did not contemplate not only a living child, but a child born in due course, and therefore likely to live. A Fœtus of a few months when extracted may move, yet such fœtus could not live, and cannot be considered as possessing the principles of independent vitality; so that it should survive its separation from the mother. But when a child can cry, the lungs, which are to supply the circulation, for which till then, the infant had been dependant, are matured for their office, which once commenced the child becomes a separate and independent being. Louis IX. decreed, that in order to give a child the title of inheritance it should have cried—i.e. completely respired.

(*a*) And query also, why was a living child required? Foreign writers made a distinction between vivum and vitale, "Hoc est qui vitam protrahere hæreditatis particeps fieri, eamque ad alios transferre possit." *Ludwig. Ins. Med. For.* p. 42.

(*b*) A cause in illustration of this subject was tried in 1806. Fish *v.* Palmer—and was as follows: *Fish* had a still-born child by his wife, and at her death, as no issue had been born alive, he resigned the estate to his wife's brother-in-law. He was, however, afterwards induced to contest the fact of the child having been born dead. The accoucheur, *Dr. Lyon*, had died before the trial, but it appeared in evidence, that he had declared the child to be living an hour before the delivery, and having directed a warm bath to be prepared, gave the child to the nurse to be immersed in it. It neither cried, nor moved, nor did it shew any signs of life; but two women swore, that while in the hot water, there twice appeared a twitching and tremulous motion of the lips: upon informing *Dr. Lyon* of this, he desired them to blow into its throat, but it never exhibited any other signs of vitality. It was declared by *Drs. Babington* and *Haighton*, that the muscular motion of the lips could not have happened if the vital principle had been quite extinct, and that, therefore, the child was born alive. *Dr. Denman*, however, gave a contrary opinion, and declared that the child was not born alive; and he attempted to establish an important distinction between uterine and extra-uterine life, and considered that the tremulous motion of the lips might arise from some remains of the former. *Foderé* in quoting the case expresses a similar opinion, and pronounces that the slight convulsive motions alluded to, ought not to have been received as evidence of the child's vitality. The Jury, however, found that the child was born alive.

often forced on the attention of practitioners, who at the expiration of many years may be called upon to give testimony, very frequently affecting property of considerable magnitude, that they should on all occasions make sufficient notes of the births which they attend, the circumstances which they have observed, and the number and descriptions of the persons present, who may at a future period be called to corroborate their testimony. We have known an instance where the books of a surgeon attending a then obscure individual, became necessary evidence before the highest tribunal of the land towards determining the right of peerage.

Foreign jurists have doubted whether a child extricated by the Cæsarian operation (*a*) is capable of succession. "Illud autem valde controversum est inter "jurisconsultos, an is qui editus est execto matris "ventre reputetur partus naturalis et legitimus et "successionis capax." (*Caranza de partu naturali et legitimo. p.* 427). And though the question is now decided in the affirmative, some nice points may yet arise, (*b*) if not for the instruction of the jurist at least for the amusement of the casuist.

(*a*) If a woman seized of lands in fee taketh husband, and by him is bigge with childe, and in her travel dieth, and the childe is ripped out of her body alive, yet shall he not be tenant by the curtesie; because the childe was not born during the marriage, nor in the lifetime of the wife, but in the meane time the land descended, and in pleading he must alledge that he had issue during the marriage. *Co. Litt.* 30.

(*b*) If the wife be delivered of a monster, which hath not the shape of mankinde, this is no issue in the law; but although the issue hath some deformity in any part of his body, yet if he hath humane shape this satisfieth. "Hi qui contra formam humani generis converso more pro-"creantur, (ut si mulier monstrosum vel prodigiosum fuerit enixa inter)

Of Monsters and Hermaphrodites, legally considered.

It will be seen by the note from *Co Litt*, quoted under the preceding head, that by the law of England a monster cannot inherit; but the question as to what constitutes a monster is left vague and undetermined. It can seldom have been necessary to agitate this point, since few well attested instances are recorded of any monster, which has materially deviated from the human form, (*a*) having long survived its birth. Some curious instances, however, have occurred of twins who, having become united in the womb by an obvious operation of nature, (*b*) have lived for several years. (*c*) Whether each body

" liberos non computentur. Partus tamen cui natura aliquantulum am-
" pliaverit vel diminuerit non tamen superabundanter, ut si sex digitos
" vel nisi quatuor habuerit, bene debet inter liberos commemorari. Si
" inutilia natura reddidit membra, ut si curvus fuerit aut gibbosus vel
" membra tortuosa habuerit, non tamen est partus monstruosus. Item
" puerorum alii sunt masculi, alii hermaphroditæ. Hermaphrodita tam
" masculo quam fœminæ comparatur secundum prevalescentia sexus in-
" calescentis." *Co. Litt* p. 30.

(*a*) It is scarcely necessary to guard the reader against a belief in the extraordinary instances of monstrosity which are to be found in the periodical collections published during the seventeenth and beginning of the eighteenth century, as in the *Ephemerides*, *Journal des Sçavans*, &c. In one, there is mention made of a child born with a pig's head; in another a woman is delivered of an animal exactly like a pike fish!

(*b*) If two Embryos, contained in the same ovum, be placed back to back, and the surfaces of contact should become inflamed, their mode of union may be easily perceived. If we put the fecundated Ova of a tench, or any other fish into a small vessel, the numerous young not having sufficient space to grow, become jointed to each other, and hence will arise monstrosities in fish.—*Richerand's Physiology.*

(*c*) The most remarkable case of this kind upon record is that related by Buffon (*Hist. Naturelle*, Supplement, tom. ii, p. 410, of a double

should possess separate legal rights would probably be determined by the question whether each possessed the vital organs necessary for a separate existence, if, bating the danger of the operation, they could be corporeally severed. Is it necessary to inform the midwife that he is not authorised to destroy any production however monstrous! (*a*)

The case of Hermaphrodites, or rather of those who may have been deemed such, stands on different grounds; in the physiological illustrations of this subject, the circumstances will be investigated which have led to erroneous conclusions upon this point. In a legal view, it is only necessary to caution the medical attendants to be more careful in the investigation of such cases of doubt, especially where succession to property may depend on the sex of the child. The case of the celebrated *Chevalier D'Eon*, may long serve as a warning to those who would judge of the doubtful sex of a party by any ordinary

infant, joined at the loins and having a common anus, but being in all other respects, morally as well as physically, separate beings. They were born at Tzoni, in Hungary, on the 16th of October 1701, and died in a convent at St. Petersburg, on the 23d of February 1723. Their names were *Hélène* and *Judith*; the one having been attacked with fever, became lethargic and died, upon which the other was seized with convulsions and survived her unhappy partner not more than three minutes.

(*a*) In writing a work which is calculated for the instruction of so wide a range of readers, the authors have felt some difficulty in adjusting their *Zero*; but when they assure their scientific friends that they have heard a provincial attorney advocating the legality of smothering a hydrophobic patient, they trust that they will stand excused, even should their precautions be apparently trivial. Two women were tried at the York Assizes in 1812, for drowning a child, which was born with some mal-formation of the cranium, in consequence of which, it was likely that it could not survive many hours. There did not appear to have been any concealment on the part of the prisoners, who were not aware of the illegality of the act.

and external distinctions; (*a*) while that related in the *causes celèbres* of a female (*b*) who, on account of a *prolapsus uteri*, was pronounced by the sagacious physician at the Hotel Dieu to be an hermaphrodite, is sufficient to shew the futility of any personal examination, unless conducted by a skilful anatomist.

(*a*) See ROEBUCK and HAMERTON, *Cowp* 737, and HAYES *v.* JAQUES, July 1, 1777. There is some account of this latter case in the *Annual Register*, and in the *Gentleman's Magazine*. The author of the present work was present at the anatomical examination of the *Chevalier D'Eon*, which took place in his lodgings in Milman-street, Bedford-row. *Sir Anthony Carlisle* examined the organs of generation, and satisfied all present of the perfect condition of the testicles.

(*b*) By a decree of the magistracy this unfortunate woman was compelled to assume the dress of a male, and to change her name and character, in spite of her own feelings and inclinations; some time, however, after this event, she consulted HELVETIUS, who succeeded in completely curing the disease, and she was in consequence actually restored to her proper sex by a royal ordinance! So much for the value of that *ultra medico-legal* system which has distinguished some of the continental governments.

PHYSIOLOGICAL ILLUSTRATIONS CONNECTED WITH THE FOREGOING SUBJECTS.

The investigation of the preceding subjects necessarily comprehends within its range a series of physiological questions of great importance, the solution of which is essential to the establishment of just and satisfactory conclusions; we therefore now proceed to the consideration of *Conception*: a subject which in relation to Legitimacy, and the various legal questions dependant on it, may be considered as the basis upon which the superstructure rests, or the trunk from which the various ramifications of inquiry must proceed.

Of Conception and Utero-Gestation.

The different theories which the ingenuity of the physiologist has invented for the elucidation of this mysterious and wonderful process, have been supported with so much zeal and argument by the disciples of one school, and disputed with so much warmth and plausibility by those of another, (*a*) that to recite the merits and defects of each system would be a task as laborious in its execution, as it must be unsatisfactory and unprofitable in its results; we shall therefore not attempt to ascend into the scale of causes, but rest on the phenomenon of conception, as an ultimate fact, and confine our researches to the history of its œconomy. The series of changes which constitute the phenomena of conception and gesta-

(*a*) See *An Experimental Inquiry concerning Impregnation, by* John Haighton, M.D. Phil. Trans. for 1797, vol. 87, p. 159.

tion are clearly proved by the experiments of *De Graaf* to originate in the ovaries, and not in the uterus, as former physiologists had supposed. One or more of the vesicles, or *ova*, contained in the former of these organs, no sooner receive the vivifying impression communicated by the *coitus* than they are loosened from their connection, and grasped by the fimbriæ of the Fallopian tube, by whose peristaltic contractions they are, in due time, conveyed into the uterus; the spot in the ovarium from which the ovum has been thus separated, when examined after death, exhibits a slightly lacerated appearance, as if the germ had been detached from a vesicle at the moment of conception, by the rupture of its parietes; to this structure, which from the colour that it assumes has been called by physiologists *corpus luteum*, we shall have frequent occasion to allude during the course of the present inquiry. While these actions are proceeding, the uterus passes through several contemporary changes, in order to prepare it for the reception of the *ovum;* its blood-vessels are increased in size, as seen in slight cases of inflammation; the texture of its internal surface becomes softer, and more spongy, and a white mucus is secreted, which, from the extreme delicacy of its arrangement, has been compared by *Harvey* (*a*) to the web of the spider; it soon, however, assumes a more solid form, becomes vascular, and adheres so as to form a lining to the whole cavity of the uterus, except at the orifices which lead to the Fallopian tubes, and the os uteri. *Dr. William Hunter* considered it as the inner lamina of the uterus cast off, like the *exuviæ* of some animals, after every conception, and he accordingly

(*a*) *De Generatione Animalium.*

called it the *Decidua*, and from the manner of its passing over the ovum, the Decidua *Reflexa.* (*a*) It is not known what exact interval is required for the fœtal primordia to pass through the Fallopian tube, and descend into the cavity of the uterus. *Valisnieri* and *Haller* have never been able to find it distinctly in the latter viscus before the seventeenth day. As the mouth of the pregnant uterus is sealed up with gelatinous matter from the moment of conception, it is, under ordinary circumstances, incapable of allowing any passage for the Catamenia, although exceptions to this law are frequently mentioned by men of science, (*b*) which have probably arisen from the observation of an occasional sanguineous discharge from the vessels of the vagina; and which, says *Burns*, (*c*) are neither regular as to the monthly period, nor of the same quality as that of the menses, and he concludes by remarking, that he has never known any instance where menstruation was perfect and regular during the whole of pregnancy. *Dr. Denman* (*d*), whose authority upon such a question must carry with it very considerable weight, says, "a suppression of the *Menses* is one of the never-failing consequences of conception, at least I have not met with a single instance to the contrary."

Conception is succeeded by many important changes in the constitution, that are indicated by affections of various parts, and which, therefore, to a certain degree, afford *signs* of a woman having con-

(*a*) *Hunter.* Anatomia Uteri Humani Gravidi, Tabulis Illustrata.

(*b*) *Dr. Heberden* relates a case in his *Commentaries*, (chap. 43) of a woman who never ceased to have regular returns of the menstrual discharge, during four pregnancies, quite to the time of her delivery.

(*c*) *Burns'* Midwifery, edit. v. p. 197.

(*d*) *Denman's* Introduction to Midwifery.

ceived; and indeed in the earlier periods of pregnancy, they afford us the only means of judging of the fact; and although they are necessarily ambiguous and uncertain, yet *Dr. Denman* observes, that from the common occurrence of the case, and the particular attention which is paid to it, a faculty of discrimination is acquired which generally prevents error. The medical jurist, however, can never receive such testimony as satisfactory, and it is fortunate that the law rarely requires elucidation upon this point, for in those cases of violent death in which it may be important to ascertain the fact, the light of dissection will assist our decision; and in cases where the plea of pregnancy has been set up, in bar of punishment, it will not avail, unless it be so far advanced as to render our investigation easy and satisfactory. The following symptoms may be said to afford the earliest indications of pregnancy: the disappearance of the catamenia; nauseating sickness, or vomiting, chiefly occurring in the morning, and after meals, and which in some cases is almost coeval with conception, and often resembles sea-sickness, both in the violence of its symptoms, and the obstinacy with which it resists every measure of relief; vertigo and drowsiness; heart-burn and diarrhæa, frequently supervene; the appetite becomes depraved; there is a feverish diathesis; the breasts swell, and the nipples are surrounded by an areola, or brown circle, which is more or less dark according to the complexion of the woman; the countenance becomes altered, the eyes appearing larger, and the mouth wider; and a peculiar sharpness is given to every feature; the temper also becomes unnaturally peevish, and the sleep is broken and disturbed. Subsidence, or falling in of the abdo-

men is recorded by the old French proverb as another sign of pregnancy,

"Dans une ventre plat
Un enfant il y a."

In some instances, particular sympathies occur, and hence tooth-ache has been considered as affording some evidence upon such an occasion. Some midwives have supposed that the appearance of blood drawn from the veins would indicate the state of pregnancy; the blood undoubtedly becomes sizy very shortly after conception, and it differs from that of a person affected with inflammation; "in the latter case," says *Burns*, (*a*) "the surface of the crassamentum is dense, firm, and of a buff colour, and more or less depressed in the centre; but in pregnancy, the surface is not depressed, the coagulum is of a softer texture, of a yellow and more oily appearance."

It is not, however, possible to determine positively, from the inspection of the blood; for a pregnant woman may labour under some local disease, which will impart to it a truly inflammatory character, while, on the other hand, it is possible for the suppression of the menses, if accompanied with a febrile diathesis, to give the crassamentum the same appearance which it would present during pregnancy; and, in truth, the same remark will apply to all those signs to which we have before alluded; and even the swelling of the breasts, upon which so much stress has been laid, as a presumptive sign of pregnancy, cannot be considered unexceptionable, for so great a sympathy subsists between the mammæ and the uterine system, that any disturbance of the latter is not unfrequently attended with an enlargement of the

(*a*) Principles of Midwifery, edit. v.

former: such an occurrence is by no means uncommon in Amenorrhæa. *Belloc*, (*a*) however, has made an observation respecting them which merits our regard; he says, that when a woman has a suppression of the menstrual flux, with the other concomitant signs of pregnancy, we may consider her situation as yet doubtful, because these signs are common both to pregnancy and amenorrhæa; but if about the third month, while the suppression still continues, she suddenly recovers her health, and the incidental circumstances disappear, her appetite, plumpness, and colour returning, nothing can better prove the existence of pregnancy; for had the impaired health, and the accompanying symptoms been the simple effect of suppression, the derangement would have continued, and even increased during the continuance of the cause; to this observation, however, of *Belloc*, we have one important objection to offer: in every case of clandestine pregnancy, (and it is on such occasions that our diagnosis is principally useful) the anxiety and distress of the woman's mind, and her desire to appear as if labouring under some serious complaint, will render her returning health at the period mentioned by *Belloc* as unlikely, or very equivocal; in short, we do but adopt the sentiments of the most experienced midwives, (*b*) when we assert, that it is impossible to arrive at any conclusion beyond that of suspicion; and in delivering a confident opinion upon

(*a*) Cours de Medicine Legale.

(*b*) "Les symptomes qu'on appelle signes rationels de grossesse, ne la caracterisent cependant, que d' une maniere tres incertaine." *Baudelocque*, L'Art de Accouchem. t. 1, p. 180.

"Omnes qui de graviditatis signis scripserunt, quamvis longo artis usu celebres fuerint, unanimi ore fatentur, primes præcipue mensibus signa graviditatis satis incerta esse." (*Van Swieten* Com. in Aphor Boer. tom. vi, p. 331.)

it, the practitioner must take care that he does not compromise his character for skill and knowledge. "Notandum est magna hic prudentia opus esse medico ne facile graviditatem vel affirmet, vel neget; peritissimi enim decepti fuerunt toties; nunquam magis periclitatur fama medici, quam ubi agitur de graviditate determinanda." (*a*) History informs us, says *Capuron*, (*b*) and it is attested by *Ambrose Paré*, *Moriceau*, *Riolan*, *Devaux*, and others, that pregnant women have been brought to the scaffold, after an examination by medical men and matrons, who have declared the absence of pregnancy.

At about the *Fourth* month after conception, that stage of utero-gestation arrives, which enables us, by means of an external examination, to place the fact beyond the reach of conjecture; for at this stage the uterus may be distinctly felt through the integuments of the abdomen; nor are we able before this period to determine the question by any examination *per vaginam*, for the *fundus* uteri is the portion first distended in consequence of conception; while the *cervix*, the only part that we can feel, does not begin to shorten to any appreciable extent, before the period just stated. (*c*)

The following method of examining the uterus, in order to ascertain whether it be gravid, is proposed by *Tortosa*, (*d*) and is well calculated to accomplish the object. The woman, being fasting, and her bowels

(*a*) *Van Swieten* Com. in Boer. tom vi, p. 330.

(*b*) *La Medecine Légale, relative a l' Art des Accouchemens. Par J. Capuron.* A. Paris, 1821. A work which we very strongly recommend to those who are interested in the subject.

(*c*) *Roeder.* Elem. Art. Obst. p. 52.

(*d*) Instituzione di Med. For. vol. 1, p. 179—also *Plenck*, Art. Obst. p. 38.

and bladder having been previously evacuated, should be directed to lie down, with the loins low, and with the head and buttocks elevated; the knees are then to be raised and bent, so as to bring the thighs to the belly, and the heels to the buttocks, by which position the abdominal integuments will be relaxed; the midwife is then to place the hand upon the epigastric region in such a manner that the little finger may rest on the pubes, and the thumb on the navel, and ordering the woman to breathe hard, he must press the belly gently during the expiration: if the uterus be gravid, and is more than three months advanced, he will at this moment feel above the pubes an equal, hard, globular body; and if the same examination be made after the fifth month of gestation, he will probably feel at the same time the motions of the fœtus; but, in cases where no tumour can be distinctly felt, the operator must be very careful not to be deceived by motion, for the action of flatus may mislead him, and even where an obvious enlargement exists, the pulsations of the aorta may lend to it a deceptive motion; this is particularly striking where the ovarium is extensively diseased, or the uterus is distended with tumours, an occurrence which has not unfrequently induced the patient to consider herself pregnant; (*a*) in such a case the ovarium may be felt through the parietes of the abdomen, sometimes pretty high, like the uterus, or like a prominent part of a child, but the round and circumscribed nature of the tumour can never deceive an experienced midwife. *Avenzoar*, however, has left a confession that he was deceived about his own wife, whom he had treated as dropsical, though she had

(*a*) We all remember the extraordinary instance of *Johanna Southcote.*

passed her fourth month of pregnancy. (*a*) We ought also to state that dropsy and utero-gestation may be coexistent, and there are unfortunate cases on record where, on such occasions, women have been sacrificed by the mistaken application of the trocar.

In order to ascertain the exact state of the *os uteri*, an examination must be made *per vaginam*, which may be conveniently effected while the woman remains in the same position, by introducing the fore and middle fingers of the right hand. For the first three months the *os tincæ* feels smooth and even, and its orifice is nearly as small as in the virgin state; when any difference can be perceived, it will consist in the increased length of the projecting tubercle of the uterus, and the shortening of the vagina from the descent of the fundus uteri through the pelvis: this change in the position of the uterus, by which the projecting tubercle appears to be lengthened, and the vagina proportionally shortened, chiefly happens from the third to the fifth month. The following is another mode of examination proposed by the anatomist *Petit*, (*b*) and sanctioned by *Puzoff*, (*c*) and which, with some slight and unimportant difference, coincides with that recommended by *Morand* (*d*) and *Baudelocque*. (*e*) The woman having been placed in the position above described, two fingers are to be introduced into the vagina, so far as to touch the orifice of the uterus; and at the same time, the other

(*a*) In the celebrated case of the *Demoiselle Famin*, published at Berlin and Paris by Valentin, 1768, a charge of pregnancy and child-murder was erroneously instituted, in consequence of an extreme case of Ovarian dropsy.

(*b*) *Dictionaire de Chirur. tom.* 1.

(*c*) *Traité des Accouchemens.*

(*d*) *Trattato dei Parti, p.* 26.

(*e*) *L'Art des Accouchemens.*

hand is to be applied to the abdomen; the operator is then to press internally with his fingers, so as to raise the uterus, and then lower it again by pressing on the abdomen with the other hand; if by such alternate movements a solid resistance is felt, without fluctuation, we may be assured that the uterus is gravid.

As utero-gestation advances, the question of pregnancy becomes, of course, less equivocal; for the progressive increase of the abdominal tumour, from the stretching of the fundus uteri, affords a mark too decisive to be easily mistaken. About the *sixteenth* or *eighteenth* week after conception, the uterus suddenly ascends from the pelvis into the abdomen, a change which is attended with a very peculiar sensation to the woman, and is erroneously called *Quickening*, (*a*) from its having been supposed to arise from the first motions of the fætus in utero, which was imagined at this period to receive the essence of vitality; the law of England still sanctions this hypothesis as a principle by which the degree of criminality (*b*) in cases of *Abortus procuratus* is determined, and according to which the plea of pregnancy in bar of punishment is either admitted or rejected. (*c*)

(*a*) Quick, a word of Saxon origin, signifying *living*.

(*b*) It is difficult to say why the embryon of one or two months should not have the same protection of the law, as that which has been half its time in the womb. *Mahon* expressed a similar opinion—"et voilà le tort immense que font quelquefois les systèmes et les opinions scholastiques!"

(*c*) The only immunity to which pregnant women are entitled by the law of England is the suspension of capital punishment until after delivery. The state of utero-gestation appears in all ages to have secured certain privileges and honours to the female; the Athenians even spared the murderer who took refuge in her dwelling; the ancient kings of Persia made presents of pieces of gold to every woman in this condition; and even the Jews relaxed the rigid ordinations of the Mo-

The physiologist is now satisfied that the sensation has no relation either to the life, or to the motions of the fætus, but is solely attributable to the *sudden* change in the position of the uterus; nor is there any difference between the aboriginal life of the child, and that which it possesses at any period of pregnancy, though there may be an alteration in the proofs of its existence by the enlargement of its size, and the acquisition of greater strength. The feeling of *Quickening* is very different from any that is excited by the subsequent motions of the child; it more nearly resembles that which is occasioned by terror or agitation from any other cause, and is often followed by Syncope, or Hysteria; we shall indeed cease to be surprised at this effect when we consider that from the uterus thus changing its situation, a very considerable pressure is suddenly removed from the Iliac vessels, in consequence of which the blood rushes to the lower extremities, and a temporary exhaustion of the vessels of the brain, and a general loss of balance in the circulating system, are the results. In some women the motion is so obscure as not to occasion any distress, and where the ascent of the uterus is gradual, it is often not felt at all. In the *fifth* month, the abdomen swells like a ball with the skin tense; the fundus uteri now extends about half way between the pubes and umbilicus, and the cervix is sensibly shortened; in the *sixth*, the upper edge of the fundus is a little below the umbilicus; and in the *seventh* the fundus, or superior part of the uterine

saic law, and allowed prohibited viands to the pregnant female, whose delicate and fastidious appetite might make them objects of desire. In Egypt the woman condemned to die, was never executed until after her delivery, and the tribunal of the Areopagus observed a similar regulation, that the innocent infant might not suffer for the crime of its mother.

tumour, advances just above the umbilicus, and the cervix is then nearly three-fourths distended; in the *eighth* it reaches midway between the navel and *scrobiculus cordis* itself, the neck being then entirely distended: thus at full time the uterus occupies all the umbilical and hypogastric regions, although a short time before delivery it subsides to where it was between the *seventh* and *eighth* month.

Of Parturition, or *Delivery*.

The term of utero-gestation is limited by nature to nine calendar months, or *forty weeks*, at the expiration of which, the process of labour usually commences; ingenious theorists have endeavoured to discover the principle of the expulsatory action of the uterus, and to assign the reason of its taking place at a stated period, but after all the subtle ingenuity which has been displayed upon this occasion, it is doubtful whether we are prepared with a better solution of the problem than that furnished by the physiologist in the time of *Avicenna*, who declared that labour came on at the appointed season, *by the command of God*. We shall therefore pass over the question without farther discussion, and proceed to the investigation of those practical parts of the subject, which are highly interesting on account of their numerous and important relations to medical jurisprudence; we propose, therefore, to discuss the following questions in succession:

1. Whether a woman can be delivered during a state of insensibility, and remain unconscious of the event?

2. How far the term of utero-gestation can be shortened, to be compatible with the life of the offspring?

3. Whether to any, and to what probable or possible extent, the natural term of utero-gestation can be protracted?

4. What is the value of those signs by which we seek to establish the fact of a recent delivery?

5. Are there any, and what diseases, whose effects may be mistaken for the traces of a recent delivery?

6. Can we determine by any signs, whether a woman has ever borne a child, although at a period remote from that of the examination?

7. What are the earliest and latest periods of life at which women are capable of child-bearing?

8. What is the possible number of children that may be produced at one birth?

9. Is *Superfœtation* possible, and under what circumstances, and at what period of gestation can a second conception take place?

10. What are the causes of *Abortion?*

11. Under what circumstances, and by what means, is it *morally*, *legally*, and *medically* proper, to induce premature *labour?*

12. What circumstances will justify the *Cæsarean operation*, and of what value is the section of the Symphysis Pubis, or *Sigaultian* operation?

Q. 1. *Whether a woman can be delivered during a state of insensibility, and remain unconscious of the event?*

In certain comatose states of the brain, as those produced by depression of bone, the operation of narcotic substances, or the violence of fever, we must admit the possibility of such an occurrence; *Hippocrates* (*a*) relates the case of a woman who was delivered during a state of insensibility, in the last stage of fever, from which she never recovered, and therefore died unconscious of the event. In the *Causes Celèbres*, (*b*) the case of the *Comtesse de Saint Geran* is recorded, who having been plunged into a profound sleep, by a medicated draught prepared for that purpose, brought forth a son without being in the least conscious of the act that gave it birth; and when she awoke, on the following day, bathed in her blood, and exhausted in strength, and demanded her infant, the artful attendants denied the fact of her delivery. Women have moreover given birth to an offspring in *articulo mortis;* and many instances have occurred where the infant has escaped from the womb during the exertions of the mother to evacuate the contents of the bowels.

Q. 2. *How far the term of Utero-gestation can be shortened, to be compatible with the life (viabilité) of the offspring.*

If this question could be decided by the number of recorded cases, we should be called upon to acknow-

(*a*) De Epidem. Lib. 3.
(*b*) Tome xxvi.

ledge the possibility of the fœtus surviving at extremely early periods; *Capuron* (*a*) relates the case of *Fortunio Liceti*, who, it is said, was born at the end of four months and a half, and that he lived to complete his twenty-fourth year! In the case of *Marechal de Richelieu* the parliament of Paris decreed that the infant at five months possessed that capability of living to the ordinary period of human existence, (*b*) *(viabilité)* which the law of France required for establishing its title of inheritance. The Roman law (*c*) "*de suis et legitimis hœredibus*" establishes, upon the authority of Hippocrates, that an infant may be born *six months and two days* after the term of conception; while a second law, sanctioned also by the same high authority, requires an interval of *seven months* between the conception and delivery; this discrepancy receives explanation from the fact that the ancients fell into many contradictions from indiscriminately using in their calculations lunar and solar months; thus, for instance, *Hippocrates* uses the former in his books "*de Septimestri et Octomestri partu*," while in those *de Alimento*, *de Carnibus*, *de Epidemicis*, the latter uniformly constitute the basis of computation. Physiologists of the present day consider that a fœtus born before the completion of the seventh month has a very slender chance of surviving, although instances have

(*a*) *La Medicine Legale relative a l' art des accouchemens*, *Quest.* "DE LA VIABILITE," p. 152.

(*b*) "Cette distinction et cette interpretation sont evidemment conformes a l'étymologie du mot *viabilité*, qui dérive, non du latin *vita*, vie mais de *via*, voie, carrière, chemin; en sorte que, d'après la grammaire seule, l'enfant pourrait vivre quelques heures, meme quelques jours après sa naissance, comme il vivait dans le sein de sa mère, sans etre pour celà *viable*, ou capable de parcourir la carrière de la vie."—CAPURON, p 195.

(*c*) Cap. iii, §. 12.

occurred where the life has been preserved after a birth still more premature. *Hippocrates* and other ancient physicians entertained a conceit, which has even prevailed in the more modern schools of physic, that an infant could live at *seven*, but rarely or never at *eight* months; it is hardly necessary to observe with *Haller*, that the capability of living in an infant increases in the ratio of its maturity, or in proportion as it advances towards the natural period of delivery; the child, therefore, that is born at the expiration of *eight* months has of necessity a greater aptitude for living than the one which is produced at seven; and nothing could have suggested or upheld a contrary opinion but that overwhelming belief in the harmony and powers of certain numbers with which the philosophers of ancient days were infected, and of which the Pythagorean number SEVEN was deemed the most perfect and efficient, (*a*) as we have before had occasion to remark, while treating of the subject of Ages.

Q. 3. *Whether to any, and to what probable extent, the natural term of Utero-gestation can be protracted?*

Although the period of gestation is usually limited to nine calendar months, or *forty weeks*, (*b*) yet the term does not appear to be so arbitrarily established, but that Nature may occasionally transgress her

(*a*) *Hippocrates* Lib. de Septimest. et Octomest. Part. edit *Halleri*. See also *Aristot.* Metaphys. Lib. 1, c. 5.

(*b*) It is generally computed from a single coitus, or from a fortnight subsequent to the last menstrual period; in some cases the computation has been made from the time of *Quickening*; in either of the two first methods of calculating, *forty* weeks are allowed, in the last about *twenty-two* weeks.

usual law; and, as we have just stated that many circumstances may occur to anticipate delivery, so are we bound to admit that in some instances it may be retarded; in several tolerably well attested cases, the birth appears to have been protracted several weeks beyond the common time of delivery; and *Dr. Hamilton* remarks upon this occasion, that if the character of the woman be unexceptionable, a favourable report should be given for the mother, though the child should not be produced till nearly ten calendar months after the absence or sudden death of her husband. The question is one of the greatest importance in its moral and legal relations, for it may involve the honour and happiness of families, the legitimacy of offspring, and the succession of property. (*a*) We

(*a*) Independent of its obvious importance in determining questions of legitimacy, it may often be important to determine the longest period of utero-gestation, for the purpose of ascertaining a child's right to property. A child *in ventre sa mere* is capable of taking by bequest or devise, even from the earliest period after conception; in which point our civil is more merciful, and more consonant to the course of nature, than our criminal law, which regards only the time of quickening. If therefore *A* bequeath or devise to all the children of *B* living at the time of his death, and *B* six or seven months after his death is delivered of a child, that child was clearly *in esse* at the time of the testator's death, and is entitled to its share; it is equally clear at nine months, provided the child be of its full growth; but after ten it may be made a question whether such child is or is not entitled.

Si home morust feme ad issue nee 40 weekes & 8 jours puis son mort, come sil morust 23 *Marcii* & l'issue est nee 9 *Jan* ensuant, cest issue serra legitimate, car ceo poet estre legittimate par nature, & la ley n'ad limitt ascun certain temps del nestre de legitimate infants *Mich.* 17 *Ja. B. R.* ——————— sur evidence al barr que concern leire dun *Androwes resolve per Curiam*, en quel case *Doctor Paddy* & *Doctor Mumford* deux *Physitians* esteant jure informe le Court, Que per nature tiel issue poet estre legitimate, car ils disont, que lexact temps del nestre dun infant est le 280 jours del conception, scilicet 9 moies & 10 jours apres le conception, accountant ceo *per menses solares scilicet* 30 jours al chescun mois; mes est natural auci si le nestre soit ascun temps del 10 moies

cannot, therefore, feel surprised that it should have occupied so great a portion of the attention of our most able physiologists, and have given origin to considerable controversy. Each side is supported by an equally respectable list of partisans, and we perceive that upon this occasion the two celebrated medico-jurisconsults of France are opposed to each other; *Mahon* having associated his name with those of *Bohn*, *Hebenstreit*, *Astruc*, *Mauriceau*, *Da La Motte*, *Rœderer*, and *Baudelocque*, who reject the belief in *retarded delivery* as impossible, and contrary to the immutable law of nature; while the name of *Foderé* ranges with those who support the contrary opinion, as *Teichmeyer*, *Heister*, *Albert*, *Vallentini*, *Bartholin*, *Haller*, *Antoine Petit*, *Lietaud*, *Vicq d' Azyr*, and *Capuron*, who may boast of the support of *Hippocrates*, *Aristotle*, and *Pliny*.

Pliny tells us that the Prætor *L. Papirius* was declared entitled to succeed an infant born after thirteen months, but he adds, this was *because* no time appeared by law "*quoniam nullum certum tempus pariendi statum videretur.*" We read in Aulus Gellius

scilicet dans 40 semaignes, sont tout un; mes per accident un infant poet estre nee apres les 40 semaignes on devant: Et en le case al barr fuit prove que le feme longe pur choses en vie sa baron, & que le baron morust del plague, issint que il fuit egrote forsque un jour devant son mort, & que le *father in lawe* del feme luy persecute & use ove grand inhumanitie, & cause luy a demurrer en le streete per divers nuits, & que le feme fuit en travell 6 semaignes devant el fuit deliver, mes que ceo fuit interrupt per le dit usage del *sa pere in lawe*, & que el fuit deliver deins 24 heures apres que el fuit receive en un mese & bien use que fuit bon proofe del legittimation, Coment que fuit prove de l'auter parte, que le feme fuit un lewde femme de sa corps. Et sur evidence le Jurie luy trove legitimate. *Nota* que a la triall un *Chamberlaine* un home midwife informe le Court sur son serement, Que il ad conus un feme destre deliver dun infant, & 2 semaignes apres destre deliver deu auter. Et les *Doctors* disont que le nestre est *citius* on *plus tarde* solonque le nutriment que le mere ad purluy. 1 *Rolle Ab.* 156.

of an edict by the Emperor Adrian in favour of a woman of irreproachable character, who was delivered eleven months after the decease of her husband; and the parliament of Paris, in the case of a widow, decided in favour of the legitimacy of an infant born in the fourteenth month of pregnancy. *Bartholin* relates the case of a young woman at Leipsic who was delivered in the sixteenth month; and, if we may credit it, the account would appear to have been as unexceptionable as any case on record, for during her pregnancy she was in custody by order of the magistrates. The civil code of France has placed a limit to our credulity respecting retarded births, and decrees *three hundred* days, or ten months, to be the most distant period at which the legitimacy of a birth shall be allowed. *(a)* Were we called upon to deliver an opinion upon this momentous question, we should certainly consider such a law as rather inclining on the side of mercy, than on that of stern justice. For any farther information upon this question, we must refer the reader to the learned notes of Mr. *Hargrave*, printed in our *Appendix*, *page* 209; but before we quit the subject, we shall notice the opinion of *Joubert*, if it be only for the purpose of animadverting upon its absurdity; he supposes that the duration of gravidity may be influenced by sexual indulgence; supposing that excessive venery will accelerate, while abstinence may so far retard the time of delivery, that it shall not take place until after the expiration of eleven months.

(*a*) By the law of Scotland, a child born *six* months after the marriage of the mother, or *ten* months after the death of the father is considered as legitimate.

Q. 4. *What is the value of those Signs by which we seek to establish the fact of a recent delivery?*

There are circumstances which may induce a woman to conceal the event of parturition, or to simulate a delivery which had never taken place; in either of such cases the importance of medical testimony is sufficiently obvious. In cases of alleged Infanticide the practitioner is always required to examine the supposed mother, and to give his opinion as to the fact of her having been recently delivered: and his report has not only very frequently acquitted the prisoner, but in some cases has rescued the innocent but unfortunate female from the horror and disgrace of a public trial. *Capuron* cites a curious case which we shall relate in this place as well adapted to exemplify the serious importance of medical evidence on such occasions:—A young woman having granted her favours to a lover who had seduced her, under the promise of wedlock, feigned pregnancy in the hope of hastening the celebration of her marriage, but the lover refused to ratify the solemn engagement into which he had entered, and she therefore determined to carry on the imposition, with a view to conciliate his affections, and to secure his future protection and support; for this purpose, after a proper interval had elapsed, she confined herself for several days to her bed-chamber, and having stained her linen and bed with bullock's blood, she openly declared that she had been delivered, and that the infant had been committed to the care of a nurse; the young man, however, notwithstanding this supposed new pledge of affection, remained obdurate, and persisted in his refusal to complete his engagement; in consequence of which all intercourse between the parties ceased,

until after the lapse of two years, when the alleged father claimed his child; in answer to this application the young woman confessed the deception which she had been induced to practise; but the criminal department of the Seine, before whom she was summoned, hesitated in giving credence to her tale; upon which a personal inspection was instituted by *Capuron*, *Maigrier*, and *Louyer Villermay*, in order to decide whether the woman in question had ever been delivered; and as the result of this inspection enabled the professors to decide in the negative, the prisoner was immediately discharged. A similar instance of pretended delivery has recently appeared in a *Berlin Journal*, as having occurred at Sirakovo in the circle of Posen, where a young woman, anxious to fulfil the ardent desire of her husband to have an heir, pretended to have been suddenly and unexpectedly delivered, and stole an infant in order to support the fiction; the case was rendered more atrocious from the real mother having, in consequence of the theft, been subjected to the accusation of infanticide; the fact was, however, happily discovered, and the culprit has been delivered to the punishment due to her crime. Such cases of pretended delivery are by no means so rare as the reader may at first be led to imagine; and the medical practitioner should be on his guard lest he become the dupe of such an imposition. *Dr. Male* (*a*) relates a case which occurred not long since in his own town; a surgeon was called to a pretended labour, when a dead child was presented to him, but there was no placenta; he therefore proceeded immediately to examine the woman, when he found the *os tincæ* in its natural state, nearly closed,

(*a* *Elements of Juridical Medicine*, *edit.* 2, p. 249.

and the vagina so much contracted as not to admit the hand; astonished at this circumstance he went to consult a medical friend; but before any farther steps were taken, it was discovered that he had been imposed upon; the woman, in fact, had never been pregnant, and the dead child was the borrowed offspring of another; it appears that she was induced to practise the artifice to appease the wrath of her husband, who frequently reproached her for her sterility.

The signs from which the judgment of the midwife is to be deduced may be comprised under the following general and particular heads, to each of which we shall successively direct our attention, and endeavour to establish the degree of validity to which they are singly or jointly entitled.

1. The face is pale, the eye sunken, and surrounded by a purplish or dark brown coloured ring; the pulse is full and undulating; the skin soft, supple, rather warmer than ordinary, and covered with a moisture which has a peculiar and somewhat acid odour.
2. The breasts are swelled, are harder than usual, and painful; and, in some cases, lumpy to the touch, and emit, by pressure or suction, a lactiform fluid; the nipples are thicker, and the areola, by which they are surrounded, is widened in extent, and darkened in colour.
3. The abdomen is flaccid, and its skin lies in folds, and is traversed in various directions with shining, reddish, and whitish lines, and light-coloured broken streaks, which especially extend from the groins and the pubes towards the navel.

4. There is an extraordinary swelling and tumefaction of the external parts of generation; sometimes the anterior margin of the perineum is lacerated, or it is very lax, from the distention which it has undergone.
5. The vagina is preternaturally distended; the orifice of the uterus is soft and open, and capable of admitting the point of the finger without difficulty, as if a late discharge had been made from it; the womb itself, not having properly collapsed, and resumed its natural shape and dimensions, may be felt through the parietes of the abdomen, voluminous, firm, and globular, contracting and expanding under the hand, on pressure.
6. A discharge of serous fluid mingled with blood from the vagina, called the *Lochia*, continues from five to thirty-five days after delivery: it differs from the common menstrual flux in being paler, but more particularly in its peculiar and characteristic sour odour; at first this discharge is decidedly sanious, but in a few days it becomes of a much paler and of a brownish, or a dirty green hue, so as to acquire the common term of *green waters*.

In addition to these signs, *Michael Albertus* mentions the hair falling off from the pubes as a sign of delivery; it is hardly necessary to caution the practitioner against relying upon any sign so extremely uncertain and precarious.

Although the period during which the consecutive signs of delivery remain evident, will vary in each case, yet as a general position we must admit with *Zacchias*, (*a*) *Albert*, *Bohn*, *Foderé*, *Mahon*, and *Bel-*

(*a*) Quæst. Med. Leg. Lib. vii, Q. 2.

loc, that after ten or twelve days, they may become too obscure to afford unexceptionable evidence. This conclusion was sanctioned by the *arrêt* of the parliament of Paris, in the case of a woman of Mantes accused of infanticide, who, in consequence of a conference with *Antoine Petit* and *Louis* (*a*) was pronounced innocent, upon the ground of the woman not having been examined as to the fact of her delivery, until after the expiration of a month. The criminal department of the Seine acquitted a woman cook of the name of *Aimée Perdriat*, charged with the perpetration of a similar crime, and of whose guilt no reasonable doubt could be entertained, in consequence of the same defect in the medical testimony. (*b*)

The relative value which each of the signs possesses, will be better appreciated after we have considered the diseases whose effects may resemble them; but as a general principle we are anxious to enforce the necessity of always considering the consecutive signs of parturition collectively, and not individually; under such circumstances the practitioner can never be betrayed into an erroneous conclusion; for, as *Professor Chaussier* has remarked, "*no disease, or affection, besides parturition, can possibly produce the whole series of signs above described.*"

The secretion of milk, upon which such considerable stress has been laid in ancient as well as in modern times, it is now admitted may take place independently of pregnancy, and we are accordingly bound to reject the aphorism of Aristotle, "*Lac habet, ergo pe-*

(*a*) This conference was held in consequence of the writings of Bohn, Professor at Leipsic, and of Albert of Halde Magdebourg, who asserted that after the first week, any personal examination was unsatisfactory.

(*b*) *Traité de Med. Leg. par* Fodere, *tome* 2, *p.* 18; and *Bulletin des Sciences Med. de la Societé Med. d'Emulat. de Paris, tom.* 5, *no.* 29, *p.* 105.

perit." In the *Causes Celèbres* (*a*) there is an account of a girl, who, although a virgin, suckled an infant; and in the *Sloane* collection of manuscripts in the British Museum, a case of a woman is related, who, although she had not borne children for more than twenty years, actually suckled her grand-children, one after the other, at the age of 68! but, what is still more extraordinary, instances have occurred where men have been able to perform this duty. The Bishop of Cork (*b*) has related a case in which a man suckled his child after the loss of his wife; and in the personal narrative of *Humboldt* we have an analogous instance. (*c*)

Q. 5. *Are there any, and what Diseases, whose effects may be mistaken for the traces of a recent delivery?*

Dropsical discharges from the uterus, uterine hæmorrhage, the expulsion of a mole, hydatid, (*d*) or polypus; or the removal of any of those diseases which constitute what has been termed a *false conception*, have been said to occasion effects which simulate the signs of parturition. It must be admitted that there are some signs which are common both to the diseases

(*a*) *Tome* viii.

(*b*) Phil. Trans. A. D. 1741.

(*c*) In *Capuron's* work before cited many other cases are related, p. 126. See also *Burn's* Midwifery, edition 4, p. 451. *Diemerbroeck* Anat. Lib. ii, c. 2. Cours de Medicine Legale, par J. J. *Belloc*. *Blumenbach's* Institutions of Physiology, sect 42. *(Appendix, Note* H.*)*

(*d*) The appearances of the uterus, in the celebrated case of Miss Burns, were explained by Dr. *Carson*, by supposing that a recent expulsion of an hydatid had taken place; we shall have occasion hereafter to dwell at considerable length upon the very extraordinary evidence which was given upon the trial of *Charles Angus, esq. for the murder of Margaret Burns*.

in question, and to the delivery, but there are at the same time others that exclusively indicate the occurrence of the latter; the irruption of fluids from the womb, menorrhagia, and leucorrhæa, may mimic the *lochial* discharge, but they will not remain, nor will they present that characteristic odour by which the latter is so preeminently distinguished; so again, the relaxation of the soft parts may be the consequence of disease as well as of delivery, while the paleness of the visage is the usual concomitant of profuse evacuation; but then the distention of the vagina, and the state of the neck of the uterus, and the absence of all contusions, lacerations, and discolourations will obviate the possibility of deducing any erroneous conclusion from these phenomena; the wrinkles and marks upon the abdomen may certainly follow any considerable change in the reduction of its bulk, whether it be the result of parturition, ascitic discharges, or the absorption of fat; but we may easily disarm such signs of their treachery by a previous inquiry into the state of the woman's health, and into that of her robustness and general strength. *Burns* also remarks that other circumstances may concur in confirming the opinion of the practitioner, "as for instance, if the patient give an absurd account of the way in which her bulk suddenly left her, ascribing it to a perspiration, which never in a single night can carry off the size of the abdomen in the end of a supposed pregnancy."

(*a*) Principles of Midwifery. Edition 5, p. 557.

Q. 6. *Can we determine by any signs whether a woman has ever borne a child, although at a period remote from that of the examination?*

The following are the principal indications of a woman having been delivered at a distant period, but in offering them to the attention of the practitioner, it is necessary to observe, that *singly* they can furnish but very slender evidence, and should they even all occur, they must be regarded as affording only a strong presumption of the fact.

1. The orifice of the womb has not its conic figure; its lips are unequal; and it is more open than in those who have never borne children.
2. There is a roughness of the abdomen, the parietes of which are also more expanded and pensile.
3. There are small white and shining lines running on the surface of the abdomen.
4. The breasts are more flaccid, and pendulous, and the lines on their surface are white and splendid.
5. The nipples are prominent, and the colour of their disks brown.

Q. 7. *What are the earliest and latest periods of life, at which women are capable of child-bearing?*

Zacchias and other authors have considered the commencement and cessation of menstruation as the two extreme points, beyond which the female is incapable of conception; they have very justly considered the menstrual flux as indispensably necessary

for the healthy action of the uterine system. It must be also admitted that no female can conceive until her system has undergone that revolution which we have already described under the head of *Puberty*, although we then stated, that the period of life at which it takes place is liable to be controlled by several physical as well as moral circumstances, we have accordingly many instances upon record of very young females having borne children : during the year 1816 some girls were admitted into the *Maternité* at Paris as young as *thirteen years ;* and during the revolution one or two instances occurred of females at *eleven*, and even below that age, being received in a pregnant state into that hospital. *Schurigius* (*a*) states the case of a Flemish girl, who was delivered of a son at the age of *nine* years ; and in the notes to *Metzger* several instances are related where conception had occurred under the age of *ten.* It has been attempted to ascertain what age, and what season was most prolific : from an accurate register kept by *Dr. Bland*, it would appear, that more women, between the age of twenty-six and thirty years, bear children, than at any other period ; of 2102 women, who bore children, 85 were from fifteen to twenty years of age, 578 from twenty-one to twenty-five, 699 from twenty-six to thirty, 407 from thirty-one to thirty-five, 291 from thirty-six to forty, 36 from forty-one to forty-five, and 6 from forty-six to forty-nine.

The time at which menstruation, and consequently child-bearing ceases, will be materially influenced by that at which it commenced ; with those who commenced at ten or twelve, the discharge often ceases before the age of forty ; but where the first appear-

(*a*) Gynæcologia.

ance has been protracted to sixteen or eighteen, such women may continue to menstruate until they have passed the fiftieth year; but in this climate the most usual period of cessation is between the age of forty-four and fifty, (*a*) after which women never bear children, although we have in ancient (*b*) as well as in modern times, many extraordinary examples of protracted fecundity, to which but little credit ought, in general, to be attached. *Marsa*, a Venetian physician, relates a case of a woman who at the age of sixty brought forth a daughter, and suckled her, and whom he had previously treated for what he had considered to be ovarian dropsy; the annals of our own country (*c*) would furnish some extraordinary instances of a similar kind. *Dr. Gordon Smith* illustrates the subject by the case of the wife of a peruke-maker in Poland-street, in the year 1775, who at the age of fifty-four produced two sons and a daughter, although she had been married for thirty years, and had never before been pregnant.

It is probable that many of those "well authenticated instances" of old women having menstruated, like those recorded of children, are merely sanguineous discharges from the vagina, or from a diseased uterus; this we have no doubt is the true explanation of the case related by *Richerand*, (*d*) of a woman, who at the age of seventy had not ceased to menstruate.

(*a*) "Finis gignendi, ut plurimum, viris quidem septuagesimus annus est, mulieribus autem quinquagesimus." *Aristot.* Polit. Lib. 7, c. 16.

"Vidi Mares fertiles ad annum nonagesimum, et fæminas quæ ad annum quinquagesimum secundum fertiles mansere puerperæ." *Boerhaave* Op. Omu. p. 514.

(*b*) *Plinii* Hist. Nat. Lib. vi, c. 14.

(*c*) *Plott's* Nat. Hist. of Staffordshire, chap. viii, section 3.

(*d*) *Elements of Physiology*, translated by Kerrison.

Q. 8. *What is the possible number of Children that can be produced at one birth?*

According to the most accurate estimates, *Twin* cases, on an average, occur about once in ninety labours; *Triplets* are considerably more rare, they are stated not to take place more than once in three thousand times; and the occurrence of four at a birth is so rare an event, that no calculation has been formed upon the subject. The reader will find a very interesting paper on the "*Plurality of Births*," by *Dr. Garthshore*, in the 77th volume of the Philosophical Transactions, to which we beg to refer him. *Dr. Osborne* states that he has distinctly traced as many as six fœtuses in an abortion.

It is a curious fact that the relative number of males and females born is nearly equal, there being only a small majority in favour of the former, in the proportion of 21 to 20; in consequence of which both sexes are equal at the age of 14, since more male children are still-born, or die in infancy, than females, owing, as *Dr. Clarke* (*a*) has supposed, to the relative size of the head, being greater in the former. *Hufeland* (*b*) has collected the relative number of the two sexes in all parts of the world, and has found them every where the same. "It seems very singular," says *Sir Gilbert Blane*, (*c*) "and at the same time most admirable in the institution of Nature, that this relative number of the sexes should be maintained, though the primordial germs are mixed in different proportions in the ovaria of different females; for it is well known that many women produce such a number of

(*a*) Phil. Trans. for 1786. Vol. lxxxvi. p. 349.
(*b*) Journal des Pratische Heilkunst. Berlin, Jan. 1, 1820.
(*c*) Medical Logic. Edit. 2. p. 35.

children in succession, of the same sex, as is utterly irreconcileable with the laws of blind chance, another word for mathematical necessity." The reader will also derive much pleasure by the perusal of a memoir (*a*) upon this subject by *Dr. Arbuthnot*, entitled "*An Argument for Divine Providence, taken from the constant regularity observed in the birth of both Sexes*," from which the learned author deduces as a scholium, that polygamy is contrary to the law of Nature and justice, and to the propagation of the human species.

Q. 9. *Is Super-fœtation possible, and under what circumstances, and at what period of Gestation can a second conception take place?*

The term *Super-fœtation* implies that a second impregnation may take place, whilst a child is in utero.

There are perhaps few questions relating to the subject of conception, that have given origin to more rigorous controversy; and indeed its important judicial bearings render it a subject of greater interest than it could ever have become intrinsically as a mere object of abstract speculation. Let us, for the sake of illustration, suppose the following case:—A woman loses her husband suddenly, *tenant in tail male*, a month after marriage, and at a little more than eight months after his decease she is delivered of a perfect female child, and at nine months, she declares that she is delivered of another infant, which is a male. The heir at law, who has entered, contests the fact of this latter birth; the question therefore to be determined is, whether such an event is compatible with the known laws of utero-gestation.

The ancient physicians and philosophers undoubt-

(*a*) Phil. Trans.

edly believed in the possibility of super-fœtation; and the Mythology contains a well characterised example in the instance of Iphicles and Hercules, who were begat upon Alcmæna, the former by Jupiter, and the latter by Amphitryon. *Hippocrates*, (*a*) *Aristotle*, (*b*) and *Pliny*, (*c*) entertained no doubt respecting the fact, and in later times we find that the most eminent physiologists have sanctioned the same belief, and have been engaged in recording facts in its support. *Gasper Bauhuin* (*d*) relates a case in which a woman at the end of nine months brought forth a dead child, with a deformed head, and that six weeks afterwards she was delivered of a well formed child which lived. *Buffon* (*e*) presents us with a still more striking example; a woman of Charles-town, in South Carolina, was delivered in 1714 of twins, which came into the world one directly after the other, but to the great surprise of the midwife, one was black and the other white; the woman herself, considering this proof of her infidelity too obvious to be denied, admitted the truth without hesitation,—that shortly after having enjoyed the embraces of her husband, a black servant entered her room, and by threats accomplished his purpose. *Aristotle* (*f*) speaks of an adultress who produced at the same birth two sons, the one of which resembled the husband, and the other the lover; *Pliny* (*g*) also relates several cases of super-fœtation, some of which are certainly no other than twin cases, and the others are merely

(*a*) *Hippocrates* de Super-fœtat: also Epidem. Lib. vii.
(*b*) *Aristotle* De Generat. Animal. Lib. iv. c. 5.
(*c*) *Plinii* Hist. Nat. Lib. vii. c. 2.
(*d*) *Gaspar Bauhuin.* App. ad Lib. de Part. Cæsar. Tit. de Superfœtat.
(*e*) Histoir. Nat. de l'Homme—*Puberte.*
(*f*) De Hist. Animal. p. 258.
(*g*) Hist. Nat. Lib. vii. c. 11.

copied from Aristotle. *Musa Brassavolus* (*a*) has the following remarkable observation upon the subject. "*Nos vidimus super-fœtationem quandoque fuisse epidemicam affectionem.*" *Zacchias* (*b*) also believes in the phenomenon; and in the case of one *Laurette Polymnie*, his testimony secured for her child the rights of inheritance; *Harvey* (*c*) likewise relates a case of super-fœtation, to which we beg to refer the reader; *Haller* (*d*) expresses his opinion in the following words: "*Os uteri nunquam clausum est; ideoque potest super-fœtari non solum a die sexto ad trigessimum, aut primis duobus mensibus, sed omni omnino tempore.*" *Zacchias* (*e*) however, thinks that it can only take place in the first two months of pregnancy, for that after this period, the developement of the fœtus renders it impossible. *Plouquet* observes, that immediately after a first conception, a second may easily take place, but that after a few months it can only occur under the most extraordinary circumstances. If time and space would allow we might adduce a considerable mass of similar testimony, but we shall conclude this part of the subject with the opinion of *Kannegeiser*, "*De superfœtationis existentia rationis quippe principiis, atque infinitis hominum et brutorum exemplis abunde comprobatu, Medicis atque jurisconsultis mens vix amplius hæret in ambiguo.*" (*f*) The best authenticated case of super-fœtation that has occurred in our own times is that communicated to the College of Physicians by *Dr. Maton*: (*g*) Mrs. T—— an Italian lady, remark-

(*a*) Comment. ad Aphorism 38. Lib. v. p. 817.
(*b*) Quæst, Med. Leg. Tom ii. Consilium 76. See also L'Histoire de l'Academie des Sciences, Ann. 1709.
(*c*) De Partu Exercit. p. 547.
(*d*) Element. Physiolog. Tom x. p. 218.
(*e*) Quæst. Med. Leg. Lib. 1. Tit. 3. Q. 3 and 4.
(*f*) Element. Physiolog. Tom x, p. 212.
(*g*) Medical Transactions. Vol. iv. p. 161.

able for her fecundity, was delivered of a male child at Palermo, on the 12th of November, 1807, under very distressing circumstances, having been dropt on a bundle of straw in an uninhabited room at midnight, and although the infant at the time of his birth had every appearance of health, he lived only nine days; on February the 2d, 1808, (not quite three calendar months from the preceding *accouchement*) Mrs. T—— was delivered of another male infant, completely formed, and apparently in perfect health; the child however fell a victim to the measles at the age of three months. *Dr. Granville*, in a paper entiled "On the Mal-formation of the Uterine System,"(*a*) takes occasion to observe with respect to the above case, that "it merely goes to prove the occasional co-existence of separate ova in utero, and proves nothing farther; the lady, whose prolific disposition is much descanted upon in that paper, and with whom twin cases were a common occurrence," continues Dr. Granville, "was delivered of a male child sometime in November, 1807, '*under circumstances very distressing to the parents, and on a bundle of straw*,' and again in February, 1808, of another male infant, *completely formed!*'—mark the expression, for it was not made use of in describing the first. The former died '*without any apparent cause*' when nine days old; the other lived longer. Now can we consider this otherwise than as a common case of twins, in which one of the fœtuses came into the world at the sixth, and the other at the ninth month of pregnancy, owing to the ova being quite distinct and separate? Had this not been the case, the *distressing circumstances*, which brought on the premature contraction of the womb, so as to expel

(*a*) Phil. Trans. for the year 1818.

part of its contents in November, as in the simplest cases of premature labour, would have caused the expulsion of the whole, or in other words, of both ova, in that same month; and we should not have heard of the second *accouchement* in the following February; which led the author of the paper in question to bring the case forward as one of superfœtation, in opposition to what he has called 'the scepticism of modern physiologists.' Had it been proved that the child, of which the body in question was delivered, had *reached its full term* of utero-gestation in November, and that she had brought forth another child one, two, or three months afterwards, of equally full growth, then a case something like superfœtation would have really occurred, and scepticism would have been staggered." In consequence of the doubts thus expressed by *Dr. Granville*, the author of the present work, actuated only by a desire after truth, applied to *Dr. Maton* for a farther explanation of those particular points upon which the merits of the case would seem to turn; and he is thus enabled to clear up the doubts which might be supposed to embarrass its history; the fact is, that *both the children were born perfect*, the first therefore *could not* have been a six month's child; and with respect to the *distressing circumstances* which attended the delivery, *Dr. Granville* appears to have fallen into an important error; he speaks of them as having "brought on the premature contraction of the womb, so as to expel *part* of its contents in November," whereas upon referring to the particular expressions used by *Dr. Maton* in the paper alluded to, we shall soon perceive that they by no means support the assumption of the labour having been *premature*, nor that it was *brought on* by dis-

tressing circumstances; on the contrary, we find upon farther inquiry that the distressing circumstances to which the author alludes were the natural consequence, not the active cause of the labour; indeed the fact, as we learn from *Dr. Maton*, stood thus,—the lady could not obtain better accommodation at the time; that the labour, although quick, was not sudden, for the accoucheur was already in attendance; and that it was not premature, for the natural period of utero-gestation was supposed to have been completed. We must not omit to state that all the particular circumstances of the case were communicated to *Dr. Maton* by the husband of the lady, and as he could not have had any particular theory to maintain, or any private interest to serve, there cannot exist any good reason for questioning the veracity of his testimony, or the justness of our conclusions.

Several physiologists who have attempted to explain the cause of superfœtation have supposed that in such cases the uterus is virtually *double; Morgagni* informs us, that *Catti*, the Neapolitan anatomist, was the first to observe this phenomenon, and that it is owing to a strong membrane which so divides the uterus, that the mouth of a fallopian tube corresponds with each of its cavities; and he farther states, that this strange structure was found combined with a corresponding division of the vagina; *Valisnieri* (*a*) also met with a double uterus, and a double vulva; the same malformation has been noticed by *Littre*, (*b*) *Bauhuin*, (*c*) *Eissenmann*, (*d*) *Haller*, (*e*) and by

(*a*) Opera. Tom. iii. p. 388.

(*b*) Memoir de L'Academie, An. 1701.

(*c*) Append. ad Rousset de P. C.

(*d*) Tabul. Anat. Uteri dupl.

(*e*) Element. Physiolog. T. x, p. 38. See also Memoirs of the Med. Soc Vol. iv. *Purcell* in Phil. Trans. lxiv, p. 474. *Canestrini*, in Med. Facts. Vol. iii. p. 171.

Rhoederer; this latter physiologist in a letter, from Strasburgh, preserved among the Sloane manuscripts, says, "We have got here a great curiosity, viz. a woman body of eighteen years of age, who has the natural parts externally well formed, but internally two vaginæ, each with its *hymen*, to which responds also an uterus duplex having two orificia, each of 'em hanging in its proper vagina, that in such a manner there is quite a double system of generation, and if she had been living a superfœtation could have been formed." *Sabbatier* says that he believes in the possibility of superfœtation, and that the above formation will explain its occurrence; an opinion which is sanctioned by *Gravel* (*a*) and *Teichmeyer*; (*b*) *Duffien* also observes, "*Cette double matrice sert très bien a expliquer la superfœtation.*" (*c*) In quadrupeds superfœtation very commonly occurs, and it has been explained by supposing that the uterus of these animals is divided into different cells, and that their ova do not attach themselves to the uterus so early as in the human subject, but are supposed to receive their nourishment for some time by absorption; hence the os uteri does not close immediately after conception; for a bitch will admit a variety of dogs while she is in season, and will bring forth puppies of these different species; thus, it is common for a greyhound to have in the same litter, one of the greyhound kind, a pointer, and a third or more, different from both. (*d*)

Those physiologists who deny the possibility of superfœtation, among whom we find some of the

(*a*) De Super-fœtatione.
(*b*) Inst. Med. Leg. p. 77.
(*c*) Dict. d' Anatom. T. ii. p. 537.
(*d*) See *Hamilton's* Outlines of Midwifery, p. 105.

most celebrated names, assert that one conception can never supervene another in the same woman, because *the os uteri is closed by coaguable lymph, and the entrance to the fallopian tubes is obstructed by the Decidua Uteri, soon after conception*, and therefore that the semen can never find its way to the internal organs of generation, so as to impregnate a second ovum; this opinion is fortified by the well known aphorism of *Hippocrates*,(*a*) "οκοσαὶ εν γαςρὶ εχυσὶ; ἠδεων δε σομαἰων υςερων ξυμμεμυκεν." *Galen* (*b*) also quoting *Herophilus* says, "*Ne specilli quidem mucronem admittere uteros antequam mulier pariat; præterea ne vel minimum quidem hiscere ubi conceperint.*" Neither *Galen*, however, nor *Ætius*, nor *Paulus Ægineta*, make any mention of superfœtation, a circumstance upon which the opponents of the doctrine lay considerable stress. *Avicenna* alludes to it, but for the purpose of expressing his disbelief in its possibility. *Hebenstreit* (*c*) and *Ludwig*, (*d*) have also expressed very strong opinions upon the subject; the former of whom observes, "*Nullæ fere observationes extra omnem dubitationem positæ superfœtationem confirmant.*" *Baudelocque* (*e*) is equally hostile to such a belief. But it may be said that the argument founded on the entire closure of the uterus is quite gratuitous, many authorities might be cited who disavow the fact, we have already adduced the opinion of *Haller* upon this point; besides, are we sufficiently acquainted with the manner in which impregnation is effected to authorise any deductions from our hypothesis? We

(*a*) *Hippocrat.* Aphorism. Sect. v. 51.
(*b*) Opera Omnia C. 1. p. 302.
(*c*) Anthropologia Forensis, Leip. 1753, p. 208.
(*d*) Institut. Med. For. p. 44.
(*e*) L'Art des Accouchemens.

are completely ignorant in what way the male semen arrives at the internal organs, (*a*) nay, we are not even convinced that its direct transmission to the ovaria is essential to fecundation; it is possible that these organs may be stimulated by sympathy with the vagina. *Parsons* opposes another argument to the doctrine of superfœtation; it is, says he, impossible, because the fallopian tubes become after conception too short to embrace the ovaria, but this opinion is successfully combated by *Haller*. The cases which have been cited to illustrate the phenomenon of superfœtation, are regarded by those who oppose the doctrine as instances in which a plurality of children has existed, and in which one of the following circumstances have occurred, viz.

1. The fœtus has prematurely died, but has remained in utero with the living child, to the full period of utero-gestation.
2. The descent of the ova into the uterus from the ovarium, has not observed the same order of time, one being more slowly evolved than another, although both might have been fecundated by the same coitus.

This latter was the favourite idea of *Celoni*: (*b*) "I am therefore decidedly of opinion," says he, "that this superfœtation is no other than a later developement of a fœtus contemporaneously generated."

(*a*) An Experimental Inquiry concerning Impregnation, by *Dr. Haighton*, Phil. Trans. for 1797, Vol. lxxxvii, p. 159. See also Experiments on recently impregnated Rabbits, by *W. Cruikshank*, Phil. Trans. Vol. lxxxvii, p. 197; and more recently a paper, entitled "Experiments on a few controverted points respecting the Physiology of Generation," by *James Blundell, M. D.* in the tenth volume of the Medico-Chirurgical Transactions, p. 246. This memoir bears internal evidence of the acuteness and experimental accuracy of its author.

(*b*) Chirurg. Forens. T. ii. p. 44.

We have thus presented the reader with a review of the different arguments which have been adopted by the partisans and opponents of this celebrated doctrine, and we have cited copious authorities with a view to enable the student to pursue the investigation to any extent which may be commensurate with his notions of its importance. We shall now conclude by observing that the following occurrences are essential to constitute a case of superfœtation. (*a*)

1. The pregnant woman must bear two children, each of a distinct age.
2. The delivery of these children must take place at different times, with a considerable interval between each.
3. The woman must be pregnant and a nurse at the same time.

Q. 10. *What are the causes of Abortion?*

A gratuitous assumption on the part of some writers respecting the *viability* of the fœtus, has led them to adopt a division into *abortion* and *premature labour*, according as the exclusion from the uterus takes place before, or after, the sixth month of conception; and the distinction is now generally adopted. Natural abortion may be considered as arising either from accidental or constitutional causes; we shall hereafter consider the different modes by which the premature ejectment of a fœtus may be occasioned by art. The exciting causes of accidental abortion may, in gene-

(*a*) *Gravel* de Superfœtatione—Leipsic Memoirs for 1725—and *Teischmeyer* Inst. Med. Leg. p. 75.

ral, be easily detected (*a*); those giving rise to the constitutional kind are often more obscure, and without great attention, the woman will go on to miscarry until either sterility or some fatal disease be induced. In many cases there can be no peculiar pre-disposing cause; as, for instance, when it is produced by blows, rupture of the membranes, or accidental separation of the decidua; but where it occurs without any very perceptible exciting cause, it is allowable to infer that some pre-disposing state exists, and this frequently consists in an imperfect mode of uterine action, induced by age, former miscarriages, and other causes. It is well known that women can only bear children until a certain age, after which, the uterus is no longer capable of performing the action of gestation, or of performing it properly; now it is observable, that this incapability or imperfection takes place sooner in those who are advanced in life before they marry, than in those who have married and begun to bear children earlier; thus we find, that a woman who marries at forty shall be very apt to miscarry; whereas, had she married at thirty, she might have borne children when older than forty, from which it may be inferred, that the organs of generation lose their power of acting properly sooner, if not employed, than in the connubial state. (*b*) We also find that one miscarriage renders the woman liable to the accident at the same period of utero-gestation in subsequent labours, and to such an extent is this susceptibility carried, that it is often difficult with every precaution, for a woman to go to the full time, after she has miscarried frequently. These are circumstances

(*a*) *Burns's* Principles of Midwifery, edition 5, p. 250.
(*b*) *Burns* ibid.

which the juridical physician is, for obvious reasons, to keep in mind; females of disreputable character have been frequently known to miscarry repeatedly in succession; and in such cases we ought not, without very cogent reasons, to draw an inference that may subject them to accusation. We do not consider that any farther observations are required upon this subject, as the numerous works upon midwifery are ready to supply the practitioner with a solution of any problem which may present itself.

Q. 11. *Under what circumstances, and by what means, is it morally, legally, and medically proper, to induce premature labour?*

That premature labour may be induced by a mechanical operation, is too well known to the practitioner in midwifery to require any explanation in this place, while, in a work calculated for circulation beyond the confines of the profession, it would be obviously imprudent to enter into any minute details. It becomes our duty, however, to state, that in those cases of distorted pelvis, through which a full grown fœtus cannot pass without mutilation, the operation may be performed with perfect safety, and with equal advantage both to the child and to the mother. We are informed by *Dr. Denman* (*a*) that there was in 1756 a consultation of the most eminent men in London at that time, to consider of the moral rectitude of, and advantages which might be expected from, this practice, which met with their general approbation; the morality of this mode of practice, however, says

(*a*) *Introduction to the Practice of Midwifery*, 4to *p.* 395.

Dr. Merriman, (*a*) has been doubted by many other persons, but probably for want of considering the question in a proper point of view; for the proposal was, that labour should be prematurely induced, *in those cases only*, where it had been *decidedly proved* that the pelvis was so much contracted in its dimensions, as to render it impossible for a full sized fœtus to pass undiminished; and it is supposed, that this proceeding, while it affords a chance of preserving the child, does not much implicate the life of the mother. *Mr. J. Barlow* (*b*) has given us the result of an extensive practice in inducing premature labour in cases of distorted pelvis, from which it appears that he has had recourse to this method of delivery *eighteen* times, in five women, all of whom had been previously delivered once, or oftener, by the crotchet, and that premature labour occurred spontaneously once in two of this number. All the women recovered, a circumstance which adds a further confirmation to the opinion, that the life of the parent is exposed to very little hazard in this way; of the children thus brought into the world, *six* were dead and *twelve* were born alive, of which some died soon after birth, *one* lived ten months, and *five* were living at the time the account was published. *Mr. Barlow's* method consists in exciting premature labour *early* in the *seventh* month of pregnancy. *Dr. Hull*, well known for his controversial zeal on these subjects, has offered some remarks so judicious and important, that it would be an act of injustice to withhold them

(*a*) *A Synopsis of the various kinds of Difficult Parturition, with Practical Remarks on the Management of Labours, by S. Merriman, M. D. F. L. S. &c. p.* 171.

(*b*) *Medical Facts and Observations, vol.* 8.

from the reader. "The propriety of inducing premature labour," says he, "in any deformed woman, can rarely, if ever, be determined upon before the crotchet has been found indispensably necessary, and actually employed in a previous labour; indeed, unless the contraction of the tube or canal of the pelvis be very considerable and pretty accurately ascertained, it will scarcely be justifiable in any case to have recourse to this practice in all the subsequent pregnancies, until the woman has been delivered a second, or third time, by the crotchet; for it has happened in a very great number of instances, that a woman who has been delivered of her first child by the perforator and crotchet, has been afterwards delivered of one or more living children, at the full time; this observation is made not to discountenance the inducing of premature labour, but to prevent the abuse of it." *Dr. Merriman*, whose extensive practice, and generally acknowledged judgment, stamp a peculiar value upon his opinions, has also pointed out the limitations and cautions which he deems necessary to be observed, to render this operation safe and eligible, (*a*) and he concludes by observing that "*a regard to his own character should determine the accoucheur, not to perform this operation, unless some other respectable practitioner has seen the patient, and has acknowledged that the operation is advisable.*"

(*a*) *Medico-Chirurgical Transactions*, *vol.* 3, *p.* 144; and *Synopsis of the various kinds of Difficult Parturition*, *p.* 173.

Q. 12. *What circumstances will justify the Cesarean Operation, and of what value is the section of the Symphysis Pubis, or Sigaultian operation?*

Where the size of the pelvis (*a*) will not admit the passage of the child, surgical aid is indispensably necessary; but, says *Dr. Merriman*, (*b*) it becomes every man to set out with a determination that he will not hastily, nor without due cause, have recourse to instrumental assistance; (*c*) for he may assure himself, that if he were easily to yield to his own appre-

(*a*) No infant, at the full time, and of the usual size, can be born naturally when the small diameter of the pelvis is not equal to *two inches and a half*. See *Hull's* translation of *Baudelocque*.

(*b*) Op. citat. p. 152.

(*c*) Cases of such difficulty as to render the use of instruments absolutely necessary are so rare as not to occur more than once in *six*, or, at most, *five hundred* labours. *Midwifery*, as a practice, must have been nearly coeval with the creation, but during the first ages it probably consisted in little else than a knowledge of the method of dividing the navel string; as difficulties, however, arose, this knowledge, of necessity, was gradually extended to that of affording mechanical assistance in the exclusion of the fœtus; but it would seem that for many ages those artificial means consisted almost entirely in anointing the pudenda with oil, and in placing the women in hot baths, as we learn from the writings of *Hippocrates*, *Avicenna*, and other ancient writers, who appear to have attributed the whole of the difficulty to a rigidity of the muscles, and to have entirely overlooked that formidable obstacle to child-birth, the mal-conformation of the pelvic basin. *Hippocrates* and *Celsus*, however advise, that upon the failure of the ordinary means above alluded to, the head of the child should be opened with a scalpel, and then extracted with strong iron pincers or hooks; but it appears that the advice of *Hippocrates* was rarely followed, and that, in such cases, the child was mangled by the scalpel, and brought away piece-meal. See *Albucasis*, Methodus Medendi Lib. ii, and *Ruett* de Conceptione et Generat. Hominis.

hensions, or to the expressions of alarm by the attendants in the lying-in chamber, and in consequence were to try to expedite the delivery by his instruments, he would, on very many occasions, do irreparable injury to the parent or her child.

Instrumental delivery resolves itself into three classes,—

1. *Where neither the mother nor the child is of necessity injured*, as by the use of the Forceps (*a*) and Lever. (*b*)
2. *Where the mutilation of the child is the principal object*, as by the Perforator and Crotchet.
3. *Where the mother is wounded*, as in the Cæsarean and Sigaultian operations.

It is of the latter class we have now to speak.

Of the Cæsarean Operation:

By which a fœtus is extracted from the uterus of the mother through a wound, made for that purpose, in the abdomen. The term *Cæsarean*, according to some authors, is derived from the operation "*cæso matris utero*," while others have supposed that it owes its origin to the fact, recorded by *Suidas*, of Julius Cæsar having been cut from the womb of his dead mother in the ninth month. Although *Hippocrates*,

(*a*) The Forceps were invented by *Chamberlen* in 1672, and in his translation of *Mauriceau's* Treatise on the Art of Midwifery, he indirectly announces the discovery, but does not describe the instrument.

(*b*) The Lever appears to have been invented at about the same time by *Roonhuysen*, of Amsterdam, after his having purchased the secret of the Forceps from their inventor *Chamberlen*.

Celsus, *Paulus*, *Ægineta*, and *Albucasis*, all treat upon the subject of instrumental labours, not the slightest allusion is made to the *cæsarean* section. The *Chirurgia Guidonis Cauliaci* is the first work in which any mention is made of the operation; and this was published about the middle of the fourteenth century, but the author only describes it as a resource to save the child after the death of the mother, as, says he, happened at the birth of *Julius Cæsar*. *Parè* also considered the operation as one that ought never to be attempted on the living subject; *Rousset*, however, his cotemporary, published a work (*a*) in its favour, which becoming popular, was, through the medium of a latin translation by *Caspar Bauhine* in 1601, quickly circulated throughout Europe; from this period, the cæsarean section acquired a certain degree of vogue, and began to be performed in cases of extreme difficulty, particularly on the continent, where it has not unfrequently proved successful. In this country the operation has been generally fatal: a very extraordinary case (*b*) is, however, stated to have occurred in Ireland, and however incredible the story may appear, says *Dr. Merriman*, (*c*) there seems no

(*a*) "*Traité nouveau de l'Hysterotomotokie, ou Enfantement Cesarien, qui ese l'extraction de l'enfant par incisione laterale du ventre, et de la matrice de la femme grosse, ne pouvent autrement accoucher; et ce sans prejudicier à la vie de l'un et de l'autre, ni empecher la fecondité naturelle par après.*"

(*b*) *Edinburgh Medical Essays*, *vol.* v. *Baudelocque* has published a table of operations amounting to 64, 24 of which have been performed with success to the mother, and all of them might have been attended with success to the child, if they had been performed in time. See *Hull's* Translation.

(*c*) *Synopsis*, p. 164. In the Appendix *Dr. Merriman* has given a *list of cases in which the operation has been performed in the British islands*. See also *Dr. Denman's* Introduction to Midwifery; and the Defence of the Cæsarean Operation by *Dr. John Hull*, Physician at Manchester, 8vo. 1798.

reason to doubt its truth; it is related by *Mr. Duncan Stewart*, surgeon, in Dungannon, who saw the patient some days after the operation; and the account is confirmed by *Dr. Gabriel King* of Armagh, who says, that he drew out the needles, which the midwife had left to keep the lips of the wound together. The patient's name was *Alice O'Neil*, and the operator was an illiterate midwife, one *Mary Dunally;* the instrument used was a razor, with which she first cut through the containing parts of the abdomen, and then the uterus. "She held the lips of the wound together with her hand, till some one went a mile and returned with silk and the common needles which tailors use; with these she joined the lips in the manner of the stitch employed ordinarily for the hare-lip, and dressed the wound with whites of eggs." The woman recovered in twenty-seven days. It has often been an object of inquiry, why this operation (*a*) should have been more successful upon the continent than in this country? the answer to this question is obvious and satisfactory. In this country we have only had recourse to it as an operation of necessity, where we can neither accomplish the delivery by diminishing the bulk of the child, nor by any of the other resources already explained; whereas the practitioners of France, and the other states on the continent of Europe, perform it not only as an operation of necessity, but as one of election.

(*a*) While correcting the present work, we have received a report of the Cæsarean operation having been performed in Paris, by *M. Beclard* with complete success. The incision was made in the direction of the *Linea Alba*. See also, *A case of Cæsarean operation, in which the lives of the mother and child were both saved*, by J. J. Locker, M.D. in the 9th vol. of the Medico-Chirurg. Trans.; also *The History of a Second Operation performed on the same Patient*, together with an Appendix by W. Lawrence, Esq. ibid. vol. II, p. 201.

in cases where the mother may confessedly be delivered with safety, by sacrificing the life of the fœtus; it would also appear that in general they have recourse to the operation, before the patient has suffered very much from the continuance of labour. How greatly this circumstance is capable of influencing the success of a surgical operation, we have a satisfactory demonstration in the history of that for *Hernia*, and in which *Mr. Bell* (*a*) informs us, the French were formerly more fortunate, because they proceeded more early to the operation than the surgeons of almost any other nation. It deserves notice that the religious tenets of different countries appear to have influenced the popularity of the cæsarean section; it is easy to suppose that in those catholic nations where a belief exists of the necessity of baptism to secure the eternal happiness of the infant, the mother would become a willing sacrifice to make her offspring a christian. (*b*).

In delivering our opinion upon the propriety of

(*a*) *Bell's* Surgery, vol. 5, p. 300.

(*b*) We have already alluded to this opinion, see *Midwifery*. p. 82. The same superstition will explain the origin of the jurisdiction which the priesthood have enjoyed in deciding upon the propriety of performing the *cæsarean section*; the doctors of the *Sorbonne*, and the heads of theological schools and colleges have freely given decisions upon it, and have ruled, that it ought to be performed whenever it is known that the child is living, and it is impossible by other means to extract it alive; for they assert that it is a deadly sin *(péché mortel)* to perforate the head of a living child in the womb. The clergy are instructed, in the event of a mother refusing to submit to the operation, to omit no means of persuading her; they are to point out all its advantages, and to intimate, that the operation is not so cruelly painful as might be thought; they are directed to speak of submission to it, as an act of the greatest love to God, and resignation to his will, that can possibly be shewn: it is even suggested, that under some circumstances, the patient might be forcibly confined, and the operation performed against her will. It is further declared, that physicians or surgeons refusing to recommend

performing the cæsarean section in this kingdom, we should say that there are cases in which it is the bounden duty of the accoucheur to proceed without delay, and such appears to have been that described by *Dr. Merriman*, of which the pelvis in the museum of *Mr. Charles Bell* is a sufficient proof; for so extreme is the distortion, that a marble measuring less than one inch in diameter, cannot be made to pass through it in any direction ; in this case, and some others of a similar nature, the *Cæsarean* section was the only means of preserving the child. We are of opinion, however, that the operation ought never to be performed where by *Embryulcia* the child can be extricated; and although circumstances of inheritance should induce the husband to entertain a feeling like that which animated Henry VIII, the practitioner has but one broad line of duty to observe, to save if possible the mother and child, but where this is impossible, to feel no hesitation in sacrificing the life of the latter. In the event of a woman, near the full time of pregnancy, dying undelivered, the *Cæsarean* operation ought always to be performed with as little loss of time as possible; since by this measure a chance of preserving the child will be afforded, and *Dr. Merriman* states that several cases of such an operation, after the death of the mother, have been recorded, with the desired effect of saving the in-

or to perform the operation, when they should think it necessary, would thereby render themselves guilty of a deadly sin, and ought to be reprimanded by the magistrates; and praise is given to an edict, in force in Sicily, which declares that no person shall be admitted to practise as a surgeon, until he has been carefully examined as to the manner of performing the *cæsarean* operation on the living mother. See *Merriman's* work already cited; *Cangiamila* Embryologia sacra passim; *Raynaud* de ortu Infantis contra Naturam.

fant. (*a*) *Numa Pompilius* prohibited the burial of a pregnant woman until the fœtus shall have been extracted. (*b*) We have already stated, upon the authority of *Suidas*, that to such an interposition Rome owed the life of *Julius Cæsar*; and it has been maintained that *Edward* VI was thus taken from his mother after death, while others have endeavoured to render it probable, that the cæsarean operation was performed while she was yet living. How long after the death of the mother the child may survive *in utero*, is a question which cannot be readily answered; some authors (*c*) mention twenty-four or even forty-eight hours; and in relating this fact, *Dr. Merriman* adds an accompaniment which we also feel a great inclination to adopt—*a note of admiration!* In the late *Dr. S. H. Jackson's Cautions to Women* (1798) mention is made of a child extracted by the *forceps*, which was restored to life, though the mother had been dead full half an hour before it was taken from the womb.

(*a*) Amongst these cases, the following appears as an interesting instance. "Wednesday, July 15th, at Eddescastle, Staffordshire, the wife of Mr. Prescott, an exciseman, being killed by a flash of lightning, was opened, and a living male child taken out, which was immediately christened *Jonah*, and is like to live." *Gentleman's Magazine*, 1747. See also *Spence's Midwifery*, 1784, p. 495. *Viardel* cxxiv. *Embryologia sacra.* Schurigii *Embryologia*, p. 122.

(*b*) *Digest.* Lib. 11, Tit. 8, L. 2.

(*c*) *Van Swieten* (Com. in Boerh. Aph. tom vi, p. 403) has the following observation upon this subject, "*Non desperandum tamen est de fœtus vita, licet post mortem matris notabile tempus effluxerit, uti plurimus constat observatis.*"

Amongst the different proposals which have been submitted to the profession with a view to supersede the necessity of the Cæsarean section, that proposed by *M. Sigault*, a surgeon at Paris, in the year 1768, deserves some notice. The operation, which from the name of its inventor was called the *Sigaultian*, consisted in making a section of the *Symphysis Pubis*; perhaps, says *Dr. Merriman*, there never was a surgical operation more enthusiastically received and commended than this. The

It must be admitted, that a child taken from the womb of its mother by the cæsarean section, cannot in philological strictness he said to have been *born*. The ingenious purpose to which *Shakspeare* has applied this quibble has no doubt suggested itself to the reader.

App. Macbeth! Macbeth! Macbeth!
* * * * * * *
Be bloody, bold, and resolute: laugh to scorn
The power of man; for *none of woman born*
Shall harm Macbeth."

Act iv, *sc.* 1

Macd. * * Despair thy charm;
And let the angel, whom thou still has serv'd,
Tell thee, *Macduff was from his mother's womb*
Untimely ripp'd.

Act v, *sc.* viii.

The circumstance merits our observation, in as much as it has furnished a subtlety for disputation, as we have already noticed at page 225.

OF EXTRA-UTERINE CONCEPTION.

It sometimes happens, that instead of the impregnated ovum passing into the womb, it is either re-

operator was immediately honoured with a pension from the French government, and a medal was struck to commemorate the invention; at length, however, the ill success of the practice occasioned it to sink into complete desuetude, and the remembrance of it can now be beneficial only as it may serve to caution us against the inconsiderate and hasty adoption of modes of practice unsupported by just reasoning, and unsanctioned by experience. *Merriman*, Op. citat. p. 168.

tained in the ovarium, (*a*) or it stops in the fallopian tube, or it misses the tube and falls amongst the bowels. Of these, the *tubal* is by far more frequent than the *ventral* conception. We learn from the numerous cases which are recorded of extra-uterine pregnancy, that it may terminate in several different ways; in some cases sudden death occurs from hemorrhage; (*b*) in others, the unfortunate woman survives for a long period; and it has occurred that the fœtus has been converted into a substance somewhat analogous to the *gras de cimetières*, (*c*) in which case very little inconvenience is felt beyond that which must attend the tumour of the belly for so many years. Nature, however, more generally institutes a process to get rid of the extraneous body; the sac adheres to the peritoneum or intestines, and, after an uncertain period, varying from a few weeks to several years, it either opens externally, or communicates with the abdominal viscera, and highly offensive matter, together with putrid flesh, bones, and coaguli, are discharged through the abdominal integuments, or by the rectum, (*d*) vagina, or bladder. (*e*)

The most extraordinary circumstance in the history of these conceptions is the sympathetic enlargement of the uterus, and even in some cases, the formation of

(*a*) See a most interesting case of Ovario-gestation, by *Dr. Granville*, published in the Phil. Trans. 1820.

(*b*) *See a description of an Extra-Uterine Fœtus contained in the Fallopian Tube*, by GEORGE LANGSTAFF, Esq. Medico-Chirurg. Trans. vol. 7, p. 437.

(*c*) *Fourcroy*, Système, tom. x, p. 83. See also our observations and references upon this subject at page 96.

(*d*) See *the History of a Woman who bore a seven months Fœtus for seven years, and was delivered of it per anum, and completely recovered*, by Dr. ALBERS. Med-Chirurg. Trans. vol. 8, p. 507.

(*e*) See *Burn's* Midwifery, edit. 4, p. 189.

the *Membrana Decidua.* (*a*) *Riolanus* (*b*) was the first person who noticed these conceptions. *Vesalius* observed a *tubal* conception at Paris in 1669; the fœtus was four months old, and the tube was so enlarged, that he mistook it for a second uterus, and actually published an account of it, under the title of "*Demonstration d' une double Matrice.*" *De Graaf*, and afterwards a learned German by the name of *Elshotius* commented upon this case in a tract entitled "*De Conceptione Tubaria, qua humani fœtus extra "uteri cavitatem in tubis quandoque concipiuntur*," in which is given the figure of the two supposed *uteri*, and the fœtus in the distended tube. In the *Journal des Sçavans*, A. D. 1678, a case is recorded of a woman at Paris who carried an *extra-uterine* fœtus in the omentum for twenty years; and in the *Philosophical Transactions* there is an account of a fœtus of this description, by *Dr. Steigerthal*, that remained in the body of the mother for upwards of *forty* years. In the present state of our physiological knowledge it is impossible to offer any explanation of the cause of these anomalies in the law of Nature, but we recommend to the attention of the student a paper by *Dr. Blundell*, on the Physiology of Generation, to which we have before taken occasion to allude (*c*) in terms of high commendation.

OF HERMAPHRODITES.

The term *Hermaphrodite* (*d*) signifies an animal in which there exists a mixture of the male and female

(*a*) *Baillie* Phil. Trans. vol. 79.

(*b*) Anthropolog. Lib. 2, c. 34.

(*c*) *Medico-Chirurg. Trans.* vol. 10, p. 269.

(*d*) The Greek word Ἑρμαφρόδιτος is a compound of Ἑρμῆς, *Mercury*, and Ἀφροδίτη, *Venus*—a mixture of Mercury and Venus, i. e. of

organs, and which is therefore capable of begetting or conceiving. There can be no doubt but that some of the lower orders of animals (*a*) are, in the strict sense of the term, Hermaphrodites; but it is now universally admitted that, in the human species, no such phenomenon ever existed; indeed, if we only consider the osteology of the pelvis, to the bones of which the organs of generation are connected, it is impossible to imagine how the complete parts of the male and female could be placed distinct from each other; nor is there upon record a single case which can be considered authentic; (*b*) numerous are the instances of preternatural structure, which gives the appearance of a double sex, and it is on the nature of such monstrous productions, that the medical man is frequently called upon to decide. *Baron Haller* has industriously collected in one point of view, the histories of reputed hermaphrodites, from almost every author that has preceded him; and from this me-

Male and Female. The Greeks also called Hermaphrodites Ανδρογυνοὶ, i. e. *men-women.*

(*a*) In the *Memoirs of the French Academy*, there is an account of hermaphrodite animals, that not only have both sexes, but do the office of both at the same time; such are *earth-worms: round-tailed worms found in the intestines of men and horses; land snails, and those of fresh waters; and all the species of leeches.* And as all these are reptiles, and without bones, *M. Poupart* concludes it probable, that all other insects which have these two characters, are also hermaphrodites. Monstrous productions, having a mixture of the male and female organs, and which have been termed *hermaphrodites*, (although the *ovaria* and *testes* are always too imperfect to perform their functions) appear to arise most frequently in neat cattle, and are known by the name of *Free Martins.* The reader will find much curious information upon this subject in a paper by *Mr. John Hunter*, in the 69th vol. of the Philosophical Transactions. *Pliny* tells us that the chariot of *Nero* was drawn by four hermaphrodite horses.

(*b*) The doctrine of hermaphrodites has nevertheless been warmly maintained by foreign writers, among whom we may notice *Aldrovandus*, *Licetus*, *Schurigio*, *Paul Zacchias*, and *Bauhin.*

moir, (*a*) and the interesting paper by *Sir E. Home*, entitled "An account of the Dissection of an Hermaphrodite Dog, to which are prefixed some observations on Hermaphrodites in general," (*b*) we acknowledge ourselves principally indebted for the following remarks.

Sir E. Home considers that all the monstrous productions, hitherto noticed and described as Hermaphrodites, may be reduced to one of the *four* following classes, viz :

1. *Malformations of the Male.* 2. *Malformations of the Female.* 3. *Males with such a deficiency in their organs, that they have not the character and general properties of the male, and may be called* NEUTERS. 4. *Where there exists a real mixture of the organs of both sexes, although not sufficiently complete to constitute double organs.*

To illustrate the first case, we may refer to that of a negro described by *Cheselden*, (*c*) who would appear to have possessed the organs of the male exclusively, only in a state of great distortion, owing to the imperfection of the *scrotum*, which was divided into two separate bags with a deep slit between them, resembling very much the *labia pudendi*, and the opening into the vagina; over these hung down the penis; the imperfection of the septum of the *scrotum*

(*a*) *Comment. Soc. Reg. Scient. Gottingen.* T. 1.

(*b*) Phil. Trans. vol. 89, A. D. 1799.

(*c*) Anatomy of the human body, p. 314, and the plate. A similar case is to be found in the *Sloane M.S.* in the British Museum, no. 4432, 5. "*Hoc non satis animadvertantes mulierculæ nativitate ejus adstantes, in dijudicatione sexus erravere, et Infans Elizabethæ nomine baptizabatur.*"

extended to the canal of the *urethra;* this is not unlike the fissure of the hare-lip being continued through the bony palate, a circumstance often met with. The under surface of the *penis* was attached, through its whole length, to the two bags containing the testicles, looking like a preternatural *clitoris*; to which it bore a more perfect resemblance from the absence of the *urethra*. The urine passed through a preternatural termination of the *urethra* in the *perineum*, and came out externally in the space between the testicles, which formed an enlarged aperture that had been mistaken for a narrow vagina, in consequence of its allowing an instrument to pass to some distance, by conducting it to the bladder. Such mal-formation of the male organs (*a*) is particularly worthy attention, for it is that, more than any other, which has given origin (*b*) to mistakes respecting the mixture of the sexes. The *lusus* often occurs in different degrees of imperfection, and may in some instances be materially diminished by art. In the *second* case, it may be observed that there are two mal-formations of the female organs of generation, which may give to the external parts a doubtful character; one is an enlargement of the *clitoris;* the other, a protrusion of the internal parts. It has been already stated that enlargements of the *clitoris* are not of rare occurrence, especially in hot climates; and that at birth it is often larger than the penis, and has frequently given rise to mistakes; so that females have been baptised as

(*a*) This observation applies to the irregular structure of quadrupeds as well as to that of man; *Haller* dissected a ram, in which the parts had been supposed to be those of an hermaphrodite, whereas he found the animal with the imperfections above related.

(*b*) This appears to have been the fact in the case related by *Mr. Pring*. See London Medical Repositoty, vol. 13.

males. (*a*) The following remaks may serve to lead to a correct decision upon these occasions:—If the subject be a female, the labia are well formed, and when handled no round bodies are felt in them like testicles; the fissure at the extremity of the glans does not communicate with any canal of the urethra; but under the glans, and at the posterior extremity of the fissure, there is an opening which leads immediately to the bladder. (*b*)

The other mal-formation of the female genital organs consists in a protrusion of the internal parts, of which we have already given an example (*see page* 28); the womb when thus displaced, has assumed so close a resemblance to the penis, that it has been actually mistaken for one by medical men of the highest character, as in the instance related by *Sir. E. Home* in his paper upon Hermaphrodites; another case is also published in the *fifteenth* volume of the *Philosophical Transactions*, in which the menses periodically flowed through the orifice of the supposed penis. With respect to the third order of imagined hermaphrodites, which *Sir E. Home* has called *neuters*, and where the subject, although a male, has not, in consequence of organic defects, the characters of his sex, has been said to be more common than is generally supposed, especially in early life, and that by farther developement the anomalies have sometimes

(*a*) *M. Ferrien* observes, an erroneous opinion prevailed in France that the greater number of miscarriages between three and four months, were males; the mistake, says he, evidently arose from the size of the clitoris at this period—Mem. de l' Acad. Royal des Sciences de Paris, 1767, p. 330. See also *Arnaud* on Hermaphrodites. *Parsons*, Phil. Trans. 1751, 142.

(*b*) *Male's* Juridical Medicine, edit. 2, p. 266. *Baillie's* Morbid Anatomy.

disappeared; it is, probably, as *Sir E. Home* very justly observes, only those whose form is very like females, that have attracted the notice of common observers, so as to have their defects discovered. *Ambrose Paré* mentions a case, where by violent exertion, the male organs of generation became suddenly developed, and the person who had before been considered as a female, was admitted to the rights of manhood; and a similar case is recorded by *M. Veay*, as having happened at Thoulouse, *(see also Montaigne's Esssay, chap.* xx.*)* The examples which fall under the fourth order are very uncommon in occurence,—where there is a real mixture of the organs of both sexes, although not sufficiently complete to constitute double organs; indeed we are very much inclined to question whether a real participation of the nature of both sexes ever takes place; in almost every case where due examination has been made, such persons have been found to belong decidedly to the one sex or to the other. *Petit* (*a*) has reported the dissection of a soldier, aged twenty-two, who had not only the testes in the abdomen, but also a womb, and nearly the whole apparatus of the female genitals; in this, as well as similar stories, we are disposed to think with *Dr. Gordon Smith*, (*b*) that things have been called by wrong names. (*c*)

(*a*) Hist. de l'Academie Royal, &c, 1720.

(*b*) Principles of Forensic Medicine, p. 498.

(*c*) We omitted to state in page 286 that an enlarged Clitoris is almost endemial in some countries, particularly Egypt and Darfur, where the excision of it is very commonly practised, and the operation is performed a little before the period of puberty, or at about the age of 8 or 9 years; this custom is mentioned by *Strabo*, and also by *Albucasis*, who in his 7th chapter observes, that every parent knows when a child has those parts longer than ordinary, and cut and burn them off while the girls are very young. *De Graaf* was also acquainted with the fact, and observes, "Estque hujus partis chirurgia orientalibus tam necessaria quam decora."

OF IDIOTS AND LUNATICS.

ALTHOUGH the right of a child to succession and property be established by proving its legitimacy, such right may be suspended or controlled by various incapacities. Idiotism and Lunacy alone require our immediate notice; for though non-age be another impediment to the exercise of a child's rights, and the fact may sometimes admit of medical elucidation, yet the instances must be rare, and the question will more properly belong to the head of Criminal responsibility; "Idiocy or not is a question triable by jury" (*a*); "and sometimes by inspection;" it is distinguished in law from madness(*b*) & lunacy, being *dementia naturalis vel a nativitate* (*c*), depending generally on a defective organization, whereas madness and lunacy are *dementia accidentalis*, the former continual, the latter intermittent,(*d*) both varying in degree, danger, and resistance to cure, yet both capable of cure or palliation by

(*a*) In which case the finding of the jury should follow the words of the commission, or the inquisition may be quashed. *Ex parte Cranmer*, 12. *Ves.* 455.

(*b*) The word MAD has been derived by Dr. Haslam from the Gothic MOD, which signifies *rage*; he observes, "it is true, we have now converted the o into A, but MOD is the ancient word."

(*c*) *Ideocy*, or *fatuity a nativitate, vel dementia naturalis.* Such a one is described by *Fitzherbert*, who knows not to tell 20s, nor knows who is his father or mother, nor knows his age; but if he knows letters, or can read by the instruction of another, then he is no ideot. *F. N. B.* 233. new edit. 517. These, though they may be evidences, yet they are too narrow, and conclude not always; for *ideocy* or not is a question of fact triable by jury, and sometimes by inspection. *Hale Pl.* 29. *Bl. Comm.* 304.

(*d*) Hence the term LUNACY, from the supposed regulation of the intellect in certain states, by the influence of the moon; and the distinction between Idiot and Lunatic was formerly of the greatest importance, as the King had the custody of an Idiot to his *own use*, not so of a Lunatic. F.N.B. 530, n. *Dyer*, 25.

medical treatment, and pre-eminently subjects of medical jurisprudence. (*a*).

An idiot (*b*) or natural fool is one that hath had no understanding from his nativity, and is therefore by law, presumed never likely to attain any; (*c*) 1st. *Blackstone's Commentaries*, *c.* 1, *p.* 302. It has been held that an inquisition finding that a person has not had any lucid intervals *per spatium octo annorum*, was a good finding of idiocy; *Prodgers and Phrazier*, 3 *Mod Rep.* 43, *Skinner's Reports*, p. 177, and Lord *Donegall's Case*, 2 *Vesey's Reports*, p. 408, (*d*) *contra Prodgers and Phrazier*, 1st *Vernon's Reports*, p. 12. *see* 1st *Fonblanque's Treatise of Equity*, p. 63; but as a person may not have been mentally incapable *a nativitate*, and therefore not an idiot, and yet be affected with madness without lucid intervals, and therefore not legally or logically a lunatic; the better general distinction appears to be, whether the party is *compos* or *non compos mentis*, (*e*) but see 1st *Blackstone's Commentaries*, p. 304, 1st *Fon-*

(*a*) *Igiter si de insania ejusque variis generibus judicium ferendum est, hoc ab iis potissimum fieri oportet, quibus omnia pertinent, quæ ad omnem hominis naturam proprius perspecta sunt, atque cognita, medici igitur de dignoscendis insanis audiendi sunt.—Platner de Insanis et furiosis.*

(*b*) The word is originally Greek, ἰδιώτης, a *private person*, or one who leads a private life, without any share or concern in the government of affairs.

(*c*) Anciently the king could grant the care of an idiot's person and the profits of his estate during his life, without account, except for necessaries; but since the Revolution the crown has always granted the surplus to some of his family. *Ridgw. Pa. Ca.* 159. *App. n.* 1. *Lysart v. Royse. Sch. and Lef.* 153. *Fitz-geralds Case ib.* 436.

(*d*) See also Lord *Wenman's case*, 1 *P. Wms.* 702, *Beverley's Case*, 4 *Co. R.* 126; *Rochfort v. Ely*, *Ridgw. Parl. ca.* 515 *App. note* 1.

(*e*) This term is recognised by the 4th *Geo.* 2, *c.* 10. *Carew v. Johnson*, 2 *Sch. and Lef.* 304, and Sir *Ed. Coke* says it is the most legal name,

blanque's Treatise of Equity, p. 63, and cases cited there; Lord *Hardwick's* Judgment in *Ex parte Barnsley*, 3d *Atkyn's Reports*, 168, (*a*) Lord *Eldon's Judgment in Rigeway and Darwin*, 8th *Vesey's Reports*, 65; Lord *Erskine's Judgment in Ex parte Cranmer*; 12th, *Vesey's Reports* 445; and *Collinson on Lunatics*. By which authorities it will appear that the jurisdiction of the Court of Chancery (*b*) over the persons and estates of lunatics extends to those who, being of infirm mind by reason of grief, accident, old

1 *Inst.* 246: "Here *Littleton* explaineth a man of no sound memory to "be *non compos mentis*. Many times (as it here appeareth) the Latin "word explaineth the true sense; and calleth him not *amens*, *demens*, "*furiosus*, *lunaticus*, *fatuus*, *stultus*, or the like, for *non compos mentis* is most "sure and legal." Lord *Coke* says, "*Non compos mentis* is of four sorts: first *Idiota*, which from his nativity, by a perpetual infirmity, is non compos mentis; secondly, he that by sickness, grief, or other accident, wholly loses his memory and understanding; thirdly, a lunatic that has sometimes his understanding and sometimes not, "*aliquando gaudet lucis intervallis*;" and therefore he is called *non compos mentis*, so long as he hath not understanding.

(*a*) Where it is among other things laid down that mere weakness of mind only is not a sufficient reason for granting the custody of the person and of his estate. The cupidity of relations is too apt to magnify indiscretion, eccentricity, and more particularly pecuniary extravagance into signs of madness; juries and commissioners cannot be too much on their guard against such modes of proof, lest one half of the world should lock up the other. The Romans committed prodigals to the custody of a guardian, as if they had been infants or madmen; but this is not the law of England.

(*b*) In common parlance it is called the jurisdiction of the Court of Chancery; but in strictness, the care and regulation of ideots and lunatics is a branch of the king's prerogative (17 *Ed.* 2. *c.* 9.) which is committed to the Lord Chancellor, not by delivery of the great seal, as his general jurisdiction is, but by warrant under the sign manual; therefore the appeal is to the King in Council, and not to the House of Lords; and neither the Master of the Rolls nor the Vice Chancellor can sit for the Chancellor, or make any orders in matters of lunacy.

age, disease or other cause, are incapable of managing their own affairs. (*a*)

A person born deaf and dumb is not of necessity an idiot, for he may have received instruction by signs, *Dickenson and Blissett*, 1st *Dicken's Reports*, 268, but if he be also blind, the presumption is that he is an idiot; Lord *Coke* indeed says that those who become so, being also deaf and dumb, are idiots, *Coke's Littleton*, 42; 1st *Blackstone's Commentaries*, 304, and they are, so far as the jurisdiction of the Court of Chancery extends; for though they may have some mental faculty it is impossible that they can exercise it for the management and protection of their property.

(*a*) See *Beverley's Case*, 4 *Co. Rep.* 123. So in the case of Miss *Kendrick*, 8 *Ves.* 67; Lord *Eldon* said, "No one can look at this case without seeing, that every person about this lady is satisfied, that some care should be thrown round her. If clearly it is fit to protect her against executing powers of attorney, that she should not decide where her person, or with what trustees her property ought to be, all agreeing, that she should not choose the persons who are to have the care of her property, it is fit for me to put a controul upon those who may be proper persons to have the controul of her property. I will not subject her to another commission; but will direct two physicians, who have not been concerned nor consulted, to talk to those who have been concerned and consulted, to see the evidence, and afterwards in the most tender manner, to find the means of visiting her without alarming her, for the purpose of determining, whether her state of mind is competent to the management of her affairs. I am pretty confident Lord *Hardwicke* would not have gone so far: but finding when I came here a course of cases establishing this authority, and feeling a strong inclination to maintain it, or that the legislature should take measures to preserve persons in a state of imbecility, laying them as open to mischief as insanity; till these decisions are reviewed, I will not alter them."

An order was made accordingly, restraining Miss *Kendrick* from executing any instrument, except in the manner and with the attestation directed by the order.—We have not been able to discover this order in the Register's books.

Habitual drunkenness *(a)* will not alone support a commission of lunacy, *Cory and Cory*, 1st *Vesey, Senr.* 19, but in *Ridgeway and Darwin*, 8th *Vesey* 66, Lord *Eldon* stated that a commission had been supported on this ground.

Among the legal disabilities under which persons, non compos, labour, one of the most material to the medical adviser is connected with the disposal of property by will, *(b)* and it is most peculiarly his duty to observe, as in most cases his situation will enable him to do, whether the testator was or was not of sound mind, memory, and understanding, at the time of making his will; for it can scarcely be necessary to observe, that many, who during the greater part of their lives have been of sound mind, gradually lose their faculties towards its close, and become liable to the impositions, restraints, and in some cases even to duress, accompanied with cruelty of those about them, to the disgrace of humanity, and the injury of their lawful kindred; in such cases the medical attendant alone obtains access, it is to him therefore that the

(*a*) A broad distinction, however, is to be made between the immediate and remote effects of intoxication: we shall have occasion to dwell at greater length upon this subject, under the consideration of Criminal Responsibility, in the third part of this work; upon the present occasion, we shall only observe in the words of Dr. Haslam, that 'although the usual effect of fermented liquors is temporary, yet that a single debauch may produce a state of mind that may be continued into a permanent insanity; and the person so affected may remain for many months in a state of mental derangement, and during the prevalence of his disorder may be compelled to forego all intoxicating beverage.

(*b*) *See Bl. Commen.* 497; *Hall v. Warren*, 9; *Ves.* 605; *White and Wilson*; 13 *Ves.* 37; 1 *Fonb. Tr. Eq.* 51, and cases there; 1 *Collinson*, 608, & cases there.

law will look for the detection, exposure, and defeat of frauds. An idiot cannot make a will, but a lunatic may, during a lucid interval; and subsequent lunacy does not operate as a revocation of a will. *Forse and Hembling's* case, 4 *Co.*

If a person be improperly confined under pretence that he is a lunatic, the remedy is by habeas corpus, directing the keeper to bring the party into court; but if it appears on affidavit of some competent person that the party is actually lunatic, and in such a state of mind that he is not fit to be brought into court (*a*), and more especially if a commission of lunacy is about to be issued, the court will enlarge the time for the return of the writ according to the nature of the case, (*Rex v. Clarke*, 3 *Burr R.* 1363.) And if liberty to have access and inspection of such lunatic be applied for, it must be on behalf of some person who has pretension to demand it, or the Court will reject the request (ibid.) (*b*).

But though no commission has issued, the Court of

(*a*) A lunatic ought not to be brought before the Court of Commissioners under any artificial excitement. In a recent instance, a lunatic, or supposed lunatic, was brought before commissioners for a second examination, his conduct at the first having been rational; in the interval he had been permitted to drink a considerable quantity of ale, spirits, and bottled porter, immediately after which he was again produced, when his altered demeanor convinced the jury (ignorant of his potations) that he was lunatic, and a verdict was found accordingly. One of the commissioners being afterwards accidentally informed of the circumstance, laid the case before the Lord Chancellor, who immediately quashed the commission. The conduct of these keepers could not be too severely reprobated, and we may take this opportunity of hinting that the practice of holding any judicial investigation in taverns and public houses (where it can be avoided) is liable to many objections; at least the *Inquisitio post prandium* should be abolished.

(*b*) Access has also been denied to a party having an interest, *Ex parte Littleton*, 6 *Ves.* 7; but query.

Chancery will interpose, as where the Lord Chancellor stopped a lunatic from being carried out of the jurisdiction of the Court (into Scotland), Lady *Marr's case*, cited in Lady *Annadale's case*. *Amb.* 82. The Court also retains some jurisdiction after the death of the lunatic, *Ex parte Grimstone*, *Ambler*. 706; *Ex parte Armstrong*, 3 *Bro. Ch. Ca.* 238; *Fitz-gerald's Case*, 2 *Sch. and Lef.* 439. (*a*).

Formerly the inquiry respecting idiots and lunatics was made by Writs to the Escheator or Sheriff as an officer to enquire of the revenues of the Crown, (*F. N. B.* p. 531: 1 *Collinson*, 117: *Ex parte Southcote*, 2 *Ves.* 401:) but these being very strict as to the wording, and as no person could be found idiot or lunatic under them, except those who came under the strict definition of either denomination, the Writs have been superseded by Commissions(*b*) of a more comprehensive character under the great seal (*c*). These Commis-

(*a*) And when the lunatic's estate is too small to bear the expense of a commission, a reference has been directed to the Master, and an order for the payment of dividends made on his report. This appeared to Lord *Loughborough* to be irregular; the precedent was only to be followed in cases of necessity. *Eyre v. Wake*, *Ves.* 179. In 1799 the expense of a commission was about £120. Lord *Talbot* admitted a defendant who had lost his memory by extreme age, to answer by guardian, the matter in demand being but small. 2 *P. Wms.* 110, and Lord *Eldon* restrained a supposed lunatic by injunction from doing certain acts, vide ante, Miss *Kendrick's case*.

(*b*) A Commission must not be sued out to be held in terrorem; if a person keep the Commission by him several years without executing it, he is guilty of a contempt, and the Commission will be discharged with costs. 2 *Atk.* 52.

An Inquisition in England is not sufficient to bind lands in Ireland; there must be an Inquisition and finding under the Great Seal of Ireland. *Duchess of Chandos' Case*, 1 *Sch. and Lef.* 301.

(*c*) A Commission of lunacy, in a proper case, will be granted on the application of a stranger. *Ex parte Ogle*. 15 *Ves.* 112. *Ex parte Ward*. 6 *Ves.* 579.

sions are directed to five Commissioners, (*a*) who, or any three or more of them, are openly to enquire on the oaths of twelve or more good and lawful men, whether the person be or not an idiot, lunatic, or *non compos*: 1 *Collinson*, 120. And they have power to issue their warrant to any person to produce the *non compos* (*b*), *ib.* 143; which, if not obeyed, will be enforced by the Lord Chancellor, and costs decreed, if required against the persons having the custody of the party. *Ex parte Southcote*, 2 *Ves.* 401. 405: see also Lord *Wenman's* case (*c*) *ubi supra*. The Commissioners have also power to summon witnesses as incident to their office. *Ex parte Lund*, 6 *Ves.* 784. (*d*)

Where there is any misbehaviour in the execution of a Commission, whether by the Commisioners, or Jury, (*Ex parte Roberts*, 3 *Atk.* 6.) the Chancellor will quash it, and direct a new Commission.

If there has been a finding against the king, there may be *a melius inquirendum*, but this is for the Crown only (3 *Atk.* 6.), which cannot traverse as the subject can.

The remedy of the subject is by traversing the inquisition, or by bringing the question to an issue at law. The right of traverse has been disputed; Sir *John Cutt's* case, *Ley.* 26. 3 *Atk.* 6.; and it was held

(*a*) The Commissioners are selected by the Lord Chancellor, who generally appoints experienced Barristers; some benefit might arise if two of the Censors of the College of Physicians were added to the commission.

(*b*) On foreign proceedings in the nature of Commissions of lunacy, see *Sylva v. Da Costa.* 8 *Ves.* 316. *Ex p. Gillam*, 2 *Ves. jun.* 587.

(*c*) In this case an Irish Peeress was committed for not producing her husband.

(*d*) The supposed lunatic should have due notice, and the Commission be executed near the place of abode. *Ex parte Hall.* 7 *Ves.* 261. for it is his privilege to be at the execution of it. *Ex parte Cranmer.*

that permission to traverse was a favour granted by the Court, and not a right; *ibid.* but it is now established to be *de jure* under the 2 *Ed.* 6. *c.* 8. § 6. *Ex parte Wragg*, and *ex parte Ferne*, 5 *Ves.* 450. 832. But the petition of a stranger for this purpose will be dismissed with costs: *Ex parte Ward.* 6 *Ves.* 579.

The manner of pleading a traverse is very short, (5 *Ves.* 452). An idiot must traverse in person. *Smithson's* case was on motion to be permitted to traverse by attorney, which was opposed; it was agreed that a traverse was given by 2 *Ed.* 6, but it must be *in propriâ personâ*: precedents were shown, but there was no case where an idiot had traversed by attorney, though many where a lunatic had: 3 *Atk.* 7. Vide *Stone's* case in *Tremaine's Pleas of the Crown*, 653, a precedent of a traverse, and for the doctrine of traversing an inquisition, vide 4 *Co.* 54. *b*; (the case of the Commonalty of the Sadlers), and 8 *Co.* 168. *Xaris Storeghtors'* case. Sir *T. Jones*, 198. *Show.* 199. *Skinner*, 45. *Moseley*, 71. 1 *Collinson*, 171. But though a lunatic may by permission of the Lord Chancellor traverse by attorney, the better rule is that he attend in person. *Amb.* 112.

The appeal in lunacy is to the King in Council, and not to the House of Lords. *Ex parte Pitt*, 3 *P. Wms.* 108: *Rochfort and Ely*, 6. *Bro. Par. Ca.* 329; *Sheldon v. Aland*, 3 *P. Wms.* 107.

If the party be found lunatic the next consideration is as to the disposal of his person and estate. "To "prevent sinister practices, the next heir is seldom "permitted to be this committee of the person; be- "cause it is his interest that the party should die. "But it hath been said there lies not the same objec- "tion against his next of kin, provided he be not his

"heir; for it is his interest to preserve the lunatic's "life, in order to increase the personal estate by "savings, which he or his family may hereafter be "entitled to enjoy. The heir is generally made the "manager or committee of the estate, it being clearly "his interest by good management to keep it in con- "dition; accountable however to the Court of Chan- "cery, and to the *Non compos* himself if he recovers; "or otherwise to his administrators, 1 *Bl. Comm.* 305. "But this rule is not in all cases adhered to, *Ex* "*parte Cockayne*, 7 *Ves.* 591: *Neal's case*, 2 *P. Wms.* "544, and *ex parte Ludlow*, *ibid.* 635." The Court will not give the custody of a lunatic to one who may make a gain of it, Lady *Cope's* case, *Cha. Ca.* 239, or allow the committee any thing for his trouble, whether as to the person (*In re Annesley. Amb.* 78) or as to the estate, 10 *Ves.* 103.

A stranger may have the custody of a lunatic, *Ch. Ca.* 239. And where no one could be procured to act as committee of a lunatic, a receiver was appointed with a salary, but nevertheless to be considered and give security as a committee. *Ex parte Warren*, 10 *Ves.* 622.

A committee may be removed on sufficient cause, as bankruptcy, but the Court will not change the custody, if the Master finds it proper with regard to the comfort of the lunatic. *Ex parte Mildmay*, 3 *Ves.* 2.

Where there are sufficient funds, a liberal application of the property of a lunatic ought to be made, in order to afford him every comfort his situation will admit, *Ex parte Baker*, 6 *Ves.* 8. *ex parte Chumley*, 1 *Ves. jun.* 296. *Dormer's Case*, 2 *P. Wms.* 265. 3 *P. Wms.* 104. His comfort, where no creditor complains, is the first object, not the heaping up of

riches for his next of kin, *ib.* The Chancellor will not make an order, even for creditors, the effect of which would be to put the lunatic in a state of absolute want, *Ex parte Dikes*, 8 *Ves.* 79; nor unless it is clear that he will have a sufficient maintenance, *Ex parte Hastings*, 14 *Ves.* 182.

We are next to consider how a party once found lunatic, can, upon recovery, resume his natural and civil rights; (*a*) for this purpose the strongest medical as well as general evidence will be necessary, not only as to absolute recovery, but temporary remissions or lucid intervals, for if a party be once found non compos, the finding is conclusive, till evidence be shown to the contrary, see *Hall* v. *Warren*, 9 *Ves.* 605: *Attorn. Gen.* v. *Parnther*, 3 *Bro. Ch. Ca.* 441: and if as to a lucid interval there must be this severity of proof, much more must the onus of proving an absolute recovery rest with the party seeking to set aside the former finding of a competent tribunal, or even to negative an established presumption;— "When the party has ever been subject to a commis- "sion, or to any restraint permitted by law, even a "domestic restraint, clearly and plainly upon him in

(*a*) A lunatic who would have been convicted of a capital crime but for the plea of lunacy, may recover, and claim his liberty, as was the case of *Hadfield*, who shot at his late Majesty, and who presented a petition for enlargement to the House of Commons. It is more than doubtful whether such applications should ever be complied with; a man restored to sanity under coercion may very quickly relapse when he becomes his own master; a moderate quantity of spirits, or exposure to other irritation, may readily produce a paroxysm which may be attended with fatal consequences, either to the party himself, or, to some other. Public policy therefore requires a continuance of the restraint, however painful to the individual. If there be one case which admits of relaxation less than another, it is where injuries of the head have produced the insanity. For the trial of *Hadfield*, see 19 *How. St. Tri.* 1281.

" consequence of undisputed insanity, the proof " shewing sanity is thrown upon him; on the other " hand, where insanity has not been imputed by " relations or friends, or even by common law, the " proof of insanity, (which does not appear ever to " have existed) is thrown upon the other side; which " is not to be made out by rambling through the " whole life of the party; but must be applied to the " particular date of the transaction. A deviation " from that rule will produce great uncertainty." Lord *Eldon* in *White and Wilson*, 13 *Ves.* 88; see also 3 *Bro. Ch. Ca.* 241. On motion that a recovered lunatic might settle his estate, Lord Keeper *North* refused the motion, but directed an issue in the Common Pleas to try the fact of the recovery, 1 *Vern.* 155. so also Lord *Eldon* in *ex parte Holylands*, 11 *Ves.* 10; but the commission may sometimes be superceded on inspection, when it is usual for the physician to attend. 1 *Fonb. Tr. Eq.* 65. or to make affidavit; but the former mode is the best.

It has been said that there are no degrees of defect of understanding save idiotcy and lunacy, *Hume* v. *Burton*, *Ridgw. Par. Ca.* 211; this may be true as relates to commissions of idiotcy or lunacy, and their consequences, but it is neither legally or medically correct in any more extended sense.

Delirium,(*a*) in the ordinary acceptation of the word,

(*a*) Delirium, a word employed by the Romans, had its origin from the process of ploughing; for when the oxen deviated from the line to be pursued, they were said to be *de lira*, out of the track; and this figure was transferred to the deviations of the human intellect, when is erred from the established course. Delirium, says Dr. Cullen, may be shortly defined,—" In a person awake, a false judgment arising from perceptions of imagination, or from false recollection, and commonly producing disproportionate emotions. It is of two kinds; as it is combined with pyrexia and comatose affections: or, as it is entirely without such combination; in the latter case it is named *Insanity*.

is the temporary derangement of intellect consequent on acute disease; it may be distinguished from lunacy or madness by the invariable presence of fever, and it ceases as its exciting causes subside; this therefore operates no permanent incapacity; for though the patient cannot be permitted to do any act, or execute any instrumeut to bind his property or estate, and would not be held responsible for any crime committed during such temporary alienation of intellect, yet he becomes competent to act, and responsable for his actions as soon as the paroxysm and its consequences are clearly over.

But there is yet another species of mental disorder which, since it does not incapacitate the patient from performing the ordinary duties and offices of life, does not subject him to the inconveniences of commission of lunacy, or exempt him from criminal responsibility; we mean those partial insanities which are marked by peculiar and unaccountable dislikes, fancies, and apprehensions, a mental idiocyncrasy on some one particular subject. (*a*)

(*a*) There frequently exists an illusion as to particular things, to which, says Dr. Male, men of genius are sometimes subject, which leads them to indulge eccentric whimsies and extravagant fancies, whilst on every other subject their perception is clear, and their conclusions correct; instances of this kind abound in every treatise on insanity, and may be traced from the earliest period of history. Pythagoras believed that he had lived in prior ages, and inhabited different bodies, and that in the shape of Euphorbus he had assisted in the siege of Troy. Tasso fancied himself to be visited by a familiar spirit, with whom he conversed aloud (*Hoole's Life of Tasso*). The hero of the celebrated romance of Cervantes, exhibits a well-drawn picture of this species of insanity; and although in a less attractive costume, how frequently do we recognise Don Quixote in every rank and description of society? If, says a celebrated writer, the circle in which this absurdity revolves is so very small as to touch nobody, a man is only what is then called *singular* in that respect; but if its orbit is extended so as to run foul of other people, he is then called a madman, and is confined.—ARMATA, Part II.

* * * Fuit haud ignobilis Argus
Qui se credebat miros audire tragædos, (*a*)
In vacuo lætus sessor plausorque theatro;
Cætera qui vitæ servaret munia recto
More; * * * * *
* * * * * *
Hic ubi cognatorum opibus curisque refectus
Expulit elleboro morbum bilemque meraco,
Et redit ad sese: Pol me occidistis, amici,
Non servastis, ait; cui sic extorta voluptas,
Et demptus per vim mentis gratissimus error.

Hor. Epis. 2, *L. ii. v.* 128.

To take out a commission of lunacy against such a man would be a greater cruelty than to cure him, and yet occasionally some legal interference may be necessary.

When a man suffers under a partial derangement of intellect, and on one point only, it would be unjust to invalidate acts which were totally distinct from, and uninfluenced by, this limited insanity; but if the act done bears a strict and evident reference to the existing mental delusion, we cannot see why the law should not also interpose a limited protection, and still less why Courts of Equity, which, in their ordinary jurisdiction relieve against mistake, should deny their aid in such cases.

Mr. *Greenwood* was bred to the bar and acted as "Chairman at the Quarter Sessions, but, becoming "diseased, and receiving in a fever a draught from "the hand of his brother, the delirium taking its "ground then, connected itself with that idea; and "he considered his brother as having given him a

(*a*) The admirers of modern Tragedy might be reasonably alarmed if their approvals should be too strictly construed into symptoms of madness.

" potion, with a view to destroy him (*a*). He re-
" covered in all other respects, but that morbid image
" never departed; and that idea appeared connected
" with the will, by which he disinherited his brother.
" Nevertheless it was considered so necessary to have
" some precise rule, that, though a verdict had been
" obtained in the Common Pleas against the will,
" the judge strongly advised the jury to find the
" other way, and they did accordingly find in favour
" of the will. Farther proceedings took place after-
" wards, and concluded in a compromise." Lord *Eldon ubi supra.*

The records of Bedlam and Saint Lukes are full of similar instances of persons insane on only one point; where that point may lead to mischief, it is proper that the party should be placed under restraint; where the aberration is harmless, it would be cruel to add imprisonment to the evil of the disorder, running also the risk of producing an augmentation of the disease; for it may safely be taken as a rule, that persons labouring under limited, will be predisposed to general insanity, and therefore it is at least necessary to watch them minutely, lest some less harmless derangement should seize them at the moment when it is least expected.

(*a*) The case of Miss *Butterfield*, which we shall have other occasion to refer to, is somewhat similar in effect to this. Mr. *Scawen* had left Miss B. a considerable legacy; but being impressed by his surgeon with the idea that she had poisoned him with corrosive sublimate, he turned her out of his house and altered his will. Mr. S. died, and so evidently by mercurial poison, that Miss B. was tried for the murder, but was acquitted, there being no evidence that she was the person by whom the poison had been administered, and a considerable probability that it had been contained in some quack medicines which Mr. S. had taken. Under such circumstances a restoration of her legacy might have been expected either from the liberality of the next of kin, or from the interposition of a Court of Equity.

LUNATIC ASYLUMS.

The very gross abuses which were formerly practised in Lunatic Assylums, long required legislative interference, till by the 14*th Geo.* 3, *c.* 49, (*a*) many of the most glaring evils were remedied. As the act itself is copied in the *Appendix*, *p.* 170, we do not now repeat all its provisions; on a few points however some comment is necessary, and more especially as an attempt has been lately made, and is likely to be renewed, to alter the law on this subject. It is proposed that, instead of confiding the choice of licensing and visiting commissioners to the College of Physicians in London, a permanent officer (and the name of the individual intended has been even mentioned) should be appointed by government to execute those duties: however high the authority of the officer of State to whom this selection is to be given, we must doubt whether he can be so competent a judge of medical proficiency as the learned body to whom the trust is now confided; and if he be not, the interest of the public is compromised, that the patronage of the minister may be increased; for, admitting that a permanent officer should be appointed, there is no good reason why his selection should not remain with a competent authority, which has not yet been found unworthy of the trust reposed in them. Our principal objection, however, is to the permanence of the appointment; under the present system much benefit arises from the occasional change of visitors, by which means the unfortunate patients are brought

(*a*) Continued by 19, and made perpetual by 26 *Geo.* 3, *c.* 91.

under the view of a greater number of medical observers than could be otherwise obtained for them. A permanent officer may soon be reconciled to abuses, and become callous to suffering; while under the visitation of a temporary Committee the subject is kept fresh and vivid with all the interest of novelty, at least in the minds of the members last elected. The period for which each member serves on the committee, (three years) and the extent of the pecuniary emolument, hold out no inducement to jobbing or canvas, even if the learned and honourable body would allow it, and a consequent security is afforded, that none will be elected from undue motives; there is always a risk of a contrary result when a well paid and permanent office is made the object of patronage; an improper person is frequently selected, and when those who have been originally well appointed become incapable by age, infirmity, or other incapacity, there is always a delicacy and difficulty in their removal.

Hitherto we have confined our observations to the Commissioners for the London district, but our objections acquire additional weight when we consider that if the proposed alteration be necessary on principle, it must extend to the country, and consequently that above fifty salaried officers must be appointed to the counties of England and Wales alone.

The bill introduced and passed through the House of Commons was thrown out in the House of Lords; and when we reflect upon the legal acumen which

(*a*) The Commissioners appointed by the College act within London and seven miles compass, and within the county of Middlesex.—Query, why not in the adjacent counties of Kent, Essex, and Surry, in which they have but a limited jurisdiction?

presides there, we feel confident that any future similar attempt would meet a similar fate. (*a*)

The 14*th Geo.* 3 exempts houses where only one patient is kept, from license and inspection; they should at any rate be registered, and some limited power of visitation be allowed to prevent abuses; the exemption may be construed at present into a license for illegal imprisonment, provided the jailor can afford a whole house to his victim. (*b*)

The custody of pauper and criminal lunatics, (*c*) and the erection of asylums for their reception, is provided for by *Statute* 48, *Geo.* 3, *c.* 96, and 59 *Geo.* 3, *c.* 127; (*d*) but no provision has yet been

(*a*) If any alteration be necessary on this subject, we should suggest the joining in Commission the legal Commissioners of Lunatics, named by the Lord Chancellor, with the Medical Commissioners, elected by the College; the former might acquire experience in judging of the ever varying forms of lunacy, and the latter would gain legal assistance in the execution of their duty.

(*b*) The case of Mary Mills in 1806, (1 *Collinson*, 530, and Annual Register, 1806) shews that some additional strictness is necessary in comparing the number of registered lunatics with the number actually confined.

(*c*) Public Lunatic Asylums may be considered as divisible into three classes, viz. 1. Those which are entirely eleemosynary, or are supported partly by an income, funded or landed, but arising from benevolence, and partly by voluntary contributions,

2. Those which are supported, partly by voluntary contributions, and partly by pensionary patients, paying according to a certain gradation of rank,

3 Pauper Lunatic Asylums founded under *Mr. Wynne's* act, at the expense of the county, and where the patients are supported by their parishes.

Most Eleemosynary Lunatic Asylums, either for want of sufficient funds, or of room to accommodate all the lunatics who apply, exclude epilepsy and idiotsy, making occasional exceptions, where the friends of the patient can afford to pay the expense of maintenance. County Pauper-lunatic Asylums are compelled to receive both these classes of patients, if considered dangerous, but not otherwise.

(*d*) In Scotland by 55 *Geo.* 3, *c.* 69. In Ireland by 57 *Geo.* 3, *c.* 106; 1 *Geo.* 4, *c.* 98; 1 and 2 *Geo.* 4, *c.* 33.

made for lunatic debtors; when it is considered how frequently the calamity of lunacy is induced by pecuniary difficulty, it is not easy to account for this omission. The observation of *Mr. Collinson* on this point may be applied to more subjects than are at present under our consideration.

MEDICAL AND PHYSIOLOGICAL ILLUSTRATIONS OF INSANITY.

As the duties of the Jurist and Physiologist in the investigation of mental derangement are distinct in their nature, if not different in their object, so shall we find that the abstract terms used to denote the form or degree of the malady have received from the two professions a somewhat different latitude of acceptation. For legal purposes the adoption of the term "*Non Compos Mentis*," from the amplitude of its construction, gets rid of those nicer distinctions and difficulties which the pathologist is bound to encounter and investigate; the lawyer only inquires whether such a state of mind exists, as actually disqualifies the person in question from conducting himself with propriety, or managing his affairs; but the medical evidence is bound not only to give his opinion upon the case, but to state the reasons which may have influenced his decision; and hence the necessity of his becoming practically acquainted with those physiological distinctions to which we have alluded. It has been stated that there are two conditions of the human mind, either of which very justly deprives the subject of the control of his person and property, and takes away from him all criminal re-

sponsibility, viz. IDIOTCY, (*Amentia*) or a total deficiency of intellectual power; and MADNESS, or a morbid perversion of it. Between these two states we shall not have much difficulty in discriminating; the idiot cannot reason at all; the madman reasons falsely; the idiot acts from animal appetency, he has no will; the madman wills, but his reason being disturbed, his actions are not compatible with the usual relations of society. (*a*)

Idiotcy may exist from birth, (*b*) (*Amentia Congenita* Cull. Syn. LXV, 1,) or it may be the effect of Old Age, *Dotage* (*Amentia Senilis* Cull. Syn. LXV, 2,) or it may arise at any period of life from the operation of various causes affecting the functions of the brain, such as epileptic fits, (*c*) intense study, intemperance, the depressing passions, especially grief, fevers, paralysis, and mania, (*Amentia acquisita* Cull. Syn. LXV, 3.) In some cases fatuity is symptomatic of another disease.

The law, as we have already stated, makes an important distinction between that species of idiotcy which is congenital, *de nativitate*, and that which may occur in after life; and upon this point, as well as upon the extent of the malady, and the probability of its cure, the medical practitioner may be called upon to give an opinion. In cases of congenital idiotcy there will not be much difficulty in pronouncing judgment, for as it arises from malformation of the cerebral organ, the prognosis must be adverse to every hope of recovery; while the characteristic phy-

(*a*) See an Essay on Madness, by *Dr. Johnstone.*

(*b*) *Reeve* on Critinism; Phil. Trans. 1808, III; and Edinb. Med. Journ. v, 31.

(*c*) It has been calculated that the thirtieth part of the Epileptic degenerate into a state of fatuity.

siognomy of the unfortunate individual is generally so striking as to enable the common observer at once to ascertain the existence of idiotcy. The vague expression of his countenance is commonly associated with an awkwardness in the gait, which would seem to depend upon a defect in the muscular powers ; there is, moreover, a degree of incontinence with respect to the excretory discharges of his body ; and owing to a carelessness in not swallowing the saliva, there is a constant drivelling from the mouth; the speech is imperfect, and the extent of this deficiency may, in general, be considered as a good indication of the degree of fatuity, for it is necessary to state, that all idiots are not of the same degree of intellectual depravity ; some possess more memory than others, and display a talent for imitation ; they will whistle tunes correctly, and repeat passages from books, which they have been taught by ear, but they are incapable of comprehending what they repeat ; under such circumstances medical evidence may be required for the purpose of obtaining an estimate of the capacity of such an individual, and upon this subject *Dr. Haslam* (*a*) has offered the following judicious remarks : "It has occurred to me, in many instances, to be consulted concerning persons whose minds have been naturally weak, or enfeebled by disease, and it always appeared that by patient enquiry, a satisfactory estimate of their capacity might be instituted : the person exercising his judgment upon this question ought particularly to ascertain the power of the idiot's attention ; since his knowledge of objects, and his memory of them, will depend on

(*a*) Medical Jurisprudence, as it relates to Insanity, by *John Haslam*, *M. D.* London, 1817.

the duration of his attention; it will also be indispensably necessary to investigate his comprehension of numbers, without which the nature of property cannot be understood; if a person were capable of enumerating progressively to the number ten, and knew the force and value of the separate units, he would be fully competent to the management of property; if he could comprehend that twice two composed four, he could find no difficulty in understanding that twice, or twain ten, constituted twenty. This *numeration* also presumes he comprehended that so many taken from ten, or subtracted, which is the converse, would leave so many as the remainder. Without such capacity, no man, in my own opinion, could understand the nature of property, which is represented by numbers of pounds, shillings, and pence. The same imbecility of mind is often produced in adults, and in those of advanced age, by paralytic or epileptic attacks, and from various affections of the brain, and requires the same accurate investigation to determine on the competency of such persons to be entrusted with the management of themselves and affairs."

In cases of *Amentia acquisita*, our prognosis must be directed by different circumstances: the faculties of a person may only be in abeyance, and may revert to a state of sanity, either spontaneously, or from judicious treatment, or they may be only partially affected. (*a*) It however deserves notice that, in extent of mortality, the most fatal of all the states of mental disorder is *Amentia acquisita;* it has been computed that in the French hospitals a full moiety

(*a*) See *Burrows's* Inquiry into certain errors relative to Insanity, page 164.

of the fatuous die; at the same time, it appears from the reports of lunatic asylums, that this disorder is sometimes cured.

Idiots are, in general, harmless; their deportment being characterised by a timidity that guards them from any mischievous attempts, either upon themselves or upon other persons; to this general rule, however, exceptions not unfrequently occur; as, for instance, in the unfortunate case of the idiot in Cornwall who strangled, and afterwards burnt the body of, an old woman who had for some years superintended his person. In some cases of accidental fatuity, a considerable disposition to obesity manifests itself, and the subject becomes lethargic.

Authors who have treated on the subject of *Insanity* have anxiously attempted to frame a definition of the malady; and, by compressing into a short sentence its prominent and distinguishing phenomena, to establish a fixed and essential character. In this attempt each author has fundamentally differed, and to enumerate their plans would be only to expose their failures; the truth is, that the varied and mutable phenomena of insanity will ever mock the grasp of the nosologist; instead therefore of endeavouring to discover an infallible definition, it will be of much greater importance to investigate the circumstances which should guide the medical witness in a decision that may annul a man's dominion over property, involve his contracts and other acts which otherwise would be binding, and take away his responsibility for crimes. Modern authors, according to the system of the Grecian writers, have generally divided mental derangement into two classss—*Mania* (*a*) and

(*a*) μανία from μαίνομαι *I rage.*

Melancholia; (*a*) the former being distinguished by a state of extraordinary excitement, the latter by great depression; although they are frequently convertible affections.

Mania may be said to be a state of mental alienation, accompanied by an unusual ferocity in language and deportment, and by a comparative insensibility to ordinary stimuli.

Melancholia is a form of insanity which is always attended with some seemingly groundless, but very anxious fear, by which the person is plunged into a gloomy and desponding state, that not unfrequently leads to the commission of suicide.

The approaches of insanity have been as variously described by different authors, as the characters by which the malady itself is to be distinguished; indeed the precursory symptoms of mania are extremely indefinite and variable. *Dr. Haslam* observes, that "the attack is almost imperceptible; some months usually elapse before it becomes the subject of particular notice, and fond relatives are frequently deceived by the hope, that it is only an abatement of excessive vivacity conducing to a prudent reserve and steadiness of character; a degree of apparent thoughtfulness and inactivity precedes, together with a diminution of the ordinary curiosity concerning that which is passing before them; and they therefore neglect those objects and pursuits which formerly proved sources of delight and instruction; the sensibility appears to be considerably blunted; they do not bear the same affection towards their parents and relations; they become unfeeling to kindness, and

(*a*) μελαγχολία, from μελας, *black*, and χολὴ *bile*; black bile being considered as the cause of the malady.

careless of reproof; if they read a book, they are unable to give any account of its contents; sometimes, with stedfast eyes, they will dwell for an hour on one page, and then turn over a number in a few minutes; their sleep is disturbed, and they awake in the morning in a state of great disquietude and anxiety; as the malady becomes farther developed, the symptoms are less equivocal, the unhappy objects become loquacious and disposed to harangue, and decide promptly and positively upon every subject that may be started; soon after, they are divested of all restraint in the declaration of their opinions of those with whom they are acquainted; their friendships are expressed with fervency and extravagance, their enmities with intolerance and disgust. They now become impatient of contradiction, and scorn reproof; for supposed injuries they are inclined to quarrel and fight with those about them; at length suspicion creeps upon the mind, they are aware of plots which had never been contrived, and detect motives that were never entertained."

This picture, however, must be only regarded as displaying the ordinary occurrences which precede the attack; its approaches are sometimes distinguished by a very different train of symptoms; the late *Dr. John Monro (a)* has remarked that "high spirits, as they are generally termed, are the first symptoms of this kind of disorder; these excite a man to take a larger quantity of wine than usual; and the person thus affected, from being abstemious, reserved, and modest, shall become quite the contrary; drink freely, talk boldly, obscenely, swear, sit up till midnight, sleep little, rise suddenly from bed, go

(*a*) A Reply to *Dr. Battie's* Treatise on Madness, 8 Lond. 1785.

out a hunting, return again immediately, set all his servants to work, and employ five times the number that is necessary; in short, every thing he says or does betrays the most violent agitation of mind, which it is not in his power to correct; and yet, in the midst of all this hurry, he will not misplace one word, or give the least reason for any one to think he *imagines* things to exist that really do not, or that they appear to him different from what they do to other people. They who see him but seldom, admire his vivacity, are pleased with his sallies of wit, and the sagacity of his remarks; nay, his own family are with difficulty persuaded to take proper care of him, until it becomes absolutely necessary, from the apparent ruin of his health and fortune."

The patient under the influence of the depressing passions will exhibit a train of symptoms altogether different; the countenance wears an anxious and gloomy aspect, he is little disposed to speak, he retires from the company of those with whom he formerly associated, secludes himself in obscure places, or lies in bed the greater part of his time; frequently he will keep his eyes fixed on some object for hours together, or continue them an equal time 'bent on vacuity;' he next becomes fearful, and conceives a thousand fancies, often recurs to some immoral act which he has committed, or imagines himself guilty of crimes which he never perpetrated; believes that God has abandoned him, and with trembling awaits his punishment; *(a)* frequently he becomes desperate

(*a*) Religious fanaticism is so frequently attendant upon mania, that a question has arisen respecting their relative dependance upon each other, as to whether the former be the cause or the effect of the latter? It seems probable that both these opinions are correct, for, as *Dr. Burrows* very justly observes that, as religion influences the internal man

and endeavours by his own hands to terminate an existence which appears to be an afflicting and hateful incumbrance. *(a)*

The approaches of Insanity, are, however, not always slow and progressive: the unhappy victim is sometimes seized without any warning, and where crimes have been perpetrated under such circumstances, it becomes extremely embarrassing both to the judgment of the physician and to the decision of the court; each case, however, must rest upon its own particular merits duly to be weighed and considered both by the judge and jury, lest, to use the expressions of *Sir Matthew Hale*, "there be on the one side a kind of inhumanity towards the defects of human nature, or, on the other side too great an indulgence given to great crimes."

Before we proceed to consider the several questions which may arise for the consideration of the medical witness, in the discharge of his forensic duties, we shall offer a few observations upon a point which has frequently given rise to discussion—Whether the existence of insanity cannot be equally, or in some cases, more satisfactorily established, or disproved, by witnesses who are not of the medical profession? by persons, for instance, who have had opportunities of observing the individual, where the same advantages have not been in the power of the practitioner. To this we may reply, that the opinions of the generality of persons on the subject of insanity are ex-

more than all the passions collectively, so it may be a *cause* of insanity; while, on the other hand, there is no doubt, that a lunatic may imbibe a religious as well as any other hallucination, and yet be insane from a cause very contrary to religious.

(*a*) *Haslam*—Op. citat.

tremely vague, and frequently very erroneous, *(a)* and are commonly the result of those glaring exhibitions, those caricatures of disease which the stage represents, or romances propagate; the ordinary observer can hardly be convinced of the existence of insanity, without some turbulent expression, extravagant gesture, or phantastic decoration; while on the other hand he is too apt to infer a state of insanity from those whims and eccentric habits between which the medical practitioner, from daily communication with deranged persons, can alone know how to discriminate; thus was *Democritus* accused by the people of insanity, but when *Hippocrates*, by public request, had a conference with the philosopher, he declared

(*a*) *Dr. Haslam* ventures an opinion upon this subject, which appears to us so plausible that we shall introduce it to the notice of our readers. "The ordinary class of persons, who are usually summoned to act as jurymen, have in common with the mass of mankind, who have wanted the means of direct information, adopted the popular and floating opinions on the subject of insanity. That dramatic representations have forcibly operated for this purpose there is little reason to doubt: and some of the plays of *Shakspeare* exhibit many of the forms which this malady is supposed to assume. Among such characters none have more strongly fastened on the general mind than the outrageous *Lear*, and the distracted *Ophelia*; the subtile craziness of *Hamlet* leaves it doubtful whether his alienation of mind be real or conventionally assumed, and to the ordinary observer conveys more of fiction than the avowed counterfeit of *Edgar*. Romances, the literary food of the idle and thoughtless, abound in descriptions of intellectual calamity; but these artificers of fancy, like many unskilful performers, are too prone to strain the loftier impressions of feeling, and distort the energies of passion into mental derangement. Something of affecting interest may be excited by the weaknesses and wanderings of *Maria*, but *Cervantes* has exhibited the happiest and most correct picture of systematic insanity; although the vehicle of chivalry in which it is conveyed, has, to our own countrymen, blunted its interest as a physiological portrait of madness; his sallies have provoked mirth, and so keen is the relish for the ridiculous, that in the luxury of laughter, the reader has forgotten the tribute of commiseration."

that not *Democritus*, but his enemies were insane. There is moreover a class of maniacs who are so cunning as to deceive those who are not acquainted with the peculiar hallucinations under which they labour; *Lord Erskine* was thus unable to detect the insanity of a lunatic who fancied himself to be Jesus Christ, until he had received the medical assistance which the presence of *Dr. Sims* afforded him. (*a*) It is unnecessary to urge any farther the necessity of medical testimony upon such occasions, we shall therefore proceed to consider the different points to which it will be more usefully directed.

Q. 1. Whether the person be actually insane? and what are the proofs of his derangement?

Q. 2. Whether the symptoms are of such a nature as to suffer the individual, with propriety, to retain his liberty, and enjoy his property?

Q. 3. Whether there has been any lucid interval, and of what duration?

Q. 4. Whether there is a probable chance of recovery; and in case of convalescence, whether the cure is likely to be permanent?

Q. 1. *Whether the person be actually insane—and if so, what are the proofs of his derangement?*

It has been very justly observed, that to constitute insanity it is not necessary to exhibit the ferocity of

(*a*) See *Erskine's* Speeches, vol. iv.

a wild beast, nor to perform the antics of a buffoon; the most ordinary observer can tell when a person is furiously mad, *(a)* but, in many cases, "*such thin partitions do the bounds divide*," that all the skill and discernment of a medical practitioner is required to establish the fact of insanity. It is to such cases as are more likely to become subjects of legal investigation, that the following observations particularly apply. *Sir Matthew Hale* says, "there is a *partial* insanity, and a *total* insanity; the former is either in respect to things, *quoad hoc vel illud insanire*, where persons are perfectly rational, except on some one particular subject." This fact is universally admitted, constituting a form of mental alienation to which *M. Esquirol (b)* has bestowed the name of *Monomania*, and of which every work on insanity abounds with examples. It is in such cases that the value of medical sagacity and experience becomes apparent, and the full developement of the real state of the patient's mind and opinions will, in some instances, require considerable time and patience. "It is nearly impossible," says *Dr. Haslam*, "to give any specific directions for conducting such an examination as shall inevitably disclose the delusions existing in the mind of a crafty lunatic; but in my own opinion it is always to be accomplished, provided sufficient time be allowed, and the examiner be not interrupted. It is not to be effected by directly selecting the subjects of his delusion, for he will immediately perceive the drift of such enquiries, and endeavour to evade, or pretend to disown them; the purpose is more effectually answered by leading him to the origin of his

(*a*) *Male's* Juridical Medicine, edit. 2, p. 208.
(*b*) Dict. des Sciences Med. Art. *Folie.*

distemper and tracing down the consecutive series of his actions and association of ideas; *in going over the road where he has stumbled, he will infallibly trip again.*" There is, says *Dr. Male*, (*a*) a madness which shews itself in words, and another in actions; a lunatic may be coherent in conversation, but insane in conduct; he may be rational when under the restraint of a mad-house, but when released, and at liberty to act according to the impulse of his hallucination, will shew by his conduct that he is really insane.

Although it cannot be difficult to form a diagnosis between the ebullitions of passion, the extravagance of intoxication, or the delirium of fever, and the violence of deportment arising from insanity, yet it may in some cases be not easy to discriminate between this latter condition and that which is associated with excessive enthusiasm; nor is it always easy to discriminate between eccentricity and insanity; do we not, says *Dr. Male*, see a wretch disinherit his own children, who have committed no fault, and betow his wealth upon a stranger? another who prefers poverty and rags, and communion with vagabonds, to the social intercourse and proffered kindness of his friends and relations? yet who shall pronounce them to be insane? that they are so, there can be no doubt, and their disease is perhaps of the most unfortunate character, for all their other actions being consistent with sound reason, it is difficult to convince a jury of their insanity, and to divest them of the power of heaping ruin upon their families, and disgrace upon themselves.

The bodily marks which distinguish the insane

(*a*) Op. citat. p. 208.

are, a peculiar cast of countenance, familiar to those versed in the malady; a quick, oftentimes protruded and glistening eye; the body is generally costive; in some cases the insane person is enabled to sustain cold with impunity, and he is insensible to the agency of ordinary stimuli; and the stomach and bowels, from deficiency of irritability, require large doses of medicine to move them; among the physical phenomena of insanity, *M. Esquirol* observes that few are more constant or remarkable than want of sleep, and that peculiarly disagreeable odour from the body, as well as the excretions of the patients, which impregnates the clothes and bedding. They are devoured with a burning internal heat; and generally have a voracious appetite, and are afflicted with pain in some organ or part, especially the head, the chest, or the abdomen, which the unhappy sufferers are ready to attribute to the malevolence of their enemies.

In deciding upon that species of insanity which is termed *Melancholia*, we must be cautious in not confounding its symptoms with those of *Hypochondriasis*, which is to be regarded as strictly a bodily malady; the following remarks of *Dr. Cullen* may tend to direct our judgment upon this interesting subject.

"Hypochondriasis I would consider as being always attended with dyspeptic symptoms; and though there may be, at the same time, an anxious melancholic fear, arising from these symptoms, yet while this fear is only a mistaken judgment with respect to the state of the person's own health, and to the danger to be from thence apprehended, I would still consider the disease as hypochondriasis, and as distinct from the proper melancholia. But when an anxious fear and despondency arise from a mistaken judgment with respect to other circumstances than those of health,

and more especially when the person is at the same time without any dyspeptic symptoms, every one will readily allow this to be a disease widely different from both dyspepsia and hypochondriasis."

With respect to the phantoms (*a*) which occasionally appear to the hypochondriac, and are described by him as having all the semblance of reality, *Dr. Haslam* remarks, that although a person may labour under a delusion, by seeing and hearing those things which do not exist, yet if his belief in their reality is not subscribed, but, on the contrary, he knows them to be delusions,

"A false creation, proceeding from the heat-oppressed brain,"

and he is persuaded that his perception is beguiled, no inference in favour of the existence of insanity ought to be deduced; if, however, he should believe in their reality, and commit an act in consequence of such a conviction, he may be justly considered insane—*it is the belief that, physiologically, constitutes the disorder.*

Q. 2. *Whether the symptoms are of such a nature as to suffer the individual, with propriety, to retain his liberty, and enjoy his property?*

We have already offered some observations upon this point, *(page 302)*; the medical practitioner in delivering an opinion that may involve the liberty of the person, cannot well be too guarded in his evidence. As each case must rest upon its own merits, the sub-

(*a*) This is well illustrated by the remarkable case of Nicolai of Berlin, as cited by *Dr. Ferriar* on Apparitions, p. 41, and also by *Dr. Haslam* in his "*Medical Jurisprudence, as it relates to Insanity*," p. 25.

ject scarcely admits of any general elucidation beyond that which we have already endeavoured to bestow, and the plan of our work must of necessity preclude the more minute details. We must, however, here observe, that coercion should never be employed but as a protecting restraint—to guard the patient from doing mischief to himself, or offering violence to others; and for this purpose the straight-waistcoat is generally sufficient: formerly, coercion was employed with a degree of severity that amounted to vindictive punishment, recourse was even had to the whip, and stripes were actually inflicted by medical direction; while asylums for the reception of the insane, were considered as prisons for safe custody and punishment, rather than as hospitals for the treatment and cure of this most dreadful malady.

Q. 3. *Whether there has been any lucid interval, and of what duration?*

This is a question which a medical witness is always called upon to answer. By the term *lucid interval*, we are not to understand a *remission* of the malady, but a total suspension of it—a complete, although only a temporary, restoration of reason. The question is generally beset with difficulties, and requires all the penetration and experience of the physician to arrive at a safe conclusion; for in many cases the patient is enabled for a limited period to converse rationally, and where he is desirous of carrying any particular plan into execution, to dissemble so completely as to impose with success upon his attendants; of which the following case, related by *Dr. Has-*

lam, (*a*) may serve as an excellent illustration. "A lunatic having received, or fancied he had received, an injury from his keeper, at the lunatic asylum at Manchester, threatened to be revenged, for which he was punished by confinement; he was afterwards a patient in Bethlem hospital, and gave *Dr. Haslam* an account of the transaction, of which the following is an abbreviation. 'Not liking this situation, I was induced to play the hypocrite; I pretended extreme sorrow for having threatened him, and, by an affectation of repentance, induced him to release me; for several days I paid him great attention, and lent him every assistance; he seemed much pleased with the flattery, and became very friendly in his behaviour towards me; going one day into the kitchen, where his wife was busied, I saw a knife; this was too great a temptation to be resisted; I concealed it, and carried it about with me; for some time afterwards the same friendly intercourse was maintained between us, but as he was one day unlocking his garden door, I seized the opportunity and plunged this knife, up to the hilt, in his back." There is a species of insanity which has been called *intermittent*, in which the patient is perfectly rational for a considerable interval; the malady often recurs two or three times in a year, and lasts several weeks, the subject of the hallucination being always the same. (*b*)

Q. 4. *Whether there is a probable chance of recovery; and in case of convalescence, whether the cure is likely to be permanent?*

The *prognosis*, or means of ascertaining the probable event of mental derangement, is founded on

(*a*) *Haslam* on Insanity.

(*b*) See *Male's* Juridical Medicine, p. 220.

the consideration of many different circumstances, such as the particular modification of the malady; the violence of the symptoms; the duration and frequency of the attack; its causes; the age, sex, constitutional temperament, and hereditary dispositions of the affected individual; the general state of his health; and the particular nature of his bodily maladies; upon each of which we shall offer a few observations. (*a*) It has been remarked that those affected with furious mania recover in a larger proportion than those who suffer under the depressing influence of melancholy, but that when the maniacal and melancholic states alternate, the hope of recovery is farther diminished. The probability of cure is also more or less, according to the duration of the disease; when, however, it has acquired a systematic character, it becomes very difficult to remove it, so that after it has continued upwards of a year, patients at public asylums, as in Bethlem and Saint Luke's, are pronounced incurable, and treated accordingly. In considering the causes of mania, we must class them in two divisions—*Predisposing*, and *Exciting*. Among the former of these causes stand *hereditary predisposition; injuries of the brain;* (these also belong to the

(*a*) *Dr. Burrows*, in his "Inquiry into certain errors relative to Insanity," has taken a comprehensive view of this important question, in which he attempts to prove that *a very large proportion of the insane recover the perfect use of their understanding*, and in elucidation he has submitted a comparative table of cures, comprising returns from all the public lunatic asylums in England, and likewise all the returns from Scotland that are accessible. To this work we must refer the reader. The statistical branch of this subject has been greatly elucidated by *Dr. Powell*, the Secretary to the Commissioners for licensing mad-houses; and we are happy in being authorised to state that the public may shortly expect an important publication from the same author, in which the views of Dr. Burrows will probably be duly examined.

class of exciting causes); *certain bodily diseases;* and a *peculiar temperament.* Among the latter we may first enumerate those of a PHYSICAL nature, as *frequent intoxication; fever; mercurial medicines,* largely administered; *the suppression of periodical or occasional discharges and secretions; parturition; injuries to the head from external violence, &c.* The MORAL causes include those emotions which are conceived to originate from the mind itself, and which, from their excess, tend to distort the natural feelings; or, from their repeated accessions, and unrestrained indulgence, at length overthrow the barriers of reason and established opinion; such are the *gusts of violent passion,* and the *protracted indulgence of grief;* the *terror* impressed by erroneous views of religion; the *degradation of pride; disappointment in love;* and *sudden fright.*

Of Hereditary disposition we may observe, that there does not appear to be any malady more obviously dependant upon its influence than that of madness (*a*); for even if one generation escape, the taint is presumed to cling to the succeeding branches until, either by admixture with a purer stock, or by education or management, it is neutralized or drained away. In forming a prognosis it therefore becomes the first object of inquiry, whether any branch of the patient's family has ever manifested any symptoms of the disease; for where this is made out, our expectations of permanent recovery must be slender; and even should the patient become convalescent, he will be liable to a relapse from every fresh exposure to the exciting causes. Injuries about the head may be considered as both the predisposing and exciting

(*a*) *Dr. J. Johnstone* on Madness.

causes of insanity; for a fracture of the cranium has been known to produce disorder in persons who had never betrayed the least obliquity previous to the accident, and whose families had never manifested the slightest disposition to the malady. Although mental derangement has been observed in persons of every habit and temperament, yet there is certainly a complexion which may be said to predominate in these cases; *Dr. Haslam*, for instance, has stated, that out of 265 patients in Bethlem hospital, 205 were found to be of a swarthy complexion, with dark or black hair; the remaining 60 having a fair skin, and light brown or red hair. Among the most powerful exciting causes of derangement of intellect in those predisposed to the malady are to be classed the moral causes which produce mental distress and uneasiness; at the eventful era of the French revolution, and for some years after, the lunatic establishments of France were inundated by its victims; and *Dr. Burrows* observes, that the annals of insanity will satisfactorily shew that there never was, in any country, a sudden increment of insane persons, without some powerful and evident excitation, physical, moral, theological, or political. (*a*) I have, says *Zimmerman*, (*b*) had occasion to see all the great hospitals in Paris, and have distinguished in them three kinds of maniacs: the men who had become so through pride; the girls through love; and the women through jealousy.

The use of ardent spirits or wine to a person predisposed to insanity, is always dangerous; under the

(*a*) An Inquiry, &c. p. 64.

(*b*) A Treatise on experience in Physic, vol. 2, p. 292; see also *Dr. Crichton's* valuable work on Mental Derangement.

same circumstances a long course of mercurial remedies has been found mischievous. The suppression of accustomed evacuations is also a frequent cause of mania, and the restoration of them not unfrequently removes the mental affection. Where there is in women an hereditary disposition to mania, it is frequently called into action immediately after parturition ; in such cases, the prognosis is favourable ; (*a*) on the other hand, it has been remarked that in our climate, women are more frequently affected with insanity than men ; and it has been considered very unfavourable to recovery, if they should be worse at the period of menstruation, or have their catamenia in very small or immoderate quantities. We have already noticed local injuries of the head among the predisposing causes ; we may also observe in this place, that they not unfrequently prove an exciting one ; in the case of *Hadfield* the insanity was occasioned by a blow on the skull. DISSECTION has thrown little or no light on the pathology of insanity ; it must be admitted that a peculiar structure of the brain will predispose to madness, but there may exist many alterations in the structure of these parts too minute for the eye to observe, or the scalpel to expose. In some cases, however, the brain of the maniac displays an obvious deviation from the healthy appearances, as we learn from the testimonies of *Chiarugi* in Italy, *Greding* in Germany, and from *Dr. Haslam's* work in this country. The more general appearances would seem to consist in excessive determination of blood to the brain, with enlargement of its vessels ; and effusion of fluids into its cavities ; the membranes

(*a*) During ten years 80 patients of this description were admitted into Bethlem hospital, 50 of whom perfectly recovered.

of the brain have also been found variously altered from their healthy state; ossifications have been observed on the *dura mater;* the *tunica arachnoidea* has appeared thickened, and more or less opaque; and the *pia mater* has not unfrequently appeared inflamed and turgid with blood; besides which *Dr. Haslam* has recorded an appearance of air in the vessels of this membrane; nor is it uncommon to discover effusions of a watery fluid between these membranes. The medullary substance, when cut into, has seemed to contain more blood than usual; the consistence of the branular mass has moreover been stated, by different anatomists, to recede from its natural state in cases of insanity. *Bonetus*, in his *Sepulchret. Anatom.* has asserted that the brain of maniacs is so dry and friable that it may almost be rubbed into powder; but with respect to this we are disposed to doubt. *Morgagni*, (*a*) however, tells us that he has generally found the brain of such persons of considerable hardness; and *Mr. John Hunter* has found it so tough as even to exhibit some degree of elasticity; *Dr. Baillie* has also remarked, that when these changes take place in the brain, the mind is at the same time deranged, there being either mania, or lethargy, or the person is much subject to convulsive paroxysms. Other cases might be adduced in which the brain was found on dissection to have a consistence preternaturally soft. With regard to these phenomena, the experienced anatomist will readily coincide with *Pinel*, that although they may occur in the brain of the maniac, yet that they have frequently been found where no mental affection had ever betrayed itself; in addition to which we may remark that

(*a*) De Sedibus et Causis, Epist. I, 8, 6.

it does not necessarily follow that the morbid appearances disclosed by dissection had existed during the progress of the malady; it has been very truly observed by an intelligent reviewer, (*a*) that a person may have, for ten years, frequent attacks of epilepsy; he may become at last maniacal, and die comatose. Upon dissection, marks of inflammation and of serous effusion are observed in the brain and its membranes; but can we suppose that any such lesion of structure existed during even the latter half of the epileptic state?

(*a*) See a review of a work entitled "*A Treatise on the Diseases of the Nervous System, Part I; comprising Convulsive and Maniacal Affections, by* J. C. PRICHARD, M.D. &c. London, 1821, p. 426. Medical Repository, Feb. 1, 1822.

OF NUISANCES, LEGALLY, MEDICALLY, AND CHEMICALLY CONSIDERED.

There are in law many kinds of nuisance; but we shall confine ourselves to the consideration of those only which can be made the subject of medical or chemical investigation; these are such as are directly or indirectly detrimental to health, whether general or individual; or are destructive to comfort; or injurious to property: obstructions to the free course of air, light, and water, volumes of smoke, and noisome smells fall under the two first descriptions, while the fumes of some manufactures combine every species of annoyance.

The question, how far the salubrity of the atmosphere may be affected by the effluvia of particular manufactories, is one that the medical practitioner is often called upon to decide; and upon such an occasion let him beware that his judgment be not swayed by the fastidiousness of the surrounding inhabitants, nor warped by the clamours of invidious rivals or interested opponents; as a man of science and integrity he is called upon to decide between two parties equally valuable to the state,—between the health and comfort of the citizen, and the prosperity of the manufacturer.

The manufactories and occupations which have been considered exceptionable, for reasons to be hereafter enumerated, may be arranged under four divisions, viz.

1. *Those, during whose operation gaseous effluvia, the products of* PUTREFACTION *or* FERMENTATION, *escape into the atmosphere, and are either*

noxious from their effects upon animals, or insufferable from the noisomeness of their smell: such as the steeping of flax, and hemp; (1) the manufacture of catgut; slaughter-houses; starch manufactories (2); tanneries (3); the feeding of swine; and the several occupations of horse slaughterers (4); skinners; fell-mongers; curriers, &c. &c.

II. *Those, where, by the* ACTION OF FIRE, *various principles are evolved, and diffused in the form of vapour, or gas; the inhalation of which is not only disagreeable to the senses, but injurious to the health;* as the process of brewing (5); the formation of various acids (6); the incineration of animal substances, as practised by the manufacturers of hartshorn; Prussian blue (7) makers; roasters of horn for lanthorns (8); glue manufacturers; varnish makers (9); soap boilers (10), and renderers of tallow (11); smelting houses (12); gas works; brick kilns; turpentine distillers, and rosin makers, &c. &c.

III. *Those, which are capable of yielding waste liquids, that poison the neighbouring springs and streams,* as gas works (13); starch manufactories; dying-houses, &c. &c.

IV. *Those trades, whose pursuit is necessarily accompanied with great noises,* as those of copper-smiths; anchor-makers; gold-beaters; tinmen; trunk-makers; proof-houses, (where cannons are proved): the tilting of steel; forging bar iron; flatting-mills; (*a*) &c. &c.

(*a*) On the manufactures and occupations above alluded to, we have to make the following observations.—

Against these nuisances there are various remedies : by action or indictment at law, by injunction in

(1) As the vegetable matter undergoes the putrefactive process in stagnant pools, the effluvia which arise are necessarily highly pernicious ; while the waters become so poisonous as to destroy the fish contained in them, as well as to prove injurious to cattle that drink of them. In Italy the process of steeping flax or hemp is only permitted at the distance of some leagues from a town. ZIMMERMAN tells us that the effluvia from this source have been known to occasion a malignant fever, which proved fatal to the family in which it first began, and afterwards spread its contagion through a whole country. LANCISI observes, that dangerous fevers are often prevalent at Constantinople, which owe their source to the hemp brought from Cairo, and which is put wet into the public granaries, and suffered to ferment during the summer. At Helmstedt there is annually in the autumn, when the flax is steeped in the Aller, an epidemic dysentery that prevails for several weeks.

(2) The manufacture of starch can scarcely be considered, in itself, a nuisance, for although it be necessary to produce the acetous fermentation, in order to remove from the fecula any colouring matter, yet if sufficient attention be paid to the operation, and the water be properly let off from the settling-vessels, no inconvenience can arise. A nuisance, however, of considerable magnitude may incidentally attend these manufactories, from the number of swine which are constantly kept by the starch maker, and the profit of which forms a part of his speculation, and which is so considerable that he can generally afford to sell the starch at prime cost, relying wholly upon the former trade for his profits.

(3) The process of tanning involves several operations of a very nauseous description; the hides, for example, undergo incipient putrefaction in order to loosen the epidermis, and to render the hair and other extraneous matter easy of separation from the true skin.

(4) The peregrinations and vicissitudes of fate to which the horse is doomed during life has repeatedly furnished subjects of reflection ; but few are aware to how many economical purposes his carcase is converted after death, and to how many noisome processes it gives rise. The dealers in dead horses, or *nackers*, as they are termed, begin their mercantile anatomy by taking off the shoes and disposing of them to the farrier ; the skins are next stripped off, and sold to the tanner ; the carcase is then cut into pieces, and boiled in large cauldrons of water, in order to extract the fatty matter, which, being skimmed off from the surface of the liquor, is "*rendered down*" and packed in cases for the soap-boiler, or the manufacturer of cart-grease. Whatever remains after this operation supplies the venders of dog's and cat's meat with a dainty article of sale ; at length the views of the greedy trader are directed to the bones of this no-

equity, and sometimes by the summary abatement of the party injured.

ble animal; a number of persons find employment in chopping them into small fragments, from which the marrow is then extracted by a boiling for several hours, and added to the fat already obtained from the carcase; the dry remains are employed in the production of hartshorn by distillation; and after this process is finished, they are removed from the still, and calcined to whiteness, in order to be mixed with clay for the manufacture of porcelaine; or they are consumed for the formation of ivory-black.

(5) The intolerable nuisance of a public brewery arises from the volumes of carbonaceous matter with which it overwhelms the neighbourhood. We shall therefore take this occasion to offer the remarks which we are prepared to make respecting the effects of smoke on the inhabitants of the metroplis, and on the methods which have been suggested for the mitigation of the evil. And upon this subject we entirely agree with an intelligent reviewer, that, after all, it is not a few chimneys attached to steam engines that infect the air of London with smoke; every house is busy in the work of contamination, although less observed, because administered by separate vents, and in divided doses.

In the year 1661, a work was published by the celebrated JOHN EVELYN on the subject of this grievance, entitled, "FUMIFUGIUM; *or the Inconveniences of the Air and Smoake of London dissipated; together with some remedies humbly proposed to his sacred Majestie, and to the Parliament now assembled.*" The above "short discourse" has become exceedingly scarce, but the reader will find an interesting account of its contents in the Journal of Science and the Arts. It is certainly a curious coincidence that the attention of John Evelyn should have been first excited on this subject by "a presumptuous smoake issuing from one or two tunnels near Northumberland house, and not far from Scotland yard," —the very seat of the plots of our modern fumifugists! After adverting to the situation of the metropolis "built upon a sweet and most agreeable eminency of ground at the north side of a goodly and well conditioned river, toward which it has an aspect by a gentle and easie declivity," he proceeds to animadvert upon that "hellish and dismall cloud of sea coale, which is not only perpetually imminent over her head, but so universally mixed with the otherwise wholesome and excellent air, that her inhabitants breathe nothing but an impure thick mist, accompanied with a fuliginous and filthy vapour, which renders them obnoxious to a thousand inconveniences, corrupting their lungs, and disordering the entire habit of their bodies." It appears that in Evelyn's time, brewers, dyers, lime-burners, and salt and soap-boilers, were the principal nuisances; and "since then," says the editor of the new edition of the FUMIFUGIUM in 1772, "we have a great increase of glass-houses,

If the injury be general (*ad commune nocumentum omnium ligeorum*) the proper remedy is by indict-

founderies, and sugar-bakers, to add to the black catalogue, at the head of which must be placed the fire engines of the water-works at London bridge and York-buildings, which leave the astonished spectator at a loss to determine whether they do not tend to poison and destroy more of the inhabitants by their smoke and stench than they supply with water;" to which sooty list, says the reviewer, in the Journal of Science and the Arts, above cited, "what astonishing additions have been made, within the last thirty years, in and about London? How many new water-companies, and smoke-producing manufactories have been added to the catalogue? A newspaper cannot now be printed, nor a pound of meat minced for sausages without a steam-engine; to the same smoky servant the druggist resorts to grind his rhubarb and to sift his magnesia,(*a*) and upon all possible occasions the services of the other elements is superseded by that of fire." With respect to the deleterious effects of smoke upon the health of the inhabitants of our mighty city, much difference of opinion has existed; amongst Foreigners the air of London has the reputation of being extremely unhealthy, on account of the exhalation which arises from the use of coal; it excites in strangers, says *Zimmerman*, a considerable heat in the stomach, and sometimes a spitting of blood, and even nervous fevers which terminate in palsy. (*Experience in Physic*, *vol.* 2, *p.* 137). It is hardly necessary for us to make any observation upon a prejudice so absurd and unfounded; *Evelyn* also seems, in our opinion, to attribute more evils to the smoke than can be well substantiated; "I report myself," says he, "to all those who have been compelled to breathe the air of other countries for some years, if they do not now perceive a manifest alteration in their appetite, and clearness of their spirits, especially such as have lived long in France and the city of Paris." Although we are not disposed to consider the smoky atmosphere of London as so destructive to health as some have imagined, we are not prepared to state that it is entirely harmless. Children are certainly less healthy in this city than in the country; and the superior rapidity with which iron becomes oxi-

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(*a*) By a visit to Apothecaries' Hall, or to any of the great manufacturing chemists, the stranger will be astonished at the number and utility of the applications of steam to the processes of Pharmacy.

M. Dupin, when speaking of the immense mechanical force set in action by the steam-engines of England, gives the following illustration of its amount:—The great pyramid of Egypt required for its erection the labour of above 100,000 men for twenty years; the action of the steam-engines in England, which are, at most, all managed by 36,000 men, would be sufficient to produce the same quantity of work, in 18 hours!!!

ment, 1 *Inst.* 56, 3 *Bl. Com.* 219, 4 *Bl. Com.* 167; and an indictment will lie even though there be

dized, indicates the existence of atmospheric impurities. The phenomena of vegetation also offers another demonstration of the same fact; *Evelyn* has the following curious remarks upon this circumstance: "That the smoake destroys our vegetation is shewn by that which was by many observed in the year 1644, when Newcastle was besieged, and blocked up in our late wars, so as through the great dearth and scarcity of coals, these fumous works were either left off, or diminished, divers gardens and orchards planted even in the very heart of London, (as in particular, my Lord Marquis of Hertford in the Strand; my Lord Bridgewater's, and some others about Barbican) were observed to bear such plentiful and infinite quantities of fruits, as they never produced the like before, or since, to their great astonishment; but it was by the owners rightly imputed to the penury of coales, and the little smoake which they took notice to infest them that yeare."

Although some difference of opinion may exist, as to the extent of the evil, in a medical point of view, we must all concur in agreeing upon the necessity of some plan by which it may be diminished; we shall, therefore, proceed to offer some remarks upon the proposals which have been made, at different times, for obtaining so desirable an object.

Mr. Evelyn's plan consisted in the removal of all smoking manufactories from London, "five or six miles down the river Thames, or at least, so far as to stand behind that promontory jutting out and securing Greenwich from the pestilential air of Plumstead marshes." He then proposes gardens and plantations in and about the metropolis, and enumerates a variety of fragrant plants, suited to our climate, and calculated to sweeten and improve the air. (*a*)

In the year 1682, Mr. *Justell* communicated to the Royal Society, "*An account of an Engine that consumes smoke, shewn lately at St. Germains Fair in Paris.*" *Dr Leutmann*, of Wirtemburgh, described in his "Vulcanus Famulans," a stove which draws downwards, so that the contrivances of the *Marquis de Chabannes*, and others who have burnt their smoke by a downward draught of air were not original. *Dr. Franklin* in 1785 (*Memoirs of the Life and Writings of Benjamin Franklin, vol.* iv. *p.* 408) suggested a mode of burning smoke; but to the illustrious *Mr. Watt*, we are more particularly indebted for the first important hints upon this subject; his patent may be seen in the *fourth volume of the Repertory of Arts* for 1796, *p.* 226; and the great engines at the Soho ma-

(*a*) It is supposed that the lime-trees in St. James's Park owe their existence to the suggestion of Evelyn.

nufactory have all along been worked without smoke; it is therefore not a little extraordinary, as a late reviewer has justly observed, that in the Report from the Committee of the House of Commons " to enquire how far it may be practicable to compel persons using steam engines and furnaces in their different works to erect them in a manner less prejudicial to public health and public comfort," and upon which report the bill of last session is founded, no notice is taken of *Mr. Watt's* suggestions and inquiries. In the Parliamentary Report, to which we have just alluded, there are two inventions for the destruction of smoke, which appear to have principally occupied the attention of the Committee, and which profess to accomplish the object, with a very considerable saving of fuel, viz :

Mr. Brunton's Fire Regulator. In this patent a newly constructed fire-place is applied to the engine boiler, containing a circular grate, which is made to revolve slowly upon its axis; the fire upon this grate is fed in front by a kind of hopper continually delivering small coal, which, from the rotatory motion of the grate itself, becomes equally spread upon its surface, so as to maintain a thin fire, and a sharp draught; the coal is thus rapidly decomposed and burned; the smoke at first produced having to pass across the grate, and over the red hot, and already coaked fuel.

Patent of Messrs. Parkes of Warwick.—The principal agent in this improvement is a current of air, admitted just beyond the end of the fire-place, by means of an aperture which may be increased, or closed at pleasure, and which the patentee term an "*air valve.*" A small fire is first made to burn brightly at the back of the grate; coals are then filled in towards the front, in which direction the fire gradually spreads; their smoke necessarily passes over the clear fire, where it becomes sufficiently heated to constitute flame, as soon as it meets with the current of air entering at the valve; and a striking experiment with this apparatus consists in alternately shutting and opening the air-valve, which is accompanied by the alternate appearance and disappearance of the smoke.

Instead, however, of insisting upon any form of fire-place, greater benefit would arise from an enactment respecting the height of chimneys; our intelligent reviewer, of whose remarks we have so frequently availed ourselves, observes, that by conveying black smoke, and other pernicious fumes into a capacious and very lofty chimney, much of the noxious matters that otherwise escape into the atmosphere are decomposed and precipitated or condensed within; of the truth of which, the

2, c. 8, § 20; *Regina v. Wigg*; 2 *Salk.* 460; *Ld. Raym.* 1163. But it is otherwise of an *offence created*

chimney of the grand-junction engine, at Paddington, and that of the West Middlesex water-works, at Hammersmith, offer striking illustrations; when these machines are at work, the former produces little smoke, while the latter inundates the neighbouring gardens with perpetual showers of solid soot; and yet the only difference is in the relative altitude of the two chimneys; the boilers being, in all respects, set and constructed alike. A chimney from 150 to 200 feet would in most cases prove effectual, and the expense might be considerably lessened by making one shaft receive all the tributary fumes of many flues. But to return to the nuisance of breweries, from which we have made so long a digression; it is probable, that the smoke from these chimneys could not be remedied either by Brunton's or Parkes's patent, but the increasing the altitude of the chimney would seem to promise a mode of relief; we are also to look to the employment of steam as a substitute for fires; high pressure steam has been very extensively employed for this purpose in Whitbread's brewery, and the smoke has in consequence sustained a very perceptible diminution.

(6) Sulphuric acid makers are continually indicted; and it would appear that by a scientific improvement in the process, the escape of the sulphurous acid, which constitutes the grievance, might to a great degree be obviated. How does it happen that, notwithstanding the cost of the materials necessary for the production of sulphuric acid, is in France at least double what it is in England, the French can afford to sell the article 25 per cent. cheaper than the English? the answer is obvious,—the great part of the materials are sent off into the air, in the form of *sulphurous acid*, and *nitrous gas*, to the annoyance of the neighbouring animals and vegetables, and the ruin, too often, of the proprietor. See *Journal of Science and the Arts*. In a report drawn up in the year 1806 by Guyton Morveau, and Chaptal, upon the subject of injurious manufactories, by command of the minister of the interior, it is declared that the distillation of acids can only prove dangerous from want of due precaution.

(7) The manufacture of Prussian blue is necessarily attended with highly offensive vapours. The first part of the process consists in mixing hoofs and tup's horns with Russian or American potass, in large iron stills, to which heat is gradually applied, until the vessel become red hot; the animal matter and alkali being thus fused into a mass is laded out into iron pans, where it concretes into solid blocks, technically called *metals*

by statute, then the remedy must be in the form prescribed by the statute.

(8) The operation of unfolding the cow's horns by the application of heat is attended with a terrible stench; the trade in lanthorn leaves was formerly very considerable with Russia; but it was nearly annihilated by an edict of Catherine; the less flexible parts are made into combs; and the tips of the horns are sent to Birmingham for the manufacture of buttons.

(9) Owing to the viscid nature of the materials, it is impossible to make varnish without burning the animal matter, which occasions a stench of the most insufferable kind; and is so suffocating, that very lately two workmen lost their lives in a manufactory of this article in Gray's-inn-lane.

(10) The animal matters employed in this process give rise to a stench which has repeatedly formed the ground of indictment. The most nauseous part of the trade, however, consists in concentrating the waste lees, for the purpose of obtaining by fusion in a reverberatory furnace, an article which is called BLACK ASH, and which contains, amongst other salts, the *sulphuret of soda*.

(11) "Renderers of tallow" are persons who convert the butcher's fat, &c. into tallow.

(12) The process of smelting different ores is the most injurious of all the operations of art, although to the senses it may be less nauseous than those in which animal matter undergoes decomposition by heat, or putrefaction. These evils, however, by the ingenious application of various mechanical and chemical expedients, have in many instances been very materially diminished, and in others, entirely obviated; this is strikingly illustrated in several large works for smelting lead ores; and the proprietors of the Hafod copper works, at Swansea, are at present engaged in an experimental inquiry into various plans which have been proposed for diminishing, or preventing the ill effects which arise from the metallic fumes. Acquainted as we are with the liberality and science of these gentlemen, we have little doubt of the result; and we mention the circumstance in this place in order to recommend similar efforts on the part of persons engaged in other works; and at the same time for the purpose of preparing the reader for some observations which we shall take occasion to offer, on the subject of the law of nuisance, in relation to its operation in stopping works of such national importance. It would be premature to enter into any detailed account of the chemical means which promise a successful resource on this occasion; we shall only observe that the great mischief seems to arise from

Though indictment is a suit of the crown, and a general pardon will excuse the fine inflicted on conviction for a nuisance, it will not prevent the abatement of it. *Rex et Regina* v. *Wilcox*, 2 *Salk.* 458; see also *Dewell* v. *Sanders*, cited 16 *Vin. Abr.* 42, 45.

But if the nuisance be not general, but particular, then an indictment will not lie; yet the individual

the quantity of arsenic, so universally present in the ores of copper; and there is reason to hope, from the experiments already made by Mr. J. H. *Vivian*, that *Lime* may be usefully employed in preventing its volatilization. The author of the present note has had ample opportunities of investigating the effects of arsenical fumes, which arise from the burning-houses in Cornwall, and from the great copper works carried on at Hayle in that county, and they appear to be especially pernicious to graminivorous quadrupeds; horses and cows lose their hoofs; and the latter animals are not unfrequently seen, in the vicinity of the works, crawling along on their knees; they are also subject to a cancerous affection in their tails; and milch cows loose their milk. The herbage also suffers materially from the poisonous smoke, especially in wet seasons; corn is blighted in the ear, and never perfects its seed, unless care be taken to select at that period such ore as will yield but little sublimate. Cabbages do not appear to suffer in the least; nor are potatoes materially injured; and it is not the least curious circumstance in the history of these works, that the apple-trees in their vicinity grow and bear fruit without sustaining any of those ill effects which we should have anticipated, but, on the contrary, the arsenical fumes appear to destroy all the insects which usually infest such trees, and their trunks exhibit a cleanness which would delight the horticulturist. The men employed in these works are occasionally affected with a cancerous disease in the scrotum, similar to that which infests chimney-sweepers; it is however probable that this arises from the immediate application of the excoriating material made by the hand in the act of rubbing the part. A similar affection was a short time since observed in a manufactory, in which the workmen were engaged in making an arsenical solution for a green dye, used in calico printing.

(13) Gas Works. We have lately learnt, that a method has been adopted to get rid of the nuisance which has arisen from the residual liquor from these works, by evaporating it in pans, placed in the ash-pit of the furnace, and by which the iron bars of the fire-place are at the same time kept cool, and are therefore much longer preserved. The contrivance may be seen at the gas works in Worship-street.

aggrieved may have his action on the case, 3 *Bl. Com.* 220; *Bull. N.P.* 26; *Esp. N.P.* 635. Individuals also are in some cases permitted of themselves to abate a nuisance, 3 *Bl. Com.* 5; *Lodie* v. *Arnold*; 2 *Salk.* 458; 16 *Vin.* 40. In *Rex* v. *Rosewell*, only a small fine was set upon the defendant convicted on indictment of a riot, committed while pulling down some part of a house, it being a nuisance to his lights; see case 2 *Salk.* 459, and authorities there cited; also *Rosewell* v. *Prior*, *ib.* 460; but contra, see cases where they may not; *Lord Mansfield's* judgment in *Cooper* v. *Marshall*, 1 *Bur.* 259.

The old writs, the assize of nuisance, F. N. B. 183, and *Quod permittat prosternare*, F. N. B. 124, *Palmer* v. *Poultney*, 2 *Salk.* 458, are now out of use, but might be resorted to on an extreme occasion, 3 *Bl. Com.* 220.

Courts of Equity will also interpose by injunction in cases of nuisance, to restrain and prevent an injury for which courts of law, in many cases, could not give an adequate compensation, 1 *Fonb. Tr. Eq.* 31; *Coulson* v. *White*; 3 *Atk.* 21; *Atty. Gen.* v. *Doughty*, 2 *Ves.* 453. And though the Court of Chancery, on application to have an assumed nuisance (as a mill-dam which had been destroyed) restored to its original state, has refused an injunction; yet to accelerate the determination of the right it has directed the defendant to bring an action of trespass, and every thing to be admitted on both sides necessary for trying the mere right. *Birch* v. *Sir Lyster Holt*; 3 *Atk.* 725; 2 *Ves.* 414; on this principle see also *Lord Teynham* v. *Herbert*, 2 *Atk.* 483, and cases there.

Noxious, dangerous, or highly disagreeable trades and manufactures are nuisances, except when exer-

cised in accustomed places ;(*a*) thus an ancient brewery (*b*) though in the midst of a populous town, is no actionable nuisance, 2 *Lil. Abr.* 246 ; *Jones* v. *Powell; Palm.* 536 ; *Hutt.* 153 ; because it shall be supposed to have been erected when there were no buildings near ; but if a brewery or glass-house (*Rex et Regina* v. *Wilcox*, 2 *Salk.* 458) be newly erected, it is a nuisance, 1 *Hawk. Pl.* 199 ; *Jones* v. *Powell*, *Hutton* 135, for the smoke is at least destructive of comfort and may be injurious to health ; much more then is a smelting-house a nuisance when, in addition to dense and continued volumes of smoke, the poisonous fumes of sulphur, lead, antimony, and arsenic, not only taint the atmosphere, but so affect vegetation as either to destroy it altogether or poison the cattle that feed upon the adjacent herbage ; or where the vapours injure fruit trees, 4 *Ed.* 3, and 4 *as. pla.* 3, cited in a pamphlet A. D. 1639 in Serjeant *Hill's* collection of law pamphlets,

(*a*) There are certain districts so devoted to manufactories that, in the general assemblage, it would be extremely difficult to identify the noisome effects of any particular one. A curious illustration of this fact lately occurred in two indictments ; the one preferred against Apple, the proprietor of a prussian blue manufactory ; the other against Moore, black-ash manufacturer ; both of whose works were situated in Seward-street, Goswell-street. The counsel for the defendant, in his cross-examination of the witnesses for the former prosecution, artfully drew from them an account of the noisome vapours of the black-ash maker ; while in the latter trial, the same barrister made the witnesses declare the extreme stench of the prussian blue manufactory ; so that in both cases the defendants obtained a verdict—because in neither case could the evidence for the crown unequivocally prove from which of the manufactories the nuisance complained of arose.

(*b*) But query, whether the ancient existence of an inconsiderable brewery, which from the small quantity of fuel consumed, was not a nuisance, should have warranted the augmentation of those immense factories which now obscure and suffocate some of the most populous districts in London.

vol. 5; see also 1 *Roll. Abr.* 89; 1 *Burr. R.* 260. Now though the business of smelting is highly necessary, and it may appear hard to restrain a man from making the most profitable use of his lands and premises, yet public health is of primary importance, (*a*) and these maxims of law must ever be remembered: *Prohibetur ne quis faciat in suo, quod nocere possit alieno: et sic utere tuo ut alienum non lædas. Palm.* 536; 9 *Co. Rep.* 58.

(*a*) It is impossible to question the justice and policy of this maxim as a general principle of legislation; "Salus Populi Suprema Lex,"—but there are circumstances which ought to exempt certain establishments from the operation of the common law of nuisances; we allude to those grand national works for smelting ores, which could not be closed without fatally affecting our national prosperity, and compromising the fate of the Arts themselves. No consideration, however, ought to admit them within the range of a great city, or a populous district; but where they have acquired a kind of right to toleration by time and necessity, in a remote place, they ought to continue in the enjoyment of their advantages without disturbance; but in return for such an immunity, the public has a right to expect every exertion on the part of the proprietors, in order to obviate, as far as in them lies, the diffusion of the fumes, throughout the neighbourhood, by improving the construction of the furnaces, and by the adoption of such chemical and mechanical expedients as may be capable of diminishing the evil. We are led to these observations in consequence of learning with regret that attempts have been frequently made to compel the proprietors of the Hafod copper works, before alluded to, to abandon them; and while the present sheet was in the press, we learnt that the Grand Jury had found a true bill against one of these establishments. We shall in consequence offer a few remarks, with a view of shewing the necessity that exists of introducing a protecting clause into the law of nuisances, in favour of certain established mining and smelting districts; and we must here observe, that the inhabitants which congregate in the vicinity of great manufactories of this description, are always, in the first instance, allured to the spot, by the prospect of gain; and it was not to be expected that persons who have been thus aggrandised, should, as soon as their riches confer independence and fastidiousness upon them, turn round and revile as insufferable and danger-

Next to the fumes of metallic poisons we may rank the vapours of sulphuric, nitric, muriatic, and other acids, when carelessly prepared in large quantities, *Rex* v. *White and Ward, Burr. 333.*

ous, that very power to which alone they owe any personal consequence to which they may now be entitled. But the strongest arguments will be found in the great importance of these works in a national and commercial point of view; and on this account we shall present the reader with some statistical arguments of considerable weight, viz: The quantity of coals consumed in the copper works in South Wales, and exported in the vessels which convey the ore from Cornwall to them, is calculated at 200,000 chaldrons annually; and the amount paid for it to the collieries at from £100,000 to £110,000. The number of persons employed in raising and delivering it is not less than 1,500. The number of persons employed in the smelting works is about 1,500, and the yearly amount of wages paid to them is not less than £50,000. The value of the materials consumed annually in these works may be taken at £20,000. The amount paid for the freight of ore and materials may be stated at £25,000. The number of vessels employed in the conveyance of the same may be about 150, and supposing them to be manned by five seamen on the average, they give occupation to 750 mariners. Thus a sum of not less than two hundred thousand pounds sterling is annually circulated in Glamorganshire and the adjoining county, and employment given to 3750 individuals.

If the families and dependants of these persons are taken into the amount, a population of 12,000 souls at least derive their support from the smelting establishments. The consequences which would result from depriving so great a number of persons of the means of subsistence may be more easily conceived than described. These estimates refer only to the mere direct expenditure of the smelting works and their immediate dependants—the consequences of the stoppage of these works to the immense number of persons employed in the mines in Cornwall—between 50 and 60,000 souls—would be completely ruinous.

These considerations it might be supposed are sufficiently apalling to deter those who are engaged in the present measures carrying on against one of the principal smelting companies by prosecution: an object which is likely to be productive of consequences so destructive of the welfare of thousands, in the annihilation of a trade of the utmost general importance to the country, whether as relating to its internal or external affairs, to its manufactories, its colonies, or its ships: a trade in which upwards of two millions of pounds sterling are embarked. That

It was said to be no nuisance to a neighbourhood for a butcher or chandler (*Rankett's* case) to set up their trades among them; but it may be by such or other tradesmen (as a dyer, *Hutt.* 136) laying stinking heaps at their doors; in other cases the necessity of the thing shall dispense with the noisomeness of it. (*a*) *Jacobs' Law Dict. tit.* Nuisance; 2 *Rolle's Abr.* 139. But query, how the necessity is to be proved? for though the sale of meat and candles be necessary in a town, the one need not be slaughtered, nor the other manufactured among ordinary dwelling houses; the one is offensive to the feelings of humanity and disgusting to the senses, the other is so disagreeable to the olfactory nerves, that few persons can pass a tallow-chandlers on a melting-day without experiencing some degree of nausea.

In all the best regulated cities of Europe the slaughter-houses are confined to particular situations, generally without the walls; (*b*) the general neatness and propriety of English towns leave little to be derived from foreign example, but in this instance we are defective. Some years since, a pamphlet was published against the nuisance of street butchers, but evidently without effect; perhaps the mere vending of meat in

it ever should enter into the mind of any human being to prosecute measures which could by any possibility lead to consequences so disastrous, is almost inconceivable, and the only excuse that can possibly be offered for them (if excuse it can be called) is, that they are so entirely occupied by the consideration of their personal convenience and fancied interest, as to be incapable of forming a just conception of the momentous business they have undertaken.

(*a*) Si homme fait *Candells* deins un vill, per que il cause un noysom sent al inhabitants, uncore ceo nest ascun nusans, car le *needfulness* de eux dispensera ove le noisomness del *smell.* 2 *Rolle Abr.* 139.

(*b*) A fine for every beast slaughtered within the walls of Exeter was held good under a bye-law. *Cowp. R.* 269.

open shops may not be attended with any evil sufficient to counter-balance the convenience; but where the beasts are also slaughtered in ordinary situations, the nuisance is very considerable, and in many instances likely to be injurious to the health of the neighbourhood; for though the nuisance is not so apparent in some of the streets as before the act of the *57th Geo. 3*, (*a*) yet the accumulation of filth behind the houses is likely to be the greater from the very circumstance of its being remote from public observation.

Though in making these observations we recommend general markets, and selected situations, for the exercise of particular trades, rather than that they should be dispersed throughout the town; yet we must observe, that unless these districts are made the subject of peculiar regulation, the public evil might be encreased in intensity by accumulation, much more than it had been diminished by segregation. In places for the sale of animal food cleanliness is very generally attended to, as a contrary practice would greatly increase the tendency to putrefaction; self-interest is here the best possible guard against nuisance, but this motive does not so immediately apply to other cases, (*b*) and we accordingly occasionally observe the ut-

(*a*) By this act, 57 *Geo.* 3, *c.* 22, §. 64, it is enacted that if any person shall throw, or suffer to be thrown or remain, any ashes, dust, dirt, rubbish, offal, dung, soil, blood, or other filth, or shall kill, slaughter, scald, dress, or cut up any beast, &c. in or near any street, (within the act) as that any blood or filth shall run or flow over the pavements, such person, on conviction before any justice of the peace, shall forfeit and pay not less than forty shillings, or more than five pounds for each offence.

(*b*) We are very sorry to instance the state of Covent Garden Market as an exception to the rule of neatness and cleanliness, for which the English have been celebrated; the quantity of putrescent vegetables allowed to accumulate there is as disgraceful to the persons who have the

most disregard of public convenience in the conduct of many disgusting manufactures.

The dictum of *Rolle* that usefulness shall dispense with noisomness has, however, been broken in upon by many more modern decisions; in *Morley* v. *Pragnel*, *Cro. Car.* 510, an innkeeper brought an action against the defendant for erecting a tallow-furnace so near his inn that many of his guests left the house, and he recovered damages for the injury; *Tohayle's* case was then quoted; he had erected a tallow-furnace in the Strand, which, on indictment, was ordered to be abated, (see also 1 *Hawk. P. C.* 463 where *Rolle's* doctrine is questioned.)

As to the physical effect of each particular species of bad smell, there may always be some doubt, and much contrariety of evidence is to be expected; this however is certain, that those stenches which may be innocuous to persons in full health, are by no means so to invalids or persons of irritable nerves or stomachs; and to pregnant women they are generally allowed to be dangerous. (*a*)

control of the market as it is disgusting to those who have occasion to resort to, or even pass by it. *Dr. Rogers* relates that a very malignant fever having appeared at Wadham college in Oxford, and carried off a considerable number of people, and that the physicians ascribed it to the putrefaction of a considerable heap of cabbages, which had been thrown from the neighbouring gardens, on a spot of ground contiguous to the college.

(*a*) Dr. Garthshore has observed that women, during the period of utero-gestation, on account of the increased irritability of the system at that period, are frequently affected by odours, that at any other time would not have produced the slightest impression; and this experienced practitioner was of opinion that the dangerous convulsions which sometimes seize the patient towards the end of a tedious and difficult labour, may arise from the long continued inspiration of the air of a close and unventilated chamber crowded with attendants and friends.

This observation suggests to us another circumstance which, though it has never, we believe, been legally treated as a nuisance, well

Habit has also a powerful operation in diminishing the deleterious effects of such effluvia; instances daily occur in which the fumes of certain manufactories affect strangers in the most violent degree, while the artisans engaged in the occupations which produce them; or the persons accustomed from their residence to the full force of their influence, scarcely experience any inconvenience; nay, in some cases, they would even seem to derive a degree of benefit from such an atmosphere, and to suffer whenever they quitted it; (*a*) like the criminal recorded by Sanctorius, who fell sick when taken out of an infected dungeon, and did not recover until he had been returned into the impure air to which he had been so long habituated. We apprehend that the history of the French bastile would furnish the physiologist with some extraordinary illustrations of the power of habit over the functions of the body. We introduce these remarks for the purpose of shewing, that persons immediately engaged in an indictable manufactory, are not only morally, but physically, incom-

deserves to be so considered; we allude to the public exposure of disgusting objects for the purpose of exciting charity. The vagrant laws are evidently ineffective for the purpose of removing them, nor has the Society for the Suppression of Mendicity been much more successful; those who have observed the pertinacity with which some sturdy vagrants persecute pregnant females, obtruding on their view some ulcerous sore, stump, or deformity, will agree in the necessity of some more vigorous measures than have been yet employed for the abatement of this species of nuisance.

(*a*) The Author well remembers being sent for on a professional visit to the great copper works at Hayle, in Cornwall, and being told by a man, who had been a smelter for more than half a century, that the occupation was remarkably healthy, and that those who were engaged in it escaped the ordinary maladies of the season and country; "The smoke," said he, "kills all disorders, especially Fevers." This anecdote is at least sufficient to shew the force of their prejudice.

petent to give evidence in proof of the extent of the mischief it may create : in addition to which it must not be forgotten, that in those works in which are carried on the fusion and volatilization of metals, the workmen employed in the interior of the building escape the deleterious fumes which pass up the flues, and spread desolation over the surrounding district. These views will moreover enable us on many occasions to reconcile the conflicting testimony which is so often given on trials of nuisance, without in the least impeaching the veracity or sincerity of the individual witnesses engaged in the contest.

But for the purposes of legal redress it is not necessary that the smell should be unwholesome ; it is enough if it renders the enjoyment of life and property uncomfortable : see *Lord Mansfield's* judgment in *Rex* v. *White and Ward*, 1 *Burr. R.* 333; so in *Aldred's* case, 9 *Co. Rep.* 57, which was for keeping hogs; *Regina* v. *Wigg*, 2 *Salk.* 460, 2 *Lord Raym.* 1163. In *Street* v. *Tugwell*, for keeping seven pointers close to the plaintiff's house, whereby he was annoyed by the noise and smell, the jury found for the defendant ; and though *Lord Kenyon* would not grant a new trial, he said another action might be brought for the continuance. *Mic. Term*, 41 *Geo.* 3; 2 *Selw. Ab.* 1006.

Though the obstruction (*a*) of a fine prospect is no nuisance (*Aldred's* case, 9 *Rep.* 58; 3 *Salk* 247, 459; *Attorney Gen.* at the relation of *Gray's Inn Society* v. *Doughty*, 2 *Ves.* 453) yet as an action lies for

(*a*) The increase of the metropolis may be deemed a medical, though it cannot be restrained as a legal nuisance; this has been long felt but is still without remedy. In 1580 Queen *Elizabeth*, by proclamation, prohibited new buildings within three miles of the city of London,

hindering the wholesome air, 9 *Rep.* 58, query whether building a house across the end of a street,

and commanded the Lord Mayor and officers to regulate the number of inmates in each house, which had become excessive. 2 *Stowe's* London, 436. About this time it was made matter of complaint that "Moorfields, which formerly the citizens used for their health and "pleasure to walk in and take the air, began now to be enclosed, to "the hinderance of these healthful and useful walkings." The limits of a Sabbath-days journey will not afford the modern citizen a breathing place; what effect this privation may have on the moral as well as physical state of the poorer inhabitants of this overgrown capital we will not attempt to discuss, and as the existing evil is without remedy, we will content ourselves with a hope that some means may be found to prevent its increase. An act of parliament limits the distance from the new road within which no buildings may be erected; an extension of this principle to all other roads five miles round London (*exceptis excipiendis*) and the imposition of double taxes on all houses to be erected after a certain date, within a limited circuit, (with a decreasing ratio as the radius increases) might possibly obviate the evil without very materially interfering with the value of property. The capital is metaphorically called the heart of the empire; we wish to provide it with sufficient lungs that it may circulate more florid and healthy blood to the extremities.

Since this note was written we have seen, in a collection of the statutes passed in the time of the commonwealth, an act for the preventing of the multiplicity of buildings in and about the suburbs of London and within ten miles thereof, *An. Dom.* 1656, the preamble of which says, "Whereas the great and excessive number of houses, edifices, outhouses, and cottages, erected and new built in and about the suburbs of the city of *London* and the part thereunto adjoining, is found to be very mischievous and inconvenient, and a great annoyance and nuisance to the commonwealth; and whereas, notwithstanding divers prohibitions heretofore had and made to the contrary, yet the said growing evil is of late so much multiplied and increased that there is a necessity of taking some further and speedy course for the redress thereof;" certain fines and penalties are therefore directed to be levied on all new houses which have not *four acres* of land continually used with them, and commissioners are appointed to carry the act into execution. The exceptions in this statute may serve to elucidate the subject, Clare market, Lincoln's Inn Fields, Covent Garden, Shoe lane, and other places now in the centre of the town are exempted from the penalties, on account of the charges or covenants to which the owners had been or might be liable.

whereby it becomes less wholesome, whether by want of air or by stagnation of damp vapours, is or is not a nuisance? and whether actionable or indictable. For though the rule originally laid down as to indictable nuisances is, that they must be *ad commune nocumentum omnium ligeorum*, yet if it be to the injury of a great many, as to the inhabitants of a whole street, that is enough; *Rex* v. *Roupel*; K. B. Kingston Assizes, 59 *Geo.* 3; and *Sir Ed. Coke* says, "there is a writ in the register necessary to be put "in execution for the wholesomeness of the air in "London, and all other cities." *De vicis et venellis mutandis*, 4 *Inst.* 252.

The abatement of those nuisances which affect the atmosphere is of the highest importance, for it is not optional what air we shall breathe; and next to them we may rank those which affect running streams or other waters.

"Lourlulary, or lourgary, is an offence when any "cast any corrupt thing appoisoning the waters in or "about *London*, compounded of these two words "*lour* corruption, and *laron* a thief or felon, and if "any die by reason of such offence within a year "after, it is felony; and extendeth to all other "cities." Burgs. &c. 4 *Inst.* 252; (see also 8 *Geo.* 1, *c.* 26, and several modern paving acts.) And by an old statute 12 R. 2, *c.* 13, which if it be (as asserted) obsolete, well deserves to be revived in some form, none shall cast any garbage, dung, or filth, into ditches, waters, or other places within or near any city or town, on pain of punishment by the *Lord Chancellor!!* at discretion!! as a nuisance. The jurisdiction has been rather strangely given according to modern notions, but the provision of the act appears to be wise, and might even now be useful.

To steep stinking sheep-skins (2 *Strange* 686) or other noxious, noisome, or poisonous thing is indictable. It is a nuisance, for which an action will lie, to erect a lime-kiln (*a*) so near a fish-pond that it infects the water, and the fish die, or to make a drain which brings in unwholesome food to them, 16 *Vin. Abr.* 33; (*b*) and if it be on a navigable river it is indictable, as in the recent case of the *King* at the relation of the city of *London*, conservators of the *Thames* against *Munroe* and *Evans*, proprietors of certain gass-works, the refuse from which being discharged into the river is said to have destroyed the fish; (*c*) the defendants were found guilty. *Croydon Assizes*, 1821.

Noises, whether by day (*Tenant* v. *Jones* K. B. Feb. 15, 1821) or by night (*Rex* v. *Smith*, 2 Str. 704) are nuisances, for these not only render life uncomfortable, but are prejudicial to the health of invalids; there is a case in equity where an agreement not to toll a church-bell was enforced by injunction.

But it is said the fears of mankind, however reasonable, will not create a nuisance; therefore it is no nuisance to erect a building for the purposes of inoculation, (*Jac. Law Dict. Anon Dec.* 18, 1752; 3 *Atk.* 21, 720, 750.) In this case a motion was made for an injunction to stay the building of a house for the purpose of inoculating for the small-pox in Cold Bath Fields; for the motion the following cases

(*a*) The Severn lately having overflown its banks into a lime-pit, a very considerable number of salmon and other fish were killed by it.

(*b*) Old Book of Entries, fol. 406, edit. 1595, action upon the case brought for annoying a piscary with a gutter that came from a dye-house. *Hutt* 136.

(*c*) The smelts and flounders have been thus destroyed in the immediate vicinity of London.

and authorities were cited, 2 *Roll. Abr.* 139, (the case of *Browne* for dividing a messuage) *Hawk. Pl. c.* 75, s. 11; 1 *Lutw.* 169. But *Lord Hardwicke* said, that upon an indictment of that kind there had been lately an acquittal at Rye, and refused the injunction.

This decision does not appear to be reconcileable with the cases and statutes respecting the keeping of gunpowder, (*a*) which is a nuisance by the reasonable fears of possible danger, (*Rex* v. *Taylor*, 2 *Str.* 1167, 1169.) So also it was a nuisance, indictable, to divide a house in a town for poor people to inhabit in, by reason whereof it will be more dangerous in the time of sickness and infection of the plague, (2 *Roll. Abr.* 139); and this possible evil has often been realised in the obscurer parts of *London* in cases of typhus, and more frequently in the liberty of *Dublin* where the narrowness of the streets, and the alleged operation of the window-tax have excluded the possibility of proper ventilation. It is therefore more reasonable to suppose that the utility of the establishment in question in the above cited case, and the comparative openness of the situation prevailed over the fear of possible risk, and that the principal objection was the exercise of the summary jurisdiction of a court of equity in a matter more properly triable at law, rather than from an opinion that a receptacle for highly infectious diseases in a populous neighbourhood was not a nuisance.

(*a*) By stat. 12, *Geo.* 3, *c.* 61, not more than 50lbs. may be kept in any one place within London and Westminster, or three miles circuit, nor within one mile of any city, borough, or market town, or within two miles of any of the King's palaces or magazines, or one half mile of any parish church.

But if the disorders for which it is open be not highly infectious, an hospital is certainly no nuisance. In the case of *Rex* v. *Mac Donald*, 3 *Burr. L.* 1645, it was moved that an indictment against the defendant, for converting his house into an hospital for taking in and delivering lewd, idle, and disorderly unmarried women, should be quashed; *Lord Mansfield* took notice of the narrow principles of the prosecutors, (the parish, for that they were thereby burthened with bastards) and expressed his surprise how such a bill could ever be found, asking "by what "law is it criminal to deliver a woman when she is "with child."

Whether a new comer can have an action for a nuisance has been doubted, for it was his own act that he came into the neighbourhood, and *volenti non fit injuria;* but on the other hand see *Westborn* v. *Mordaunt*, *Cro. Eliz.* 191; 2 *Leon.* pl. 129, p. 103; Espin. N. P. 637; and if a man come into possession of the premises by descent, or operation of law, or a clergyman to his parsonage, it would appear that he may at any rate have his action.

It must be observed that every continuance of a nuisance is held to be a fresh one, and therefore a fresh action will lie; and very exemplary damages will probably be given, if after one verdict against him the defendant has the hardiness to continue it; (*Westborn* v. *Mordaunt*, 2 *Leon. pl.* 121; *Beswick* v. *Cunden Hill*, *Cro. Eliz.* 402; *Bull*, *N. P.* 75; *Espin*, *N. P.* 637). And it is a continuance, though the premises constituting the nuisance be let to an under-tenant subsequently to the verdict against the first tenant for years for the erection, for he transferred it with the original wrong, and his demise affirms the continuance of it; he hath also rent as a

consideration for the continuance, and therefore ought to answer the damage it occasions. *Rosewell* v. *Prior*, 2 *Salk.* 460, and cases there.

There are other things which may be called nuisances in transitu, such as the removal of night-soil, garbage, soap boilers-lees, (the waste lees are the residual liquor after soap-boiling), and other very stinking refuse ; all these should be restrained (as some already are) to certain hours of the night.

OF IMPOSITIONS.

Under this head we shall comprehend the subject of *Feigned Diseases*, and that of the *Adulterations of Food.*

Feigned, or Simulated Diseases.

There are several objects, for the accomplishment of which persons are induced to simulate the existence of disease; such as, for obtaining military exemptions and discharges; or certain civil disqualifications; for the purpose of deriving parochial relief, or pecuniary assistance from benefit societies; or the comfortable shelter and retreat of an hospital; for exciting compassion and obtaining alms; for creating public interest and curiosity; for procuring release from confinement, or exemption from punishment; and, lastly, for the dishonest intention of recovering unjust compensation from some person selected for accusation, as the author of the pretended calamity.

The subject has been very ably treated by different authors on Medical Jurisprudence, especially by *Mahon* and *Foderé*, whose opportunities for observation during the severe operation of the conscription laws, must have been numerous and instructive; in our own country the work of *Dr. Hennen*, on the principles of Military Surgery, will be found to contain some very valuable information upon the detection of such impostures.

The diseases which have been selected for the accomplishment of any of the purposes above enumerated are extremely numerous, although there are

some few which may be said to be more generally preferred on such occasions.

In general the medical enquirer will not have much difficulty in detecting such impositions; although there are cases where the investigation becomes a subject of extreme delicacy and importance, as in those of persons reporting themselves sick, and unfit for military service, or *Malingerers*, as they are technically called. It must be confessed that there is a degree of *eclat* attending the detection of a fraud, which is very likely to lead the practitioner astray, by inducing him to attach undue importance to the supposed proofs of guilt; such cases have unfortunately occurred, and the innocence of the party has been compromised by the vanity of the inquisitor.

Whenever the suspicions of a medical person are excited with respect to the sincerity of a patient's account, he should always endeavour to conceal them; he should become himself a dissembler, "*superare malitiam malitia*," for while the impostor is persuaded that the medical attendant is his dupe, he will be less on his guard; he should then be desired to describe with minuteness every symptom and circumstance of his malady; he should be questioned as to its origin, progress, and duration, its seat, and intensity, and the effects produced upon it by remedies; few impostors will be able to withstand such interrogatories without tripping; they will soon betray some incongruity in their statements, and enable the pathologist to elicit the truth. A girl of seventeen counterfeited epilepsy so well in the general hospital of Montpellier, as to elude all suspicion, until *M. de Sauvages* who being less credulous asked her whether she had not felt an air pass from the hand to the shoulder, and from the shoulder to the thigh, when, upon her re-

plying in the affirmative, he ordered her to be whipped, after which she had never any return of the disease. If a patient complains of a long protracted disease, which has rendered his life uncomfortable, and we at the same time perceive that his body has not undergone emaciation, we are naturally led to suspect the truth of his statement; and we shall find little difficulty in verifying, or dispelling our suspicions; nor ought we to forget, in an inquiry of this nature, to learn whether the patient has in truth ever flown to any remedy for relief; for if he be an impostor, however cheerfully he may have appeared to submit to medical discipline, we shall find upon minute examination that he has uniformly neglected every plan proposed for his cure. *Galen* was, from a circumstance of this kind, led to the detection of a person who feigned a fit of cholic, in order to avoid attending a public assembly, but he was observed to neglect the remedy *(Philonium)* which had uniformly relieved him, when labouring under the actual attack of the disease to which he was in reality subject. We should, moreover, be informed respecting the previous character, habits, constitution, and former complaints of the suspected invalid; and we should learn the ostensible reasons which the individual in question may have for feigning ill health, whether for temporary or permanent purposes. The inspections should be conducted in private, for it has been remarked by those most experienced in these subjects, that the number of spectators always increases the obstinacy of the impostor.

When the more ordinary modes of investigation have failed in leading to the detection of an imposture, of whose existence we entertain but little doubt, we may proceed to a system of intimidation, and to se-

vere discipline; few impostors, however sturdy, can withstand the cravings of hunger, blistering, the affusions of cold water, and above all a continual nausea from the administration of divided doses of *Tartarized Antimony*; and yet exceptions of an extraordinary kind might be adduced; "I have seen an instance," says *Dr. Hennen*, (*a*) "where the patient admitted of all the preparatory measures of amputation before he thought proper to relax his knee joint;" the same author also relates the case of a dragoon who bore very severe riding-school duty for some weeks, secured to his horse, before he could be brought to acknowledge that his chronic rheumatism was assumed. *Mahon* records a very extraordinary instance of a conscript, who feigned blindness, and baffled every attempt to detect the imposition; he was even placed on the margin of a river, and desired to go forward, which he did, and fell into the stream; he was however, without doubt, aware that boats were provided for his safety, for after having received his discharge, he freely acknowledged the imposition which he had practised.

Having offered these general remarks, we shall proceed to consider the particular diseases more usually counterfeited, and the modes best calculated for their detection; although we must here observe, that after all that can be said upon the subject, each case will require an exertion of ingenuity for its detection, for which no previous instruction can ever provide.

(*a*) Principles of Military Surgery, by *J. Hennen*, *M. D.* edit. 2d, Edinburgh, 1820. See also Transactions of the College of Physicians in Dublin, vol. ii, p. 337.

(*b*) Med. Leg. 1, 360.

Insanity has in all ages been feigned for the accomplishment of particular objects; we read of its having been thus simulated by David, Ulysses, and Lucius Brutus; the observations which we have already made upon the subject of imputed insanity, will suggest to the medical inquirer a plan of examination most likely to lead to a just conclusion. In general the detection of such an imposture will not be difficult; the feigned maniac never willingly looks his examiner in the face, and if his eye can be fixed, the changes in his countenance, on being accused, will be strongly indicative of his real state of mind; it is moreover, very difficult to imitate the habits of a lunatic for any length of time, and to forego sleep; an insane person generally sleeps but little, and talks much during the night, but the pretender, if he thinks he is not watched, will sleep, and only act his part when he believes his conduct to be observed.

Somnolency. This is a state of body which the sturdy impostor has in several instances assumed; he pretends to be in a state incapable of any muscular motion; he is constantly in bed, retaining that posture in which his limbs are placed, or may happen to fall; his great aim is to appear unconscious of the external world; the interesting case of this kind related by *Dr. Hennen* (*a*) must be considered as the master-piece of imposture. A person of the name of *Drake*, in the Royal African Corps, assumed an appearance of total insensibility, under which he resisted every kind of treatment; he resisted the shower bath as well as shocks of electricity; but on a proposal being uttered in his presence to apply the actual cautery, his pulse rose; and on preparations being made

(*a*) Op. citat. p. 458.

to remove him to Bethlem hospital, an amendment soon manifested itself.

Syncope. It seems probable that certain persons have possessed a controlling power over the action of the heart; *Dr. Cleghorn*, of Glasgow, mentions in his lectures the case of a person whom he knew, who could feign death, and had so completely the power of suspending, or at least, moderating the action of the heart, that its pulsation could not be felt; this man, it appears, some years afterwards, died suddenly. The story of *Colonel Townshend* is well known, who, in the presence of *Dr. Cheyne* and some other physicians, put on all the appearance of death, and was resuscitated of his own accord; in this instance it is said that neither pulse nor respiration could be perceived for more than half an hour; he, however, actually died on the same evening.

Dr. Hennen relates a most interesting case of violent palpitation of the heart, which was produced by the man's own efforts. *Dr. Hennen* found that he could at any time render the affection very imperfect by throwing the patient's head well back, so as to destroy that voluntary combination of muscular action, which he believes to have produced the palpitation; "we must suppose," says he, "that this person had the power of throwing the muscles which narrow the chest into sudden and strong action, at the moment when the apex of the heart made its stroke upwards;" after a serious admonition, *Dr. Hennen* sent the man back to his duty, and as he afterwards remained without any murmur or complaint, we must consider his obedience as a tacit acknowledgment of his guilt. Some persons have pretended that they have no pulsation at the wrist, and they occasion its cessation by pressure on the artery, or by taking a

full inspiration, and continuing to retain the breath as long as possible. (*a*)

Epilepsy. There is perhaps no disease that has been more frequently simulated with success; its characters, and mode of attack, offer great facilities for the impostor; it does not require the unremitting caution which other maladies exact for successful imitation, nor is it necessary, as *Dr. Smith* observes, to assume it but at convenient times; it being perfectly consistent with the nature of the disorder to be quite well in the intervals, which may be longer or shorter at the impostor's pleasure; during the feigned attack, the blood is generally sucked from the gums, and the mouth made to froth by chewing soap; (*b*) there is, however, one symptom of the disease which cannot be imitated—the incontractility of the pupil of the eye, on exposure to light, which in a real fit of epilepsy is always dilated and immoveable; nor is the patient affected by rubbing stimulants on the nose. During these feigned convulsions impostors have often suffered the most flagrant liberties to be taken with their persons, without betraying the least consciousness of what was going on, such as having pins and needles run into different parts of their bodies; this fact admits, in some degree, of physiological explanation; compression on the muscles, by acting on their nervous filaments, or by some unknown influence on the distribution of nervous energy, renders them less sensible in proportion as they become contracted; wounds are thus often inflicted in the field of battle which are scarcely felt during a desperate conflict, on account of the high muscular energy of the part which

(*a*) See *Parry's* Elements of Physiology.

(*b*) See the evidence before a Committee of the House of Commons, on the subject of Mendicity.

is in force at the time ; indeed it may be satisfactorily shewn that convulsions, or inordinate muscular contractions, are in themselves instinctive efforts to diminish pain.

Hysteria. On account of the variety and mutability of the symptoms which characterise this affection, but little skill is required for its simulation. *Dr. Cullen* is said (*a*) to have been deceived by a man who, pretending to be affected with this disease, was retained in the Edinburgh Infirmary as long as suited his convenience, and afterwards triumphantly acknowledged the deceit; affusion of cold water, low diet, and blisters, will generally furnish the means of detection.

The Shaking Palsy is a frequent plea on the part of an idle beggar ; and is always suspicious, especially where the person appears to be in other respects, in an ordinary state of vigour ; this ingenious order of mendicants, however, says *Dr. Gordon Smith*, (*b*) understands the art of mimicking wretchedness too well not to have the details of their appearance in some degree of keeping.

Before we quit the subject of spasmodic diseases, it is essential to remark that, owing to circumstances and peculiarities of temperament, these diseases assume, on certain occasions, and in particular individuals, an extravagance of character which might create a suspicion of their being feigned. *Lord Monboddo*, in his "Ancient Metaphysics," mentions an extraordinary case of what he calls "jumping ague," in which the person affected would jump on chairs and tables, and run with great velocity during sleep.

(*a*) *Male's* Elements of Juridical Medicine, edit. 2, p. 237.
(*a*) Principles of Forensic Medicine, p. 470.

Sir John Sinclair, in his Statistical account of Scotland, relates also many well authenticated histories of the same disease, and in some parts of Forfarshire it is said to be extremely common; and there is reason to believe that it may be propagated by a species of sympathy; numerous are the instances (*a*) on record, where the accidental sight of a patient, suffering an epileptic attack, has immediately occasioned a similar attack on the spectator; so that epilepsy has been supposed to be sometimes communicable from one person to another, nearly in the same manner as has been observed of the action of yawning; and agreeably to a notion alluded to by the poet—

"Dum spectant oculi læsos, lædunter et ipsi."

Similar spasmodic diseases have been occasioned by religious enthusiasm, and propagated by sympathy, have become in a very wonderful manner epidemic; (*b*) in such cases, although we must consider those in whom the affection originated as designing impostors, we are bound to acquit the general mass of sufferers of any blame, except that which may attach to excessive credulity. (*c*)

(*a*) See a paper in the 3d vol. of the Medical Trans. of the Coll. of Phy. p. 112, by *Sir George Baker*, entitled "*An account of a singular disease, which prevailed among some poor children maintained by the parish of St. James, in Westminster. A. D.* 1784."

(*b*) *Haygarth* on the Imagination.

(*c*) The influence of sympathy in propagating a spasmodic paroxysm was illustrated, in a very extraordinary manner, some years ago in the county of Cornwall, when the methodists assembled in great numbers in their meeting-houses, and continued for many hours, and even days, in the agony of supplication, waiting for an assurance of divine mercy; during which period many persons who attended as visitors became convulsed. The author was at that time resident in the county, and lost no opportunity of investigating a phenomenon so anomalous and extraordinary. The visitation was called the Revival, and the

Fever. The state of the system after a night's debauch may deceive a person unaccustomed to such inspections. Emetics have also been taken with the same view, and the face has been exposed to the fumes of sulphur. *Foderé* likewise states that paleness has been induced by smoking *Cummin seeds*; (*a*) and we have heard that a paroxysm of fever may be excited and kept up by the introduction of a clove of garlic into the rectum. *Dr. Hennen* says that he has seen many attempts to simulate fever by whitening the tongue with chalk, &c. and he has often met with old soldiers profoundly versed in the history of a paroxysm of intermittent, and very skilful in imitating the rigors. The detection, however, of such artifices cannot be difficult.

Dropsy. This is more generally feigned by pregnant women, and for the means to be employed for the detection of the fraud, we must refer the reader to our section on utero-gestation. *Sauvages* relates the case of a mendicant who gave to his child the ap-

meetings appear to be have been very similar to the "Camp Meetings" in America. It was the author's intention to have selected from the notes which he had taken upon the occasion, some account of this Revival, but he has declined the task from the same feeling that induced the painter to throw a veil over the face of Agamemnon, because he despaired of giving it the expression which it required.

(*a*) That Cummin possesses this property is a very ancient opinion; thus *Pers. Sat.* v.

"Rugosum Piper, et *pallentis* grana Cumini."

Dioscorides maintained that it had made those persons pale who drank it, or washed themselves with it; and *Pliny* says that it was reported, that the disciples of Porcius Latro, a famous master of the art of speaking, used it to imitate that paleness which he had contracted by his studies; thus too *Horace*

"——Proh! si
Pallerem casu, biberent exsangue Cuminum,"

Epist. 19, *Lib.* 1, *v.* 12.

pearance of hydrocephalus by piercing the integuments of the head, and gradually introducing air; and *Ambrose Paré* mentions a similar practice for the purpose of counterfeiting hydrocele.

JAUNDICE. If any attempt should be made to colour the skin yellow, the whiteness of the tunica conjunctiva, as well as the appearance of the urine and fœces of the patient, will always detect the imposition.

HÆMOPTHYSIS. This disease has been frequently feigned by sucking blood from the cheeks, gums, &c. but the professional inspector can never be deceived by such artifices; the appearance of the sputa, the state of pulse, &c. will always indicate the truth; besides which detection must be insured by a careful examination of the mouth and fauces.

VOMITING OF BLOOD. *Sauvages* relates the case of a young woman who, to avoid the confinement of a convent, swallowed a quantity of bullock's blood, and vomited it up in the presence of a physician sent to examine her. Where such a trick is suspected, we have only to secure the patient from the necessary supplies, and the fraud is at once detected.

VOMITING OF URINE. Where this is asserted we may safely pronounce the patient an impostor, for the event is physiologically impossible.

BLOODY URINE. An appearance of this nature is often produced in India by eating the Indian fig (*Cactus Opuntia*), or the fruit of the prickly pear, which imparts to the urine a blood-red colour. It has been also simulated by clandestinely pouring real blood, or colouring matter, into the night utensils. There is an old story of a boy who imposed on many by pretending to pass black urine; but being confined, he was detected in an attempt to secrete an ink-bottle, which pointed out the mode of his imposture.

Incontinence of Urine. The simulation of this affection may be detected by giving the patient a full dose of opium at night, without his knowledge, and introducing the catheter during sleep, or, by taking him by surprise during the day, and introducing the same instrument; when, if he be an impostor, it will be found that the urine has not drained off, *guttatim*, as it was secreted, but that the bladder possesses the power of retention. If the bed clothes are not found wet after a full dose of opium, during the operation of which the patient has been suddenly awoke, we may also be satisfied that there is no incontinence. *Foderé* says that if the penis is secured by a ligature, it will swell considerably in the real incontinence, in consequence of the urine running into the urethra; but that no such effect will happen if the disease be feigned.

Gravel and Stone. All impositions upon this subject may be detected by chemical analysis; in general, it will be sufficient to saw the pretended calculus into two parts, when the absence of the characteristic structure will establish the fraud; it will frequently be found that they are small pebbles, or coarse siliceous sand; *Mr. Wilson* (*a*) has related two instances of this kind in which an attempt was made to practise on his credulity; "many years ago," says he, "when I resided in the house of *Mr. Cruikshank*, a person brought his son to that gentleman for surgical advice, asserting that the boy had long been cruelly afflicted with stone; in proof of which he produced several pieces of hard slaty substances, which he stated he had assisted the child in removing from the urethra; upon my expressing an opinion that

(a) Lectures on the Structure and Physiology of the Urinary and Genital Organs, p. 184.

these were not urinary concretions, he pretended to be angry, and indignantly left the house, declaring that he would seek for a surgeon to perform the operation for the removal of the stone, whose humanity would not let him doubt the assertion of a father, who, though in poverty, would gladly sacrifice his own existence to save that of his son: a few days after this he brought back the boy with a large piece of slate sticking in the urethra, which had torn the inner membrane, and from the swelling it had produced, was with much difficulty removed; wishing to detect the imposture, I persuaded him to leave the boy in *Mr. Cruikshank's* house, under the pretence that the operation of lithotomy should be performed, if necessary; and it was only after the forms of binding the boy and bandaging his eyes were gone through, that he could be prevailed upon to confess his father had taught him to introduce these substances, which he had procured from coals, for the purpose of exciting commisseration for his pretended sufferings, and obtaining money from the charitably disposed; and perhaps, in this instance, to have extorted money from the surgeon to conceal his ignorance, had he seriously attempted to perform any operation."

Alvine Concretions. It sometimes occurs that bodies of a very anomalous kind are passed from the intestines; but the medical practitioner by a careful examination of the substance, and a minute inquiry into the nature of all the ingesta, will frequently succeed in tracing their origin. *Dr. Marcet*, in his "Essay on Calculous Disorders," relates some interesting instances of this kind, which we shall notice in this place, in order to put the medical man on his guard when called upon to deliver his opinion upon such occasions. The first case is that of some con-

cretions put into *Dr. Marcet's* hands by *Sir Astley Cooper*, and which had been discharged by a female patient, under circumstances which made it questionable whether they had proceeded from the rectum, or from the urethra; they were, however, discovered to be pieces of undigested cheese formed into balls by the action of the intestines, or portions of caseous matter actually formed in the intestines from milk taken as nourishment by the person, and coagulated by the gastric juices into those undigestible masses. Another singular species of intestinal calculus was found by *Dr. Marcet* and *Dr. Wollaston* to be oat-seeds, derived from the oaten cake which the patient had eaten. *Dr. Marcet* also describes a concretion which, by the assistance of *Dr. Wollaston*, he discovered to be those small woody knots which are often found in certain pears, and which the person had previously eaten. The last case which he rela tes is not less curious; a philosophical gentleman of delicate health, and disordered system, voided a number of small red globular bodies, each of which had in its centre two black opaque spots; they were supposed to be peculiar animals connected with his disorder, but *Dr. Wollaston* soon satisfied himself that they were nothing but the spawn of lobsters, an extremely indigestible substance, of which the patient acknowledged to have eaten about the time he passed these bodies. The author has deemed it necessary to introduce this subject under the present article; for, strange as it may appear, it not unfrequently happens, as *Dr. Marcet* has stated, that persons apparently respectable, produce bodies, as having been voided, which are wholly supposititious.

Abstinence from Food. Long fasting, or the power of refraining altogether from food for years,

has been frequently the subject of imposition. The case of *Anne Moore*, of Tetbury, must be in the recollection of all our readers (*a*) ; and in the *Philosophical Transactions* two cases are recorded, in one of which a man is said to have taken nothing but water for eighteen years, with now and then during a certain period of the year, a draught of clarified honey ; but the case which has excited public interest in the greatest degree, is that of *Elizabeth Canning*, (*for whose trial, see* 10 *Harg. St. Tri.* 205, *and* 19 *Howel St. Tri.* 262) who, among other circumstances, pretended that she had been confined in a loft from Tuesday the 2d of January at four o'clock, A. M. until Monday the 29th, at four P. M. and that during this period she had had no sustenance, except about twenty-four pieces of bread to the amount of a quartern loaf, a penny mince-pye, and between three or four quarts of water ; and yet that on the 28th day she made her escape by jumping out of the window, and walked twelve miles in six hours without taking food.(*b*) This story, incredible as it may appear, was actually believed by many persons, and popular clamour rose to a most indecent height ; bills of indictment were preferred, and libels circulated without example either as to number or virulence ; and *Mary Squires*, an unfortunate old gipsey, was condemned to death for the robbery charged to have been committed previous to this alleged, wanton imprisonment of the impostress *Canning*. One of the most interesting points in the evidence of these trials, (for

(*a*) The details and progress of the imposture may be seen in successive volumes of the Medical and Physical Journal, viz. vol. xx, p. 402, 527 ; xxi, p. 60 ; xxiv, p. 309 ; xxix, p. 109, 409, 469 ; xxx, p. 21 103, 187.

(*b*) She also swore that during the whole period she had no evacuations except by urine.

there were several on different grounds,) was derived from the inspection of the linen of the impostress by an ingenious midwife, (19 *How. St. Tri.* 428) who observed that in twenty-eight days a menstrual period would probably have occurred, and yet there was no vestige of such an event to be traced on the linen; thus may physiological circumstances often elucidate points apparently remote from medical cognizance.

Deafness and Dumbness. Where the former of these maladies is alone simulated, the inspector will be able, with a little address, to detect the imposture; a sudden noise will frequently betray the patient, and an instance of this kind is related by *Ambrose Paré*; we may also contrive to communicate in his presence some circumstance in which he is greatly interested, and notice the effect of the intelligence upon his countenance, or upon his pulse. Where dumbness is only feigned, we should remember that the powers of articulation never leave a person without some cause, which medical inquiry must discover. It has been a question whether the absence of the tongue should be considered a sufficient reason for muteness; although we cannot dispute the validity of such a proof, it is necessary to know that cases are recorded *(a)* where persons did very well without that organ; but we are inclined to believe with Dr. Smith, that the muscles belonging to the tongue were, in such cases, not deficient. But these observations

(a) Jussieu has given an account of a Portuguese girl, of fifteen years of age, who had been born without a tongue, and he refers to a similar case recorded eight years before by a surgeon of Saumur, where the subject was a boy, who had lost his tongue by gangrene, and yet to a certain degree, was able to perform the functions of it. A case of a similar nature, together with a reference to several other instances, stands recorded in the annals of our own country, and may be found in the Philosophical Transactions.

apply to instances of imposture, where deafness or dumbness have been singly simulated; suppose a medical practitioner is called upon to examine a patient who declares himself to labour under the misfortune of congenital deafness, and consequent dumbness, what plan of investigation is he to pursue upon such an occasion? It must be admitted that where this simulation is well performed, it becomes extremely difficult to detect it; but it requires so much art and perseverance that few persons will be found capable of the deception: *M. Sichard* succeeded in the detection of a most accomplished impostor, by requiring him to answer a number of queries in writing; when the Abbé soon found that he spelt several words in compliance with their sound, instead of according to their established orthography; by substituting for instance the *c* for the *q*, which at once enabled the Abbé to declare that it was impossible that he should have been deaf and dumb from his birth, because he wrote as we *hear*, and not, as in the case of the real deaf and dumb, as we *see*.

Blindness. In cases of alledged amaurosis, the practitioner has generally relied upon the contractility of the pupil, as a test of vision; but *Richter* asserts that nothing positive can be drawn from the mobility or immobility of the iris, as sometimes the one and sometimes the other occurs; if however the pupil does not contract, we must think that the practitioner is authorised in concluding as to the existence of the disease. By unexpectedly reflecting the rays of the sun, by means of a mirror, upon the eye of the patient, we shall generally be able to discover any deception that may have been practised. Where short-sightedness is pleaded as a disqualification, the truth may be easily ascertained by inspection. The

French adopted a very simple and ingenious mode of distinguishing the feigned myopes who endeavoured to escape the conscription laws; they placed spectacles of various powers upon the persons to be examined, and suddenly bringing before their eyes a printed paper, the subject of which was wholly unknown to them, the facility with which the person read pointed out with tolerable accuracy the state of his vision. A myope, for instance, and none but a myope, could read fluently a paper, brought close to his eyes, with conclave glasses, and *vice versâ*.

Ophthalmia. This affection has been sometimes induced by the application of corrosive sublimate; if, says *Dr. Hennen*, (*a*) in any suspected corps we find that the right eye is universally affected, it gives a reasonable ground to suppose, that the deleterious substance has been put in preference into that eye, from design, or perhaps from the facility which the impostor derives from his right hand; a left-handed person will, for the same reason, inflict the injury on the left side.

Ulcers, &c. External sores are constantly feigned by mendicants to obtain relief, or by soldiers to procure their discharge; and for this purpose various acrid applications as well as pressure have been resorted to. *Galen* detected an imposture of this kind, where a slave, in order to avoid accompanying his master on a long voyage, produced tumours in his knees by the application of *Thapsus*. Ulcers, says *Dr. Hennen*, were formerly extremely prevalent in the army, and were often produced by various acrid substances, but, by the adoption of *Mr. Baynton's* practice, they are

(*a*) Op. Citat. See also a paper by Dr. Vetch, in the *Edinburgh Med. & Surg. Journ.* Vol. iv. p. 157.

now rendered much more manageable; where the ulcer is supposed to be excited by unfair means, surgeons are now in the habit of sealing the dressings, and so effectually preventing any improper tampering with them, without immediate discovery. *Dr. Hennen* says, "I had some time ago a case in a recruit, reported to be *Pompholyx Diutinus*, and resembling that species of Bullæ in a very remarkable degree; after several weeks *Dr. Bartlett* of the 88th regiment, into whose charge the man was at length transferred, detected a shining particle of the powder of cantharides adhering to an unctuous dressing, which had been purposely applied loosely to the limb, in order that the patient might not be prevented from managing his case in his own way." On some occasions the *Ranunculus Flammula* has been employed for these iniquitous purposes; in others, *Verdegris*, or a copper coin, has been bound tight on the sore.

Hernia has been sometimes simulated by blowing air into the cellular membrane; and Prolapsus Ani has been successfully imitated by introducing a foreign gut into the rectum. We shall now dismiss the subject of simulated diseases, leaving such deceptions as that of *Miss M'Avoy* of Liverpool, to the fate which must await them; and the professional men who have aided them by their credulity, to the contempt which they so richly merit, from the more enlightened part of their medical brethren.

OF THE ADULTERATION OF FOOD.

Although it is generally acknowledged that the representations of the ephemeral writer who lately excited so much public notice, were no less preposterous than the symbols which decorated his volume, (*a*) yet it cannot be denied that a great part of our daily food, and a still greater portion of our luxuries, are the constant objects of fraudulent adulteration; and what reasonable hope can be entertained of any amendment, while the temptations remain so excessive, the detection so difficult, and the punishment so inadequate to the crime; or, above all, while the trouble and expense of prosecution continue to be so disproportioned to the injury sustained by an individual, as to prevent his seeking redress through the ordinary channels of the law? these observations, perhaps, apply with greater force to the adulteration of articles not subject to the revenue duties of excise or customs, such as bread, milk, &c. Against the substitution or sophistication of those whose sale enriches the treasury, we have numerous enactments, and were we to form our judgment from them alone, we should conclude that fraudulent adulterations were rather deprecated as offences against the revenue, than against the health of the citizen. It is, however, important to remark, that if the health of any person be impaired in consequence of the act of another, as by selling him bad wine, which injures

(*a*) "A Treatise on Adulterations of Food, and Culinary Poisons, by *Frederick Accum*." A work which is perhaps better known by the title of DEATH IN THE POT.

the party's health, an action (viz. a trespass on the case) will lie. 2 *Espin N. P.* 601 ; 1 *Rolle Abr.* 90.

The adulteration of bread (*a*) is specially prohibited by several statutes; the 31 *Geo.* 2, *c.* 29, entitled

(*a*) In this country, bread is chiefly divided into *white*, *wheaten*, and *household*, differing only in degree of purity; in the first, all the bran is separated; in the second, only the coarser; in the third, none at all; so that *fine bread* is made only of flour; *wheaten bread* of flour with a mixture of the finer bran; and *household*, of the whole substance of the grain, without taking out either the coarse bran, or fine flour. *Stat.* 8 *Ann*, *c.* 18. In the statute of assize of bread and ale, to be hereafter noticed, (51 *Hen.* 3,) mention is made of *wastel-bread*, *cocket-bread*, and *bread of treet*; which answer to the three sorts of bread above mentioned, viz. *white*, *wheaten*, and *household-bread*.

The bread of the London bakers may be certainly considered as forming a very distinct species, although by no means a definite one; there are no less than six different kinds of flour brought into the London market, which are designated by the following terms, viz. 1, *fine flour*; 2, *seconds*; 3, *middlings*; 4, *fine middlings*; 5, *coarse middlings*; 6, *twenty-penny flour*; besides which the London bread-flour is not unfrequently deteriorated by having beans and peas ground up with it: now it is a fact generally admitted that the very best wheaten flour can alone produce beautifully white bread, unless some bleaching substance be employed, in which case however inferior flour may be made into bread equally specious to the eye; for such a purpose *alum* is universally employed by the London bakers, and it has become a medical question whether the health of the community is likely to be affected by the practice. We should say that, generally, so small a proportion as ten or fifteen grains of alum in a quartern loaf could hardly produce any mischief, although we are inclined to think that certain constitutions may be sensible to its influence, and that infants may occasionally suffer from it; these effects are of course more likely to occur to persons who only visit London occasionally, although upon this subject some important fallacies may exist; and it is by no means satisfactorily established that the costiveness, which is sometimes experienced by country residents on their first coming to London, arises from the alum present in the bread; for admitting even that it depends upon the bread, it may be connected with the change in the relative coarseness of the flour alone, for we have shewn in another work (PHARMACOLOGIA, edit. 5, page 160) that bran renders wheaten flour laxative from its mechanical action upon the inner coats of the intestines. But a much more iniqui-

"An act for the due making of bread, and to regulate the price and assize thereof, and to punish persons who shall adulterate meal, flour, or bread;" after reciting the (*a*) 51 *Hen.* 3, and 8 *Anne*, *c.* 18,

tous practice than that of adding alum to bread has been detected: bakers have been convicted of using *gypsum*, *pipe-clay*, and *chalk*, and not long since a very extensive fraud was carried on in Cornwall, where a very considerable portion of the *Porcelain clay* (decomposed felspar) from Saint Annes, was introduced into the bread; and the author of this note was lately informed by Mr. Hume, of Long Acre, that on examining some biscuits prepared for the use of the navy, he found as much as eight per cent of *gypsum*. *Dr. Reines* observes that this adulteration is very common in Germany, where the same mills are employed to grind corn for the inhabitants, and gypsum for the purpose of a mineral manure to the lands. It may be necessary to remark, before quitting the subject of the adulteration of bread, that we possess no summary and unexceptionable chemical test for the detection of *alum*, since common salt, which necessarily enters into the composition of the loaf, often contains saline impurities which may occasion precipitates like those we might attribute to *alum*.

(*a*) This act of the 51st *Hen.* 3, stat. 6, (entitled a Statute of the Pillory and Tumbril) is worthy of notice, as it is we believe the first in which the adulteration of human food is specially noticed and prohibited. It is thereby enacted that six lawful men shall collect the measures and weights of the town, as well of taverns as other places, and one loaf of every sort of bread. Afterwards twelve lawful men shall swear to make true answer of the price of wheat, first, second, and third, of barley, and oats; and of the price of bread, and for what default a baker ought to be amerced or to be judged unto the pillory; also if any steward or bailiff for any bribe doth release punishment of the pillory and tumbril. Also if they have in the town a pillory of convenient strength; next of the price of wine, and if any corrupted wine be in the town, or such as is not wholesome for man's body; also of the assize of ale, and what brewers have sold contrary to the assize, and ought to be judged to the tumbril; also if there be any that sell by one measure, and buy by another. Also if any butcher do sell contageous flesh, or that died of the murrain. Also of cooks that seethe flesh or fish with bread or water, or any otherwise that is not wholesome for man's body, or after that they have kept it so long that it loseth its natural wholesomeness, and then seethe it again and sell it. Also of forestallers and regrators. The statute concludes by enacting that when a quarter of barley is sold for two shillings, four quarts of ale shall be sold for a penny; when for two and sixpence, the seven

and making various regulations as to the assize, enacts that bread made for sale shall be of meal or flour, and that no alum, or preparation or mixture in which alum shall be an ingredient, or any other mixture or ingredient whatsoever (except only the genuine meal or flour which ought to be put therein, and common salt, pure water, eggs, milk, yeast, and barm, or such leaven as shall at any time be allowed to be put therein by the court or magistrates.) And that no person shall knowingly put into any corn, meal, or flour, which shall be ground, dressed, bolted, or manufactured for sale, any ingredient, mixture, or thing whatsoever, or shall knowingly sell any thing which shall not be real and genuine meal or flour of the grain the same shall import to be. (*a*)

With respect to the manufacture of malt liquors, especially porter, it is wholly under the jurisdiction of the excise, and yet there is no article of diet which has so universally the credit of being adulterated, and that too with drugs of the most noxious quality; we have now lying before us "*Minutes taken* (in Session 1818) *before the Committee of the House of Commons, to whom the petition of several inhabitants of London and its vicinity, complaining of the high price and inferior quality of* BEER, *was referred, to examine the matter thereof, and report the same, with their observations thereupon, to the house.*" *Ordered*, by the House of Commons, *to be printed*, 8 April, 1819. From this it very clearly appears that the illegal addition of various drugs is commonly

quarts for twopence; when for three shillings, three quarts for a penny; when for three shillings and sixpence, five quarts for twopence; when for four shillings, two quarts for one penny, and so onward the price shall increase and decrease after the rate of sixpence.

(*a*) For subsequent statutes see Jac. L. Dict., and Burn's Justice by Chetwynd: tit. bread.

practised in the breweries; but we are nevertheless inclined to believe that the more extensive and serious frauds of this description, are not carried on in the cauldrons of the brewer, but in the barrels of the publican. (*a*)

The adulteration of milk has furnished another object of popular clamour, but we are inclined to believe that its dilution with water is the only fraud ever committed with respect to it. *Chalk*, if added, would be so easily detected, and would answer the intended purpose so clumsily, that we may very safely consider such a charge against the London milk-venders as entirely groundless.

In order to assay the quality of milk several different instruments have been proposed; *Mr. Dicas*, mathematical instrument maker in Liverpool, invented for this purpose an instrument which he termed a *lactometer*, and which ascertains the richness of milk

(*a*) The following are the more usual additions made by the publican; *beer-heading*, which is intended to impart the "*cauliflower head*," and consists of sulphate of iron, common salt, and alum, for which several convictions have taken place, (*Minutes of the Committee, above cited*); it is necessary to observe that the addition of this "*heading*" is made with a view to restore the property of frothing to the porter, which has been destroyed by dilution with table beer. The extract of the berries of the *Cocculus Indicus*, possessing properties eminently narcotic, is added for a purpose too obvious to require explanation, and is regularly sold by the brewer's druggists under the technical appellation of "BLACK EXTRACT." There is also another preparation, for a similar object, sold under the name of "BITTERN," and which is a compound of *black extract*, *extract of quassia*, *spanish liquorice*, and calcined *sulphate of iron*. "MULTUM," used as a substitute for malt and hops, consists of *Extract of Quassia*, and *Liquorice*. We must close this note by expressing our regret at the little assistance to be derived from chemistry in the detection of such frauds; mineral substances, as *sulphate of iron*, or any of the mineral *acids*, can certainly be recognised in our laboratories; but when we attempt to identify vegetable principles, the resources of analysis completely fail.

from its specific gravity compared with water. *Mr. Edmund Davy*, of Cork, has lately made a very interesting application of the hydrometer, (*a*) to ascertain the quality of skimmed milk; it appears that in Ireland, especially in its southern districts, skimmed milk forms an indispensable part of the subsistence of the lower orders, and it is stated that the sale of this article in the markets of Cork alone amounts to a thousand pounds per week; the necessity therefore of securing the public against the fraudulent adulteration of so important an article of diet, requires no comment; and it appears that a large proportion exposed for sale had been greatly diluted with water; and that for want of the means of detection, the fraud had been long practised with impunity, not only in Cork, but also in other parts of the country; an unsuccessful attempt had indeed been made to remedy the evil by the appointment of persons called *tasters*, who were empowered to inspect the milk-markets in Cork, and to detain such milk as they considered adulterated; the total incompetency however of these officers was soon discovered, and a committee of respectable farmers was formed, to devise, if possible, some means to prevent the commission of so serious a fraud; on this occasion *Professor Davy* was consulted, and he accordingly constructed the instrument to which we have alluded, and which differs only from the hydrometer in its scale; so completely has it answered the object of its construction that the milk now brought to market is very rarely found to have been *watered*.

We might now proceed to the consideration of various other articles which are pre-eminently the ob-

(*a*) *Hydrometer* employed by the excise, act 58, *G.* 3, *c.* 28 and 56 *G.* 3, 140. *Acetometer* 58 *G.* 3, *c.* 65, *s.* 8.

jects of fraudulent adulteration, but neither our time, nor space, will allow the digression; nor indeed should we have entered into the discussion, but to preserve the order and uniformity of our subject, and to shew its relations to chemical as well as medical inquiry. With respect to the adulteration of our medicinal articles, we have already pointed out (p. 20) the law by which the College of Physicians is empowered to search apothecaries' shops, and to destroy such drugs as may be spoilt or adulterated; we have only in this place to repeat our desire that its jurisdiction may be enlarged. Very few practitioners have an idea of the alarming extent to which the nefarious practice of medicinal adulteration is carried, nor of the systematic manner in which it is conducted; and it would perhaps have been deemed a duty to have entered into a few details upon the subject, had not the author already published in his PHARMACOLOGIA (*edit. 5th*) an account of the various modes in which our remedies are thus deprived of their most valuable properties, and described the tests by which such frauds may be discovered.

POLICY OF INSURANCE ON LIVES.

"An insurance upon life is a contract by which the "underwriter for a certain sum, proportioned to the "age, health, profession, and other circumstances "of that person, whose life is the object of in- "surance, engages that the person shall not die "within the time limited in the policy; or if he do, "that he will pay a sum of money to him in whose "favour the policy was granted. Thus, if *A* lend "£100 to *B*, who can give nothing but his personal "security for repayment; in order to secure him in "case of his death, *B* applies to *C* an insurer, to in- "sure his life in favour of *A*, by which means, if *B* "die within the time limited in the policy, *A* will "have a demand upon *C* for amount of his insur- "ance." *2 Park on Insurance*, 636.

The insurance must be made by a party having an interest in the life insured, for by 14 *Geo.* 3, *c.* 48, *s.* 1, it is enacted, "That no insurance should be "made by any person or persons, bodies politick or "corporate, *on the life or lives* of any person or per- "sons, or on any other event or events whatsoever, "wherein the person or persons for whose use, be- "nefit, or on whose account, such policies should be "made, *should have no interest*, or by way of gaming "or wagering; and every insurance made contrary "to the true intent and meaning thereof should be "null and void to all intents and purposes." And also "That it should not be lawful to make any po- "licy or policies on the live or lives of any person "or persons, or other event or events, without in- "serting in such policy or policies the person's name

" interested therein, or for whose use, benefit, or on " whose account such policy was to be made or under- " wrote. And that in all cases where the insured had " had an interest in such life or lives, event or events, " no greater sum should be recovered, or received " from the insurer or insurers, than the amount or " value of the interest insured, in such life or lives, " or other event or events."

A creditor has an interest in the life of his debtor, *Anderson* v. *Edie*, *K. B. Trin. Term.* 1795, but it must be for a good and legal consideration, not for gaming, *Dwyer* v. *Edie*, *Hill. Term.* 1788. If the creditor be paid by the executors, though from funds furnished *aliunde*, (their testator having died insolvent) he cannot recover against the insurers. *Godall and others* v. *Boldero and others*, 9 *East* 72.

Death by suicide, or the hands of justice, is generally excepted in all policies, and no premium is returned, though such event should happen on the day of insurance, by *Lord Mansfield* in *Bermon* v. *Woodbridge*, *Doug.* 789 and in *Tyrie* v. *Fletcher*, *Cowp.* 669; and as this is a matter of contract, it appears to be unimportant whether the party dying by his own hands be found *felo de se* or not.

And if there be any fraudulent concealment as to the state of the party's health or age (*a*) the policy is

(*a*) We cannot follow the foreign writers who speculate on the possibility of determining age from physiological criteria. Unfortunately the ordinary mode of proof from parish registers is often defective, as the act only requires the date of the baptism, and not of the birth; many clergymen refuse to insert the latter under the plea that birth and baptism should be nearly cotemporaneous. Every day's experience shows the contrary; and as many nice points may arise as to the very day on which a person (for instance) attains the age of twenty-one, we hope this practice will be amended.

void. But "even where there is an express warranty that the person is in good health, it is sufficient that he is in a reasonable good state of health; for it never can mean that the *cetui que vie* is perfectly free from the seeds of disorder. Nay even if the person, whose life was insured, laboured under a particular infirmity, if it can be proved by medical men, that it did not at all, in their judgment, contribute to his death, the warranty of health has been fully complied with, and the insurer is liable. 2 *Park* on Ins. 649.

"Thus in an action on a policy made on the life of *Sir James Ross*, for one year from *October* 1759 to *October* 1760, *warranted in good health at the time of making the policy;* the fact was, that *Sir James* had received a wound at the battle of La Feldt in the year 1747, in his loins, which had occasioned a partial relaxation or palsy, so that he could not retain his urine or fœces, and which was not mentioned to the insurer. *Sir James* died of a malignant fever within the time of the insurance. All the physicians and surgeons who were examined for the plaintiff, swore that the wound had no sort of connection with the fever; and that the want of retention was not a disorder that shortened life, but he might, notwithstanding that, have lived to the common age of man; and the surgeons who opened him said, that his intestines were all sound. There was one physician examined for the defendant, who said, the want of retention was paralytic; but being asked to explain, he said it was only a local palsy, arising from the wound, but did not affect life; but upon the whole he did not look upon him as a good life.

"*Lord Mansfield.*—The question of fraud cannot exist in this case. When a man make insurance on a life generally, without any representation of the

state of the life insured, the insurer takes all the risk, unless there was some fraud in the person insuring, either by his suppressing some circumstance which he knew, or by alleging what was false. But if the person insuring knew no more than the insurer, the latter takes the risk. In this case there is a warranty, and wherever that is the case, it must at all events be proved that the party was a good life, which makes the question on a warranty much larger than that on a fraud. Here it is proved that there was no representation at all, as to the state of life, &c. But where there is a warranty, then nothing need be told; but it must in general be proved, if litigated, *that the life was in fact a good one, and so it may be, though he have a particular infirmity.* The only question is, *Whether he was in a reasonable good state of health, and such a life as ought to be insured on common terms?*" The jury upon this direction, without going out of court, found a verdict for the plaintiff. *Ibid.* 1 *Black. Rep.* 312.

In *Willis* v. *Poole*, which was on a case of gout, (*a*) the same learned judge said, "*Such a warranty can never mean that a man has not the seeds of disorder.* We are all born with the seeds of mortality in us. A man subject to the gout is a life capable of being insured, if he has no sickness at the time to make it an unequal contract. *Park* 650.

"It is not to be concluded, that a disorder with which a person is afflicted before he effects an insurance on his life, is a disorder 'tending to shorten life,' within the meaning of a declaration of the insurance

(*a*) But to avoid these questions, it is the practice of the insurance offices specially to name gout and some other disorders in their enquiries of the usual medical attendant of the party insuring.

offices, from the mere circumstance that he afterwards dies of it, if it be not a disorder necessarily having that tendency. *Watson* v. *Mainwaring* (4 *Taunt* 763) This case turned on the question whether the complaint with which the deceased was afflicted and ultimately died, was an ordinary, or an organic *dyspepsia.* The jury found that it was neither organic nor excessive (*i. e.* at the time of insurance.)"

Chambre J.—"All disorders have more or less a tendency to shorten life, even the most trifling; as for instance, corns may end in a mortification; that is not the meaning of the clause: if *dyspepsia* were a disorder tending to shorten life within this exception, the lives of half the members of the profession of the law would be uninsurable."

If the insurance be for a year, the day of the date (*a*) is included, (thus a policy effected on the 3d of Sept. 1697 insures the whole of the 3d of Sept. 1698, being a year and a day) but the allowance of fifteen days or more usually given to pay up arrears of premium does not cover a death happening within them, (*Want, Exix*, v. *Blunt*, 12 *East.* 183,) for the contract is, that the *insured* shall *himself* pay during his life, not that his executors or administrators shall pay; and personal contracts shall be performed according to the words and apparent meaning of the parties, and not by a performance *cy-pres;* see also *Tarleton* v. *Stainforth*, 5 *T. R.* 695. The death must happen within the time insured, for if a person, whose life is insured for one year, receive a mortal wound within the year, but does not die till after the year, the insurer would not be liable; *Mr. Justice Willes*,

(*a*) For the doctrine of day of date exclusive or inclusive, see *Lord Mansfield*, in *Pugh* v. *Duke of Leeds. Cowp. Rep.* 714.

in *Lockyer* v. *Offley*, 1 *T. R.* 252; but if the insurance were for life, he might pay up his arrears within the fifteen days.

It is evident that medical practitioners must have frequent occasion to give testimony on this subject; but it is only necessary for us here to observe, in addition to the general rules of evidence, that the declaration of a wife, whose life had been insured, has been admitted as evidence to prove the state of her health; her husband after her death having brought an action against the insurance company, *Avison* v. *Lord Kinnaird*; this case is important to medical witnesses in several points. See 2 *Pr. Smith's R.* 286, 6 *East.* 188.

This branch of the law is also important to the faculty, as they must frequently be called upon to justify the medical certificates which the insurance offices uniformly require before they issue a policy, and it continually involves the very nice question as to what shall or shall not be considered a disease tending to shorten, or endanger life. (*a*)

So also medical evidence is often required to as-

(*a*) There is another case in which it is important to ascertain whether a person was in imminent danger, for if a contract for the purchase of a presentation be entered into while the incumbent is known by the parties to be in great danger, it is simoniacal. In *Fox* v. *Bishop of Chester*, *Spring Assizes*, 1821, after a long consultation the following issues were agreed to be put to the jury.

1st. Whether Mr. T. and Mr. F. or either of them knew, that Mr. B. (the incumbent) was in great danger at the time of the execution of the deed?—Verdict. That they both knew of it.

2d. Whether Mr. B. was afflicted with a mortal disease and in great danger?—Verdict. Yes.

3d. Whether Mr. T. and Mr. F. or either of them believed that Mr. B.'s life was despaired of at the time of the execution of the deed?—Verdict. That his life was depaired of by both of them.

4th. Whether the life of Mr. B. was actually despaired of at the time of the execution of the deed.—Verdict. That it was.

certain the state of a life on which an annuity may have been granted; where either the gross inadequacy of the price paid, or the exorbitance of the annuity secured, becomes a question for legal determination. (*a*)

(*a*) In a work lately published in Paris, entitled "*Rapports et Consultations de Medicine legale, recueilles et publiées par* J. RISTELHEUBER, D. M. *Médecin en chef à l'hospital Civil de Strasbourg*, 8*vo. p. p.* 172, the subject of insurance on lives and annuities, is amply considered; and the following case is fully detailed, which excited so much interest, some years ago, at Strasburgh. M. FRIERD sold, on the 11th of March, 1809, a large sum in the funds for the purchase of an annuity on his own life. He was at the time of the bargain, and had been for ten years, afflicted with Hemiplegia, in consequence of an apoplectic seizure; and he died on the second day after the signing of the document. The question therefore is, whether M. Frierd, on the day on which he signed the papers, was, or was not, already under the influence of the disease to which he fell a victim thirty hours afterwards. The question was debated with much talent and ingenuity on both sides; and the volume before us contains the various reports, opinions, and arguments, written on the occasion.

SURVIVORSHIP.

As the probable duration of human life, under ordinary circumstances, forms the foundation of the system of life insurance, so also does the comparative chance of duration between two or more lives. These contingencies have been made the subject of minute, and we believe accurate calculation. (*a*) One observation alone is necessary on this branch of the subject: the tables have been constructed on the basis of local mortalities, they must not therefore be considered as universally applicable to all changes of climate and circumstance. (*b*)

A more difficult problem however is presented when it is required to estimate the probable chance that one life had survived another, there being no evidence of the decease of either, though a moral presumption exists of the loss of both. The legal application of this question may arise from a variety of circumstances, as where two or more persons perishing by the same accident, as shipwreck, it is necessary to ascertain the survivor in order to determine the course of succession. This was the case of the representatives of *Gen. Stanwix*, A. D. 1772, (*Fearne's Posthu. Works, p.* 37) "a case which," according to the learned au-

(*a*) See *Price* on Annuities, and *Bailey's* Doctrine of Life Annuities and Assurances.

(*b*) Residence in great cities is almost universally believed to be prejudicial to the duration of human life: and that it may generally be so in some slight degree we are not disposed to deny. The Life Insurance Offices however, offer a practical proof that the difference between residence in London and the country, is not so great as is generally supposed; since these bodies, whose interest and experience constitute them the best judges of the subject, do not make any difference in the premiums required, from this change of circumstance.

thor, "seemed to mock every principle of judicial decision." *Gen. Stanwix*, accompanied by his only child, a daughter by his first marriage, and by his second wife, set sail for Ireland; the vessel was lost and not a single person escaped. If *Gen. Stanwix* had died a widower, and without issue living at the time of his death, that is to say, if his wife and daughter died before him, though but an instant, *his* nephew became his representative, and entitled to his personal estate; if the daugther was the survivor, then her personal representative (an uncle) was entitled; and on these claims the principal litigation took place, for though it is evident that the second wife also might have a separate next of kin, and her representative did bring forward a distinct claim, the circumstance is not noticed by *Fearne* (*see note l. c. p. 39*) "The court, finding the arguments on all sides equally solid and ingenious, waved giving any decision, and advised a compromise, to which the several claimants agreed." So also in the case of *Col. James* and his wife, who being passengers in the Grosvenor East Indiaman, were in 1782 cast away on the coast of Africa, and attempted with a great part of the crew and other passengers to make their way to some settlement, but in all human probability perished. In this case there was greater latitude for conjecture than in the preceding, as there was not the same presumption that the fate of both had been nearly cotemporaneous; one might have survived a very considerable time, or both may have been living at the moment of the suit; there was also some evidence of their comparative state when last seen, as three or four sailors, who parted from the main body and took a different route, ultimately escaped and arrived in England to relate the melancholy tale of

their shipwreck and sufferings. In this case, one of the parties being an infant, it was ordered that it be referred to the master to enquire and report whether it would be for the benefit of the infant to consent to a compromise; and the master having reported in the affirmative, no final judgment was given.

If a man be seized in fee of land and tenements, though but for a moment, his wife is entitled to dower (*a*); therefore if both father and son perish by a common accident, and the son survive, however short the period, his wife shall have dower, for the lands descended the instant the father died. (*2 Bl. Com.* 132.) "This doctrine was extended very far by a jury in Wales, (*b*) where the father and son were both hanged in one cart, but the son was supposed to have survived the father, by appearing to struggle longest; whereby he became seized of an estate in fee by survivorship," (he and his father being joint-tenants) "in consequence of which seizing his widow had a verdict for her dower." *Broughton* v. *Randall*, *Cro. Eliz.* 502, *Noy.* 64. (*c*) Here there could be no dower till the termination of the joint-tenantcy; therefore, if it were possible that they could have died simultaneously, the widow of neither could have been entitled; but this we believe impossible, therefore query, if there had been two widows and no evidence, should the case have been decided on presumption?

So also of joint-tenants (as partners) where the interest of the first deceased passes to the survivor,

(*a*) See *Park* on Dower.

(*b*) This was afterwards brought into B. R. by writ of error, as to the mode of returning the jury. *Cro. Eliz.*

(*c*) This case is variously reported, in *Cro. Eliz.* 502 the son is stated to have survived; in *Noy.* 64, that the father moved his feet after the death of the son.

and not to the heir at law or next of kin of the deceased; but the heir at law or next of kin of the last survivor is entitled, (and see above *Broughton* v. *Randall.*)

Also as between testator and legatee, if the legatee die first, it is a lapsed legacy and falls into the residue; but if the legatee survive, his executor or administrator shall take it. (*a*)

According to the civil law, which generally regulates the administration of personalty, it is held that when parent, whether father (*b*) or mother, (*c*) and child perish together, as in shipwreck, if the child be of the age of puberty, he shall be presumed to have survived; but on the contrary that he died first if he were under that age: regard being also had to the relation of the party who is to benefit by the decision. (*Domat C. L. p.* 652, 653.) But "it may happen several ways, that the mother may perish under the ruins of a building sooner than the child whom she suckles. It may happen that a son may be killed in a battel before his father; and on the same occasions, and likewise on all others, it may so fall out, that they both die in the *same* (*d*) instant, or that even he

(*a*) See *Mason and Mason*, 1 *Meriv.* 308, and articles of the *Code Napoleon* there cited. In this case it was referred to the master to enquire what children the testator (who with one of his sons had been lost at sea) had at the time of his death; the master reported that he was unable to state whether Francis, the son, survived his father or not. Sir W. Grant, M. R. directed an issue at the request of the plaintiff. See also *Taylor v. Deplock*, 2 *Phill.* 281.

(*b*) Cum bello pater cum filio perisset, materque filii quasi postea mortui bona vindicaret, agnati vero patris, quasi filius ante perisset, Divus Hadrianus credidit patrem prius mortuum. *Dig. Lib.* 34, *T.* 5, 5, 9, *S.* 1, *de rebus dubiis.*

(*c*) Cum pubere filio mater naufragio periit: cum explorari non possit, uter prior extinctus sit, humanius est credere filius diutius vixisse, *l. c. lex* 22.

(*d*) *Contra Fearne, l. c. p.* 358.

who by reason of his age, or some other infirmity, might be presumed to die first does nevertheless die the last." (*Domat.* 651).

By the *Code Napoleon*, *Art.* 721, 722, it is laid down that, of persons under fifteen, the eldest shall be presumed to have survived, above sixty the youngest; if some were under fifteen and others above sixty, the former are presumed to have survived; of persons between fifteen and sixty, males are presumed to have survived, the ages being equal or where the difference does not exceed one year.

The order of nature appears to afford the best general rule, and therefore, in the absence of all evidence to the contrary, it is to be wished that it were established, that the natural succession had taken place, as if no accident had occurred; that the child survived the parent; the nephew, the uncle; descendants, asscendants; legatees, testators; and generally that the younger had outlived the elder.

The decision in the following curious case appears to have been directed in conformity with such a principle. A father and son having perished at the battle of the Dunes, fought near Dunkirk in 1658, and the daughter and sister having at noon, on the very same day and hour, taken the vows in a nunnery, whereby she became *dead in law* (*a*), a question arose as to survivorship among these three persons, when it was decided that the Nun died first, since her death, being voluntary, was consummated in a moment; whereas that of the father and son, being violent, was probably

(*a*) The law of England recognises the same distinction between natural and civil death, upon which the above case turns, as in cases of felons after judgment of death; the question, however, can seldom, if ever, arise, since the term *natural* life is almost universally introduced into assurances of property.

not immediate. Between the father and son there did not appear to be any data for a just conclusion, and it was therefore decreed, according to the established rule above stated, that the son had survived the father.

But since it must be admitted that questions of *Survivorship* will occasionally assume a form highly capable of physiological elucidation, we are bound to consider the subject as an article of Medical Jurisprudence. The physical proofs by which we can arrive at a conclusion upon the fact of *Survivorship*, are necessarily precarious and doubtful; but, in the absence of all other testimony, they may be occasionally admissible: a question, for instance, has arisen in a case where the mother and infant have both been found dead, after a clandestine delivery, whether any physiological investigation could determine which of the two survived the other, and upon this question there have been several curious decisions; *Valentini*, in his Pandects, relates an instance in which the mother and offspring both lost their lives during the pangs of a difficult and protracted labour; when the medical witnesses, having considered the extreme delicacy of the infant on the one hand, and the exhaustion of the parent on the other, arrived at the conclusion that the latter must have been the first to perish. The Imperial Chamber of Wetzlar(*a*) came to a similar decision, in a case somewhat analogous; but in opposition to such an opinion *Capuron*, (*b*) *Belloc*, (*c*) and *Sue* (*d*) have maintained the

(*a*) Recueil Periodique de la Société de Medecine de Paris.

(*b*) La Medecine Legale relative a l' art des Accouchemens. A. Paris, 1821, p. 135.

(*c*) Medecine Legale.

(*d*) Journal de la Société de Medecine de Paris, tom. viii.

extreme uncertainty of any general conclusion deduced from so many uncertain data; a judgment in which we heartily concur. Let us, however, suppose a question of *Survivorship* to have arisen in consequence of a party having perished by famine, on a barren rock; here the lights of science may assist the decision; for the physiologist will tell us that persons so situated will perish with a rapidity proportioned to their youth, and state of robust vigour; a fact which is no less correctly than beautifully illustrated by the poet, in the awful fate of Count Ugolino and his children; where the father perished by inanition on the eighth day of his imprisonment, after having seen his sons, unfortunate victims of the most execrable vengeance ever conceived by man, sink amidst the convulsions of exhausted nature.

In a plurality of deaths occasioned by some common accident, as the falling of a building, an idea of survivorship may be deduced from an examination of the bodies, and of the relative situation in which they were found; it has been also said that if two persons are found dead in the water, and it be clearly made out that they were drowned, that besides the circumstantial presumptions afforded by evidence of greater buoyancy in the one body than in the other, or the knowledge that the one was a swimmer and the other not, we may by careful dissection surmise that death had supervened earlier in the one than in the other, from the appearances presented in the organs immediately acted on by this manner of death, such as *the presence of frothy mucus in the lungs, generated by vain attempts to respire.* (*a*) With regard to this latter test, we confess that we place no reliance whatever upon its indication, for it will be found to de-

(*a*) Smith's Principles of Forensic Medicine, p. 381.

pend upon so many extraneous circumstances as to be incapable of affording any just grounds for a conclusion: equally futile is that opinion which would attach any importance to the thoracic capacity of the individuals in question. Where a number of persons have perished from the inhalation of impure air, we may perhaps be allowed to conclude that those nearest the doors or windows, survived those who where found where the noxious air must have been in its highest state of concentration.

Medical Jurisprudence.

PART III.

Medical Jurisprudence.

PART III.

Introduction—1. *Of Arson—Human Combustion.*—2. *Of Rape, with Physiological and Medical Illustrations.*—3. *Of Homicide generally.*—4. *Of Real and Apparent Death.*—5. *Of the Physiological Causes, and Phenomena of Sudden Death.*—6. *Of Syncope.*—7. *Of Suffocation by Drowning, Hanging, and other causes.*—8. *Death by exposure to Cold—Heat—Lightning—Starvation.*—9. *Application of the Phyisological Facts, established in the preceding chapters, to the general treatment of Asphyxia.*—10. *Of the Coroner's Inquest.*—11. *Suicide.*—12. *Of Murder generally—by Wounding, or Blows—by Poisoning.*—13. *Of Poisons, Chemically, Physiologically, and Pathologically considered.*—14. *Of Homicide, by Misadventure or Accident.*—15. *A Synopsis of the Objects of Inquiry in Cases of sudden and mysterious Sickness and Death,—Commentary thereon, including practical rules for Dissection.*—16. *Abortion and Infanticide—with Physiological Illustrations.*—17. *Of Criminal Responsibility, and Pleas in bar of Execution.*—18. *Of Punishments.*—19. *Postscript.*

INTRODUCTION.

We have at length arrived at the third, and most important division of our work, comprehending the consideration of the principal pleas of the crown, three of which, Rape, Arson, and Murder, are pre-eminently the subjects of Medical Jurisprudence.

It is in the investigation of these crimes that the law derives its greatest support from the lights of science, and that the profession of physic demonstrates the value and extent of her judicial utility. Let the physician then, who approaches the tribunal of justice in order that he may promote by his science the due execution of the laws, fully appreciate the heavy responsibility of his situation; let his evidence be so distinguished by its dispassionate and inflexible character, and his opinions be so matured by study, and fortified by experiment, as not only to ensure for himself the respectful attention of the court, but to afford a practical illustration of the just pretensions and importance of the liberal profession which he represents. The observations which we have already offered on the subject of medical evidence (page 153) render it unnecessary for us to enlarge on this occasion upon the various duties it involves; and yet we cannot forbear from again pressing upon the attention of all those, who are likely to be called upon to assist the ends of justice, the great importance of preparing their minds by preliminary studies; let it be remembered, that it is not during the hurry and anxiety of a coroner's inquest, nor amid the tumult of popular prejudice and execration, that a medical practitioner should, for the first time, adopt the physiological or chemical opinions by which

he is ultimately to decide upon the life of a fellow creature; and yet it would be folly to conceal the unwelcome truth, that such a fact has not unfrequently occurred on several of the more interesting trials, upon which the medical witness has evinced any thing rather than a well grounded acquaintance with the philosophical bearings of the question; and while he has endeavoured to conceal his ignorance under the veil of technical phraseology, he has artfully sought to shun the embarrassments it might create by a display of bold and sweeping assertions, alike hostile to the discovery of truth, and the administration of justice. There is yet another evil to which those who are but imperfectly informed on the question at issue are peculiarly exposed; their opinion is always liable to be warped by extraneous circumstances, and they are in consequence involuntarily apt to bend facts to their first view of the case under consideration, to seize on a few circumstances which suit their preconception, and to neglect or distort those which have a contrary tendency; while, on the other hand, the practitioner who has prepared his mind by study and experience, will, with equal diligence, seek every avenue to truth, and will suspend his conclusions, until the result of each investigation be fairly before him; in delivering to the Court the opinion to which his researches have led him, he will be ever careful to distinguish between the duties of an advocate, and those of an unbiassed witness; he will state whether the conclusion at which he has arrived amounts to certainty, or only to high probability, and will separate the doubts and difficulties with which the question has been encompassed by the sophistry of counsel, from those that belong intrinsically to the subject, and are inseparable from it. And it may be proper

on this occasion to observe that the medical practitioner is not to withhold an opinion because it may be involved in doubt; he is to furnish the best evidence which the nature of the case will allow, and when he duly performs this task, he may feel proud in the consciousness that he occupies an important station in the administration of justice; and that he conscientiously discharges a duty, without the due performance of which, the laws of his country would be inoperative.

ARSON.

The charge of *Arson*(*a*) may occasionally become the subject of scientific research, and the accused individual receive an honourable acquittal at the hands of the chemical philosopher; by whose interposition, the conflagration, unjustly imputed to malice, may be proved to have originated from a spontaneous process of decomposition.

Spontaneous Combustion may be defined, *an inflammation occasioned by the re-action of different bodies upon each other, at the ordinary heat of the atmosphere, without the contact or approach of any other body previously raised to a high temperature.* This definition necessarily excludes that class of substances which evolve gaseous matter of a highly inflammable nature, but which requires the approach of an ignited body to kindle it.

(*a*) The crime of arson, at common law, is the malicious and voluntary burning of the house of another, by night or by day, whether in part or entirely. 3 *Inst.* 66. This felony was without benefit of clergy; but see *Poulter's* case, 11 *Rep.* 29, 2 *Hawk. P. C.* 503, 1 *Hale, P. C.* 570. All doubts on this point are now taken away by *Stat.* 9, *Geo.* 1, c. 22. *Britton* saith, "Soit inquise de ceux que feloniousment en temps de pace aient auters blees, au autres measons arses, et ceux que serr de ceo attaint, soient arses, issint que its soient punies per mesme le choz dont ilz pecherent." But this mode of punishment has been long changed, 1 *Hale, P. C.* 566; outhouses and barns, parcel of the dwelling house and barns having corn in them were included under the word house, for it was not necessary as in burglary to say in the indictment *domum mansionale* (1 *Hale, P. C.* 567, *Barham's case,* 4 *Co. Rep.* 20;) to take away clergy, these distinctions are ended by 9 *Geo.* 1. See stats. 21 *H.* 8, *c.* 1; 23 *H.* 8, *c.* 1; 37 *H.* 8, *c.* 26; 1 *Ed.* 6, *c.* 12; 4 and 5 *P. and M. c.* 4; 43 *Eliz. c.* 13; 22 and 23 *Car.* 2, *c.* 7; 9 *Geo.* 1, *c.* 22, made perpetual by 31 *G.* 2, *c.* 42; 28 *G.* 2, *c.* 19; 1 *G.* 1, *c.* 48; 10 *G.* 2, *c.* 32; 9 *G.* 3, *c.* 29; see also *Jac. L. dict.* tit. Burning, and *Hawk. P. C.* by *Leach.*

The subject of *spontaneous combustion* has attracted the attention of many very eminent chemists, and an extensive series of experiments has been instituted in several different countries for its complete investigation, the results of which have thrown considerable light upon the causes which operate in the production of the phenomenon, as well as upon the nature of the substances most liable to such an accension, and the particular circumstances which are essential to its occurrence. The following may be considered as the principal sources from which it may originate, viz.

I. Friction.

II. Fermentation of Vegetable and Animal Substances, as that of *hay, oatmeal, roasted bran, coffee, &c. rags in paper-mills, &c.*

III. Chemical Action. *Accension of oils, by various animal, vegetable, and mineral substances; accension of vegetable matter by concentrated acids; ignition of lime by the affusion of water; ignition of pyrites.*

We shall proceed to consider these subjects more in detail.

1. Friction. The kindling of machinery, when not sufficiently greased, from the friction of its various parts, has occurred too frequently to require much illustration, although the immediate cause of the phenomenon involves in its consideration so many recondite points in the theory of Caloric, as at present to elude our attempts at explanation; we must therefore rest upon it as an ultimate fact, and be satisfied with availing ourselves of the advantages to which a knowledge of it may conduce. The original inhabitants of the New World, throughout the whole extent from Patagonia to Greenland, procured fire by

rubbing pieces of hard and dry wood against each other, until they emitted sparks, or kindled into flame; some of the people to the north of California produced the same effect by inserting a kind of pivot in the hole of a very thick plank, and causing it to revolve with extreme rapidity: this fact will explain how immense forests have been consumed, from the violent friction of the branches against each other by the wind.

II. Fermentation of Vegetable and Animal Substances. In order to establish the process of fermentation, the presence of water appears indispensable; we accordingly find that in all the cases of spontaneous combustion which have originated from this source, the substances have either been in themselves imbued with moisture, or they have possessed the power of absorbing a considerable portion of water from the atmosphere. The firing of hay, when stacked in too moist a condition, is a striking exemplification of this fact; the same circumstance occurs from great accumulations of turf, flax, and hemp, heaps of linen rags in paper-mills, &c. provided a sufficient portion of moisture be present to excite the process of fermentation, and the consequent evolution of heat. *Oatmeal*, from the extreme avidity with which it imbibes water, (*a*) and the heat which is generated by the absorption of it, is necessarily liable to spontaneous combustion; the following well authenticated case (*b*) may serve as an illustration of this fact: "A gentleman removed with his family from

(*a*) *Mr. Leslie* has availed himself of this property in oatmeal, and has applied the substance in the place of Sulphuric acid, in his ingenious and beautiful experiment of freezing in the exhausted receiver of the air pump.

(*b*) Annals of Philosophy, vol. xvi, p. 390.

Glasgow to Largs, in May last, and shut up his house, which was not re-opened until the end of August; the house stands on the side of a steep declivity, so that the kitchen which is in the back part, though sunk considerably below the level of the street, is entirely above ground, and is well lighted and ventilated. In an opening of the wall, near the kitchen fire-place, originally intended it is supposed for an oven, there was placed a wooden barrel bound with iron hoops, and filled witho *atmeal.* This meal, which had heated during the absence of the family, at last caught fire, and was totally consumed, together with the barrel which contained it, nothing remaining but the iron hoops and a few pieces of charcoal." In some cases torrefaction increases the propensity of vegetable substances to spontaneous combustion; *coffee*, roasted *French beans*, *lentils*, &c. are of this description. Some years ago a great fire broke out in the village of *Nauslitz*, which is said to have been occasioned by the application of *roasted* bran to the necks of some cattle in a wooden cow-house; in consequence of which, *M. Rude* an apothecary at *Bautzen*, instituted some experiments, by which he found that if rye-bran, roasted until it acquires the colour of coffee, be wrapped up in a linen cloth, it will in a short time take fire. *Montet* relates (*a*) that animal substances may also, under certain circumstances of decomposition, kindle into flame; and he tells us that he had himself witnessed the spontaneous accension of a dunghill. We do not believe that the phosphoric appearances that so frequently accompany the process of putrefaction, especially that of fish, are ever connected with actual combustion. Woollen stuffs are said to have taken fire spontaneously; it is

(*a*) Memoires de l' Aeademie de Paris, 1743.

related for instance that the article manufactured at Cevennes, and which bears the name of "*Emperor's Stuff*," has thus kindled of itself, and burnt to coal; we are, however, very doubtful whether such a material is liable to this process, unless it be impregnated with oily matter; and this doubt will receive considerable strength from the facts which we shall hereafter enumerate.

III. Chemical Action. This proves a very frequent cause of *spontaneous combustion;* and there is perhaps no substance that has so frequently performed the part of an incendiary as *fixed oil*, especially when of a drying nature, which with its various accomplices from the animal, vegetable, and mineral kingdoms, has in darkness and secresy consigned ships, houses, and manufactories to the flames. The following interesting occurrence is related in the *Edinburgh Philosophical Journal*: "About twenty-five pieces of cloth, each of which contained nearly thirty ells, were deposited upon wooden planks in a cellar at Lyons, on the eighth of July, 1815, in order to conceal them from the armies which then over-ran France; *in the manufacture of the cloth 25lbs of oil were used for a quintal of wool, and the cloth was quite greasy*, each piece weighing from 80lbs to 90lbs; the cellar had an opening to the north, which was carefully shut up with dung, and the door was concealed by bundles of vine-props, which freely admitted the air; on the morning of the 4th of August an intolerable stench was perceived, and the person who entered the cellar was surrounded by a thick smoke, which he could not support; a short time afterwards he re-entered with precaution, holding a stable lanthorn in his hand, and he was astonished to perceive a shapeless glutinous mass, apparently in a state of

putrefaction; he then removed the dung from the openings, and as soon as a circulation of air was established, the cloth instantly took fire. In another corner of the cellar lay a heap of stuffs which had been *ungreased* and prepared for the fuller, *but they had suffered no change.* In this case the agency of the oil was sufficiently evident. In June, 1781, a similar occurrence happened at a wool-combers in a manufacturing town in Germany, where a heap of wool-combings, piled up in a close warehouse seldom aired, took fire spontaneously; this wool had been, by little and little, brought into the warehouse, and from want of room, been piled up very high and trodden down; that this combed wool, to which rape oil mixed with butter had been added in the combing, burnt of itself, was sworn to by many witnesses; one of whom affirmed that ten years preceding a similar fire had happened among the flocks of wool at a clothiers, who had put them into a cask, where they were rammed down hard for facility of carriage, and that this wool burnt from within outwards, and became quite a cinder. Cotton goods, in which linseed oil had been spilt, have burnt in a similar manner, and there is reason to attribute to an accident of this kind the recent loss of a merchant-vessel homeward bound from the East Indies. Many years since, several fires broke out at very short intervals, in a rope-walk, and in some wooden houses in St. Petersburgh; in none of which instances could the slightest suspicion of wilful firing be entertained; there was lying in the rope-walk, where the cables for the navy are made, a great quantity of hemp, amongst which a considerable portion of oil had been carelessly spilt, and the article was accordingly declared to have been spoilt; in consequence of which it was purchased at

a low price, and being heaped up together, it had given rise to the conflagration; the inferior inhabitants had also purchased parcels of this spoilt hemp, for closing the chinks, and caulking the windows of their houses, a fact which offered an easy explanation of the origin of the fires that occurred amongst the houses. It was moreover reported that at the above-mentioned rope-walk coils of cable had been frequently discovered so hot, that the people were obliged to separate them to prevent farther danger. In the year 1757, as *Montet* reports, sail-cloth, *smeared with oil and ochre*, took fire in a magazine at Brest. In the spring of 1780, a fire was discovered on board a frigate lying in the road off Cronstadt, which, had it not been timely extinguished, would have endangered the whole fleet. After the most severe scrutiny no cause of the fire was to be found, and strong surmises existed that some wicked incendiary had occasioned it. In the month of August in the same year, a fire broke out at the hemp magazine in St. Petersburgh, by which several hundred thousand *poods* (*a*) of hemp and flax were consumed; the walls of this magazine are of brick, the floors of stone, and the rafters and covering of iron; it moreover stands alone on an island in the Neva, on which, as well as on board the ships lying in the river, no fire is permitted. In the same year a fire was discovered in a vaulted shop of a furrier; it merits notice that in these shops, which are all vaulted, neither fire nor candle are ever allowed, and the doors are all composed of iron: at length the cause of the conflagration was discovered; it appeared that on the evening previous to the fire the furrier had purchased a roll of

(*a*) A *pood* consists of 46 pounds Russian, or 36 English.

new cere cloth, (an article much in use for covering tables, counters, &c.) and had left it in his vault, where it was discovered almost consumed. After these several instances of spontaneous combustion, we shall relate the celebrated case which led to a satisfactory explanation of their origin, and induced the philosopers of different countries to confirm the Russian Report by an extensive series of well devised experiments. In the night of the 21st of April, 1781, a fire was seen on board the frigate *Maria* which lay at anchor, with several other ships, in the road off the island of Cronstadt; the fire was, however, soon extinguished, but the severest examination failed in extorting any satisfactory explanation of the manner in which it had arisen; the garrison were threatened with a scrutiny that should cost them dear, and were placed under circumstances of the most cruel suspense; in the midst of this confusion, the wisdom of the Empress gave a turn to the affair, and, in the following order to *Count Chernichet*, pointed out an effectual method to be pursued by the Commissioners of Inquiry. "When we perceived, by the report you "have delivered in of the examination into the acci- "dent that happened on board the frigate *Maria*, "that, in the cabin where the fire broke out, there "were found parcels of matting tied together with "packthread, in which the soot of burnt fir-wood "had been mixed with oil, for the purpose of paint- "ing the ship's bottom, it came into our mind that "at the fire which happened last year at the hemp "warehouses, the following cause, amongst others, "was assigned; that *the fire might have proceeded* "*from the hemp being bound up in greasy mats, or* "*even from such mats having lain near the hemp;* "therefore neglect not to guide your farther inquiries "by this remark."

As it appeared upon juridical inquiry that, in the ship's cabin where the smoke first appeared, there lay a bundle of matting containing Russian lamp-black prepared from fir-soot, moistened with hemp-oil varnish, which was perceived to have ignited sparks at the time of the extinction of the fire, the Russian Admiralty gave orders to institute various experiments with a view to discover whether such a mixture, folded up in a mat, would kindle spontaneously; a number of experiments was accordingly performed, and the result established the fact beyond the reach of controversy. The Russian Admiralty having thus satisfied the public with respect to the self-enkindling property of this compound, transmitted an account of their investigation to the Imperial Academy of Sciences, at whose desire *M. Georgi* repeated the experiments, by which he not only confirmed the report of the Admiralty, but extended the information which it contained, and deduced an important generalization of its views.

It sometimes happens that in boiling flowers and herbs in oil, which occurs in several pharmaceutic operations, these herbs after being taken out, dried, and pressed, inflame spontaneously; care therefore should be taken, when such substances are thrown aside, that they are not heaped up near other combustible bodies.

Amongst the mineral substances capable of exciting the inflammation of oils, an ore of Manganese, known by the name of the *Black Wad of Derbyshire*, holds a distinguished place; when this substance is pulverised, and moistened with a little linseed oil, it will in the space of an hour take fire, and become red hot, like burning small-coal; it is supposed that the Pantheon, in Oxford-street, was destroyed by

the inflammation of a compound of *Derbyshire wad* and oil, used in painting the scenery.

In these cases of combustion, oxygen seems to act an important part, and by combining with the hydrogen of oil to excite a chemical action which may be considered the immediate cause of the phenomenon. Saw-dust, and other vegetable matter, has been occasionally excited into flame by the action of the concentrated mineral acids; we have been lately informed by *Mr. Parkes*, that a fire took place some years since in his chemical manufactory, in consequence of the leakage from a carboy of nitric acid. Several instances are also on record of fires having been occasioned by the sudden slacking of quicklime; *Theophrastus* relates an instance of a ship which was loaded in part with linen, and in part with quicklime, having been set on fire by water that was accidentally thrown over the latter, and that the vessel was in consequence entirely consumed. In the *Journal de la Haute Saone* there is an account of the burning of a barn, one of the partitions of which being wood had caught fire from a quantity of quicklime, intended for the repair of the premises, having been carelessly thrown against it. In this country a similar accident happened in the last winter at Edmonton, near London; the flood, consequent upon a heavy fall of rain, made its way among the quicklime in a bricklayer's premises, which took fire and were burnt.

There still remains for notice another source of spontaneous burning,—the ignition of *Pyrites*, and that of cinders from the furnaces of glass-works, from exposure to air and moisture; it was in this manner that the ship *Ajax* was supposed to have been consumed, from the spontaneous combustion of coal, abounding in *Pyrites*.

HUMAN COMBUSTION.

Before we quit the consideration of *spontaneous combustion*, it becomes our duty to offer a few observations upon a subject which appears to be nearly allied to it, and which certainly belongs to medico-judicial inquiry,—*the combustion of human beings*; the phenomenon, however, has been erroneously designated as *spontaneous*, for in every recorded instance, the approach of some burning body, as that of the flame of a candle, or an ignited pipe, appears to have been necessary for its occurrence. "It can no longer be doubted," says *Dr. Gordon Smith*, "that persons have retired to their chambers in the usual manner, and in place of the individual, a few cinders, and perhaps part of his bones, were found." Upon this occasion we confess ourselves more sceptical; the phenomenon is contrary to all our preconceived views, and must therefore require more than ordinary testimony for its support, although we are ready to admit, that upon any other less miraculous subject, evidence even less powerful than that produced on the present occasion, would be deemed amply sufficient. *Plouquet*, in his *Literatura Medica*, enumerates twenty-eight cases. *Dr. Trotter*, in his Essay on Drunkenness, adduces a considerable number of instances of persons addicted to the immoderate use of spirits, having undergone such combustion. In Paris, an essay written exclusively on this subject was published by *Pierre Aimée Lair*, entitled "*Essai sur les combustions humaines, produites par l' abus des liq. spirit: Paris* 1808;" and

the journals of various nations (*a*) present us with a great variety of examples, all of which, with some slight shades of difference, appear to have been attended with the same phenomena: a fact which we freely admit affords internal evidence of their authenticity. On the other hand it deserves notice, that amidst all these cases, *only one* (*b*) is related where the

(*a*) We also refer the reader to the article "*Combustions Humains Spontanées*" in the *Dictionnaire des Sciences Medicales;* also to the *Philosophical Transactions* for 1745; and *Phil. Trans. Abr. v.* 10, *p.* 1073.

(*b*) This was the case of the priest *Bertholi*, described in one of the Journals of Florence for October 1776, by *M. Battaglia*, the surgeon, who attended him; we extract a short account of this extraordinary event from *Foderé* (tom. 8, p. 210) who to his own observations on the subject adds those of *Fouquet*, *Marc*, *Koopt*, and others. *Don Gio Maria Bertholi* having spent the day in travelling about the country, arrived in the evening at the house of his brother-in-law; he immediately requested to be shewn to his destined apartment, where he had a handkerchief placed between his shirt and shoulders, and being left alone, betook himself to his devotions. A few minutes had scarcely elapsed when an extraordinary noise was heard from the apartment, and the cries of the unfortunate priest were particularly distinguished; the people of the house hastily entering the room, found him extended on the floor, and surrounded by a light flame which receded (*à measure*) as they approached, and finally vanished. On the following morning, the patient was examined by *M. Battaglia* who found the integuments of the right arm almost entirely detached and pendant from the flesh; from the shoulders to the thighs the integuments were equally injured; and on the right hand, the part most injured, mortification had already commenced, which notwithstanding immediate scarification rapidly extended itself. The patient complained of burning thirst, and was horribly convulsed, he passed by stool putrid and bilious matter, and was exhausted by continual vomiting accompanied by fever and delirium. On the fourth day, after two hours of comatose insensibility, he expired; during the whole period of his suffering, it was impossible to trace any symptomatic affection. A short time previous to his decease, *M. Battaglia* observed, with astonishment, that putrefaction had made so much progress that the body already exhaled an insufferable odour, worms crawled from it on the bed, and the nails had become detached from the left hand.

The account given by the unhappy patient was, that he felt a stroke like the blow of a cudgel on the right hand, and at the same time he saw

person survived for a short time, and gave an account of the manner in which he was *struck* with the fire; in none of the others has it ever been known in what way the fire commenced, or proceeded. The following are the circumstances in which all the recorded cases so singularly concur.

1. The persons who have suffered this species of combustion have been long accustomed to drink spirtuous liquors.
2. These persons have been generally females, and advanced in years.
3. The body has not burned *spontaneously*, but accidentally, in as much as it required for its inflammation the contact or approach of some burning body, or that of electric matter.

a lambent flame (*bluette de feu*) attach itself to his shirt, which was immediately reduced to ashes, his wristbands (*poignets*) at the same time being utterly untouched. The handkerchief, which as before mentioned, was placed between his shoulders and his shirt, was entire, and free from any trace of burning; his breeches were equally uninjured; but though not a hair of his head was burnt, his coif (*calotte*) was totally consumed. The weather on the night of the accident was calm, the air very pure; no empyreumatic or bituminous odour was perceived in the room, which was also free from smoke; there was no vestige of fire, except that the lamp, which had been full of oil, was found dry, and the wick reduced to cinder.

Maffei (says *M. Battaglia*) would have found in the case of the Priest *Bertholi* a confirmation of the opinion delivered by him (*Journ. de med. tome* 68, p. 436) that lightning is sometimes excited in us, and destroys us.

See the works of the *Abbè Fontana*, entitled *Ricerche filos, sopra la ficic. animale.*

M. Foderè observes, that the inflamed hydrogen, occasionally observed in church-yards, vanishes on the approach of the observer, like the flame which consumed *P. Bertholi*; and as he, in common with others, has remarked that this gas is developed in certain cases of disease, even in the living body, he seems inclined to join *M. Marc* in attributing this species of spontaneous combustion to the united action of hydrogen and electricity in the first instance, favored by the accumulation of animal oil and the impregnation of spirituous liquors.

4. The extremities of the body, such as the feet and hands, have in general escaped.
5. The fire has little injured, and sometimes not at all, those combustible things that were in contact with the body when it was burning. (*a*)
6. The combustion of these bodies has left a residue of greasy and fœtid ashes and fat, that were unctuous, and extremely offensive and penetrating.

Various theories have been proposed for the explanation of this singular phenomenon; and we may here observe, that if the bodies in question were actually found consumed, in the manner described, it is quite impossible to suppose that they were burnt by ordinary means; nor, even admitting that they had been rubbed over with a highly combustible substance, is the explanation less difficult; at a period when criminals were condemned to expiate their crimes in the flames, it is well known what a large quantity of combustible materials was required for burning their bodies. A baker's boy, named *Renaud*, being several years ago condemned to be burnt at Caen, two large cart loads of faggots were required to consume the body; and at the end of more than ten hours some remains were still visible. In this country the extreme incombustibility of the human body was exemplified in the case of Mrs. King, who having been murdered by a Foreigner, was afterwards burnt by him; but in the execution of this plan he was engaged for several weeks, and after all did not succeed in its completion.

(*a*) See case of *Marie-anne Jauffret*, A.D. 1779, (*Foderé*, vol. iii, p. 206) where also see other cases in illustration of this curious subject. *Foderè* alludes to some cases where in consequence of combustion, possibly spontaneous, persons have been accused and condemned for murder. *Tom.* 3, *p.* 204. See also *Maclaurin's Crim. Ca. p.* 177 *n.* and 754.

2. RAPE.

RAPE is the unlawful and carnal knowledge of a woman by force and against her will: a ravishment of the body and violent deflowering her, which is felony by the common and statute law. *Co. Litt.* 190, 124. (*a*) Formerly it was the law (especially in case of appeals of rape) in order to prevent malicious accusations, that the woman should immediately after, "*dum recens fuerit maleficium*," go to the next town, and there make discovery to some credible persons of the injury she had received: and afterwards acquaint the high constable of the hundred, the coroners and the sheriff with the outrage. *Glanv. l.* 14. *c.* 6: *Bract. l.* 3. *c.* 28. 1 *Hales P. C.* 632. Afterwards by statute *Westm.* 1. 3. *Ed.* 1. *c.* 13. the time of limitation was extended to forty days. At present there is no time of limitation fixed, for it is punished at the suit of the king, and the maxim of law takes place, that, *nullum tempus occurrit Regi.* The appeal of Rape (for there were fomerly several

(*a*) The law of England justifies a woman killing one who attempts to ravish her. *Bac. Elem. p.* 34. 1 *Hawk. P.C. c.* 38. *s.* 21. and so too the husband or father (query also a brother or guardian, *in loco parentis*) may justify killing a man who attempts a rape upon his wife or daughter; but not if he takes them in adultery by consent, for the one is forcible and felonious, but not the other. 1 *Hales P.C.* 485. (yet this homicide may be excusable though not justifiable. See 1 *Hawk. P. C. c.* 28. *s.* 3.) And there seems no doubt but the forcibly attempting a crime of a still more detestable nature, may be equally resisted by the death of the unnatural aggressor. For the one uniform principle that runs through our own, and all other laws, seems to be this; that where a crime, in itself capital, is endeavoured to be committed by force, it is lawful to repel that force by the death of the party attempting. *Bl. Comm. c.* 14.

appeals beside that of murder) has been long obsolete; see *Jac. Law Dic. tit. Appeal*, and is now abolished by the statute 59 *Geo.* 3, *c.* 46: (*a*). But though there is no time limited, a jury will seldom give credit to a stale complaint. In Scotland it is said the limit was twenty-four hours; the King against Colonel *Charteris*, *Maclaurin's Crim. Cases*, *p.* 66. 69. And in a medical point of view it is yet more necessary that examination should be immediate, many collateral proofs might be observed on an early enquiry, all signs of which would be obliterated in a few hours. (*b*) This remark applies as well to the sup-

(*a*) This statute was passed in consequence of a Wager of Battle offered by *Abraham Thornton*, appealed for the murder of *Mary Ashford*. The decision of causes by combat was always absurd, and it was certainly full time that it should be abolished; but it is not equally evident that the appeal ought to have been taken away altogether, especially in cases of murder. The preamble of the Act states the proceeding to "have been found to be oppressive;" certainly it was also rare; in above one hundred years there had been only one execution on appeal, and when the case of the *Kennedies* (see *Bigby v. Kennedy*, 5 *Bur.* 2643) is considered, it may fairly be doubted whether some constitutional check ought not to have been retained against the misdirection of the Royal prerogative. See also the case of *M'Quirk* for the murder of Mr. *Clarke*.

(*b*) The injuries thus occasioned, consist in rupture of the hymen, swelling, contusion, inflammation, or laceration of the parts, discharge of blood; and in persons of extreme youth, the laceration of the perineum is said to have sometimes occurred; and as Rape cannot be completed without considerable violence, we should also expect to find marks of force in other parts of the body, such as bruises about the arms and thighs; but in appreciating the value of such indications, let the practitioner remember, that the greater part of them may occur where the connexion has taken place with the consent of the female, or they may even be the effect of disease. Dr. *Percival* relates a case where the inflammation of the pudenda, and symptoms of defloration occurred in a child four years old, which occasioned her death; there were strong reasons for suspecting that she had been injured by a boy of fourteen years of age, and he was accordingly taken into custody; but the case received elucidation from several others of a similar nature

posed criminal as to the sufferer; both should in all possible cases be subjected to immediate surgical examination; the case related by Sir *Matthew Hale*, *(P.C.)* furnishes an instance where an innocent man might have been saved from a malicious prosecution, to the hazard of his life, by this precaution. *Foderè*, in his work on Medical Jurisprudence, vol. 4, p. 363, mentions two cases from *Zacchias*, where the falsehood of an accusation was determined by a comparative inspection of both parties. See also the same work, and vol. 4, p. 365. 370. (*a*)

As this is a crime of which the accusation is peculiarly easy, and the disproof proportionably difficult, more than ordinary acuteness is necessary for its investigation; and this can be best exercised while the

having been shortly afterwards received into the same hospital, and of whose nature no doubt could be entertained. When Rape has been committed, gonorrhœa, or lues venera are sometimes communicated, especially in cases of young children, in consequence of a very general opinion among the lower libertines of the male sex, that the best possible cure for this disease, is intercourse with a virgin; if then the accused should be found free from disease, where the female is contaminated, and vice versa, it affords a strong presumption of his innocence; in conducting, however, such an investigation, there are several sources of fallacy, with which it is the duty of the medical enquirer to be fully acquainted; he should know, that purulent discharges, from other causes, do take place in children; and on the other hand that a person, in whom no appearance of existing venereal infection can be discovered, may communicate disease to others; this fact was ascertained by Mr. *John Hunter*, and its truth has been satisfactorily confirmed by the repeated observations of succeding surgeons. Women labouring under leucorrhœa may impart a discharge to the male; and Dr. *Male* observes, that the latter, affected by a gleety discharge in consequence of strictures, and other irritations in the urethra, may also affect the females.

(*a*) Enfin il faut adjouter la comparison de l'organe offensant avec l'organe offensé; car, ainsi que dans les autres blessures, il n'est pas indifférent ici de présenter l'instrument à la plaie dont on le suppose coupable, 4 *Fod. p.* 359.

event is recent, and before one or other of the parties can have time, deliberately, to frame the account of their injuries or innocence: here, as in some cases of murder, to which we shall have occasion to allude, the medical practitioner is likely to be one of the earliest witnesses to the conduct of the accuser (if not also, of the accused), immediately after the alleged transaction; to him therefore the Court will look, not only for surgical, but also for general observations. The following are among the first that will occur.

1st. What is the age, strength of body and mind, situation in life, and general character of the accuser?

2d. The same of the accused.

3d. Had the parties any, and what previous acquaintance and intimacy?

4th. What external and obvious signs are there of violence?

5th. What surgical proof of coition, whether voluntary or violent?

6th. Is either party tainted by any, and what disease?

Time, place, and circumstances of the alleged offence.

A female infant, under twelve years of age, is in law deemed incapable of consenting to any act, much less to her dishonor; the carnal knowledge of such infant, whether she yield or not, is therefore virtually a rape; but whether, if the child be above ten years of age, it be also a felony, has been questioned: Sir *Matthew Hale*, 1 *P. C.* 631, was of opinion that such profligate actions, either with or without consent, amount to rape and felony, as well since as before the statute of *Queen Elizabeth*; but in his Summary, the learned judge appears to have altered his opinion. And the

present practice is, that if the child be under ten years of age, then it is felony by the statute; but if she be above ten and under twelve, then it is no rape if she consented, but only a misdemeanour; *Stat. West.* 1 *c.* 13, see 1 *East's P. C.* 435.

The abominable wickedness of carnally knowing and abusing any woman child under the age of ten years, in which case the *apparent* consent or non-consent is immaterial, as by reason of her tender years she is incapable of judgment and discretion, is felony without benefit of Clergy, 18 *Eliz. c.* 7. It is lamentable to reflect that this crime should have been of very constant occurrence, and that it should not unfrequently have been committed by hypocrites, who had been entrusted with the education of their victims. In 1758, *John Forbes*, chaplain and schoolmaster of Dalkeith, (*a*) was convicted of a variety of libidinous acts, and also several rapes; and of his having carnal knowledge of a girl (one of his pupils) under twelve years of age. He was sentenced to be whipped and banished: the king's advocate having "in respect it is known to him, that the evidence of "the rape and carnal copulation will be proven only "by girls under age," restricted the indictment to an arbitrary punishment. *Maclaurin's Crim. Ca. p.* 186. 755.

In 1777, the Rev. *Benjamin Russen*, a puritanical schoolmaster, was convicted and executed for a simi-

(*a*) In this case it was stated that the law of France did not make any distinction between debauching a child under twelve, or a woman at maturity. However this may have been, the cases afterwards quoted shew that the breach of trust was severely visited on two priests. Arrêt du Parliament de Grenoble, qui condamna un prêtre d'être pendu, puis brulé, pour avoir abusé du sacrament de confession, porté ses mains sur le sein et autres parties de plus de cent femmes, pendant qu'il confessoit.

lar offence, on a girl under ten years of age. See 1 *East.* 438. *Ann Reg.* Many other instances might be cited, if it were necessary here to enforce upon the minds of parents, the expediency of minute enquiry into the habits of those to whom they entrust the custody of their children; and that they should not be deceived by professions of extraordinary sanctity. (*a*) Nature has this revenge against those who pretend exemption from her frailties, that to sustain their hypocricies, they fall into greater crimes than those which they profess to avoid; assuming to be more than man, they degrade themselves to beasts. See case of *Thomas Weir* and *Jane* his sister. *Maclaurin, C. C. p.* 1 (*b*).

The crime of violating a child, under the age of consent, is the more scrupulously to be investigated, as one mode of proof is too frequently excluded; the testimony of the sufferer, if she be of very tender age, is not evidence; the greater therefore the atrocity of the offence, the greater is the difficulty of conviction; "If the rape be charged to have been committed on an infant under twelve years of age, she may still be a competent witness, if she hath sense and understanding to know the nature and obligations of an oath, or even to be sensible of the wickedness of telling a deliberate lie; nay, though she hath not, it

(*a*) In France this crime is visited with additional severity when committed by a person in trust, or by a Clergyman; *Penal Code, art.* 333. This principle of apportioning punishment is recognised in our laws of Petit-treason, and robbery by servants: it might be well extended to Rape.

(*b*) See also the case of *John Church*, convicted of an abominable attack. On the expiration of two years imprisonment to which he was sentenced, he resumed his methodistic (we cannot call them clerical) functions, and is now attended by large congregations, especially of old women!!!

is thought by Sir *Mathew Hale*," (1 *P. C.* 634) "that she ought to be heard without oath, to give the Court information; and others have held, that what the child told her mother or other relations, may be given in evidence; since the nature of the case admits frequently of no better proof. But it is now settled, by a solemn determination of the twelve Judges; that no hearsay evidence can be given of the declarations of a child, who hath not capacity to be sworn; nor can such child be examined in Court without oath: and there can be no determinate age at which the oath of a child ought either to be admitted or rejected;" but their admissibility depends upon the sense and reason they entertain of the danger and impiety of falsehood, which is to be collected from their answers to questions propounded to them by the Court. *Brazier's case*, 1 *Leach's Crown Law*, 237. *Powell's case*, *ib.* 128. *Rex v. Travers*, 2 *Strange*, 700. (*a*)

A female may suffer violation at any age beyond absolute infancy; and the criminal records also furnish examples of brutality towards women of a very advanced period of life. As to the other sex, it may frequently be necessary to consider, at what age a boy may be capable, or an old man incapable, of committing the offence (*b*). No determinate line can be drawn in either case, every instance must therefore rest upon its peculiar circumstances; this may however be allowed as a general rule, an attempt at violation is as extraordinary on the part of extreme youth, as its completion is improbable in advanced old age. Sir *M. Hale* says (1 *P. C.* 631), "A male infant under the age of "fourteen, is presumed by law incapable to commit

(*a*) See also 1 *East. P. C.* 441. and cases there.

(*b*) Vide ante. *p.* 185.

"a rape, and therefore it seems cannot be found "guilty of it. For though in other felonies *malitia* "*supplet ætatem*; yet as to this particular species of "felony, the law supposes an imbecility of body as "well as of mind." (4 *Bl. Com. c.* 15). This imbecility however is not universal, as we have previously shewn when treating of the age of Puberty.

After having determined the age, the most material examination is as to the relative bodily strength of the parties. It is at all times difficult to believe that in a mere conflict of strength, any woman of moderate power of body and mind, could suffer violation, so long at least as she retained her self possession. (*a*) All accusation therefore must be viewed with suspicion, if there be not a great disparity of strength in favour of the assailant. But this remark must not be construed to extend to cases, where by long continued violence, intimidation, or other circumstances, the woman is ultimately overcome; for her mental suffering may very considerably exhaust her power of resistance; "and it is no excuse or mitigation of the crime, that the woman at last yielded to the violence; and consented either after the fact, or before, if such consent was forced, by fear of death, or duress," 1 *Hawk. Pl. c.* 41. *s.* 2. *Co. Lit.* 123. 1 *Hale's Pl.* 629. The mental power of the sufferer is also to be regarded; if it were considerable, greater power of resistance is to be expected; the contrary, if the woman were weak and timid; and if she were actually imbecile, "A poor innocent that could not say him

(*a*) Elle a infiniment plus de moyens pour se defendre que l'homme n'en a pour attaquer, ne fût ce que le movement continuel: Une Reine éluda autrefois l'accusation d'une plaignante: elle prit un fourreau d'épée, et le remuant toujours, elle fit voir à la dame qu'il n'etait pas possible de mettre l'épée dans le fourreau. 4 *Fodere*, 358.

nay;" the crime varies little or nothing in atrocity from the violation of an infant. We are not aware that any such case is on record, though the late investigations into the conduct of some keepers of madhouses leave reason to fear that such crimes have been committed.

The external signs of violence ought to be enquired into upon the spot on which the crime is said to have taken place, and that as soon after the alleged commission as possible; that the state of surrounding objects may be determined, as well as the incidental injuries, as bruises, strains, &c. which either of the parties may have received in the struggle; the state of their clothes must be examined, and every circumstance, however minute, carefully noted. The case of *Abraham Thornton*, Warwick assizes, 1817, and the subsequent proceedings on the appeal in the King's Bench, *Easter T.* 1818, 1 *Bar. & Ald.* 405, will shew how material such examination may prove. Many of the observations to be made on cases of murder equally apply to those of rape; to them we must refer.

It is not necessary that the party violated should be proved a virgin (*a*) up to the period of the alleged

(*a*) Virginity in females has been very differently estimated by different nations; in the first ages of the Christian church so highly was it honoured and esteemed, that women were admitted to make solemn vows of it in public; and yet among the Jews it was held infamous for a woman to die a maid. In Peru and several other provinces in South America, we are assured by *Pedro de Cieca*, in the history of the Incas, &c. that men never marry, but on condition that the next relation or friend of the maid shall undertake to take away her virginity; and our countryman, *Lawson*, relates the like of some of the Indian nations of Carolina—So little is the *Flos Virginis* valued in some places!

De virginitatis signis. This has been a very favourite subject with the speculative writers of both ancient and modern times, but none appear to have come to any very satisfactory result upon the question; nor is

crime; for it may be committed on the person of a married woman, or of a widow; nay more, the law extends its protection against violence to those who have been notoriously unchaste; even a common strumpet is still under the protection of the law, and may not be forced, (1 *Hawk. Pl.* 108.) and it is not certain that she had not repented, and determined to

it even yet agreed in what the quality consists; some will have it a moral, others a purely corporeal qualification. " Porro virginitas, dicit " Zacchias, si magis materialiter sumatur, nihil aliud est quam naturalis " constitutio et cohœrentia vasorum mulibrium, quæ sic accepta potest " facillime amitti; destructa enim vel manibus, vel alio quocumque in- " strumento naturali constitutione et cohœrentia earum partium, illico " destructa dicitur et ipsa virginitas." 2 *M. L. l.* 4. *tit.* 2. If the words *culpa muliebri, aut coitu virili*, had been added, we might have acceded to the latter part of this definition; the matter however is rather one of etymological curiosity, than of medical jurisprudence, and therefore we shall proceed to quote from the best authorities we have been able to discover on the subject, the various signs by which this state may be ascertained; with this reservation always of our own opinion, that though the presence of all the enumerated circumstances may be taken as sufficient proof of virginity, the absence of some or many of them, especially if explained by physical causes, is no evidence to the contrary. " Le " fanciulle sane ed intatte hanno le parte esterne della generazione dure, " sode, lucide, e di un colore incarnato; l'imene intero; le labra della " vulva bene unite; le nimfe picciole e coperte; la clitoride col preper- " zio corto; le rughe della vagina eminenti, apparente e fra loro con- " tigue; i seni mucosi profondi; l'orifizio dell' uretra angustissimo. " Lasciando a parte i ridicoli segni tolti dai peli del petigone più o " meno crespi, dalla sibilosa escrizione delle orine; dalla voce; dalla " grosseza del collo; dal odorato, come vien detto di un bravo Religioso " di Praga che al solo odore sapea distinguere una vergine donna da " una deflorata; dal resultato degli sperimenti fatti colla polveri di " agata, di succino, di ambra, che legonsi appresso molte Scrittori, che " se divertono con bagatelle: noi divideremo i sobraesposti segni di " virginità in primarj ed in secondarj. Tra i primi, creduti i meno " fallaci si contano le rugosità della vagina lumide e spesse; l'oscula " della medesima angusto; l'imene presente; ed il frenulo alto e molto " teso." Such are the signs laid down by *Tortosa*, vol. 2. p. 4.; following *Nessi*, *Zacchias*, and *Rœderer*; the writer then proceeds to examine each of these circumstances with considerable minuteness.

reform. Yet in the case of a person of notoriously bad reputation the strongest possible evidence would be required to warrant a conviction.

"A very considerable doubt having arisen as to what shall be considered sufficient evidence of the actual commission of this offence, it is necessary to enter into an enquiry which would otherwise be offensive to decency. Considering the nature of the crime, that it is a brutal and violent attack upon the honor and chastity of the weaker sex, it seems more natural and consonant to those sentiments of laudable indignation which induced our ancient lawgivers to rank this offence among felonies, if all further enquiry were unnecessary after satisfactory proof of the violence having been perpetrated by the actual penetration of the unhappy sufferer's body. The quick sense of honor, the pride of virtue, which nature, to render the sex amiable, hath implanted in the female heart, as Mr. Justice *Foster* has expressed himself, is already violated past redemption, and the injurious consequences to society are in every respect complete. Upon what principle, or for what rational purpose, any further investigation came to be supposed necessary, the books which record the dicta to that effect, do not furnish a trace." 1 *East. P. C.* 436.

But on the other hand it must be allowed, that as this is a crime peculiarly easy in accusation, and difficult in defence; and as experience has shewn that prosecutions for this offence are very frequently resorted to from motives of revenge, malignity, disappointment, or extortion; the law has done well to extend its best protection to the possibly innocent, while it reserves its severest punishment for the truly guilty. It has occurred that there has not been the slightest ground for the accusation, that coition has

never taken place, or been attempted by the party charged; the ordinary details are easily invented, and very colourable circumstantial evidence is soon obtained by the designing accuser; it is only in the minuter points of examination, to which the present practice gives occasion, that she will trip in her evidence; it is to that only that the accused can look for safety when a well forged tale, artfully compounded of truth and falsehood, is prepared for his destruction. Nor is it uncommon that a woman, who has actually consented to her own dishonor, should, on fear of discovery, or on disappointment, or from jealousy, prefer an accusation of rape against her seducer; here the main fact being true, the coition having taken place, and under the usual circumstances of secresy, the life of a prisoner depends on the mere question of consent or violence; the prosecutrix being the principal, or more generally, the only witness, it is essential that her testimony should be subjected to the most rigid examination, and that all external circumstances should be sought which might tend to confirm or destroy it.

The first and most material point to be proved is, that the venereal congress or coition has actually taken place; but as to the exact legal definition of this act, much difference of opinion has existed; for while some learned authorities have held, that penetration alone is necessary, others have maintained that the crime is not perfected without *emissio seminis* also. Lord *Coke*, defining "*carnal knowledge*," says, there must be *penetratio*, that is *res in re*; but the least penetration maketh it carnal knowledge.(*a*)

(*a*) Many of the judges denied that carnal knowledge was necessary to be laid in the indictment; but only that the defendant ravished the party. *Hill's* case. *Tr. Term*, 1781.

So in the case of *Russen* the schoolmaster, it was proved by two surgeons on behalf of the prisoner, and corroborated by four others who had examined the girl, that the Hymen (which *they* considered an indubitable mark of virginity (*a*) was whole and un-

(*a*) *M. Capuron*, in his *Medicine Legale relative a l'art des Accouchemens*, published at *Paris*, 1821, enters with some minuteness into the discussion of these signs; and comes to the conclusion, that we shall endeavour to impress upon the reader, that no one of the signs is in itself sufficient to establish the fact; nor is the absence of all, conclusive against its existence; all that the most experienced medical observer can do, is to shew a strong probability, which united to moral evidence of the character and conduct of the party, will amount to proof. Χρη παντα θεασασθαι τα σημεῖα, και μη πιστευειν ενι.

Respect for the Jewish ritual, *Deut.* c. 22. has led a great part of mankind into an error on this subject, and as it is one which has too often destroyed matrimonial confidence, by exciting unjust suspicions, we think it worthy of notice here, though not immediately necessary to our subject. L'hymen a été considéré comme le sceau de la virginité phy-
" sique. Mais pour admettre un pareil signe, il faudroit qu'il existât
" naturellement chez toutes les vierges sans exception, et qu'il ne se
" recontrât jamais chez celles qui auraient été deflorées; en un mot,
" qu'il ne pût être détruit ou effacé que par la copulation. D'abord la
" membrane dont nous parlons n'est pas universelle. A la vérité, on
" ne peut contester qu' elle exist chez la plûpart, même chez le plus
" grande nombre des vierges; celà est confirmé par le temoignage de
" *Morgagni*, *de Haller*, *de Diermerbroeck*, *de Riolan*, *de Bartholin*, *de Heister*
" *et de Ruisch.* — *Dulaurans*, *Bohn*, *Dionis*, *de la Mothe*, *Buffon*, *Palfin*,
" *Fallope*, *Vesale*, *Colomb*, *Mahon*, ect. en ont formellement nié l'existance.
" [Nous pouvons certifier nous-même ne l'avoir point trouvée chez
" plusieurs petites filles, immediatement après leur naissance, tandis que
" nous l'avons recontrée, sous la forme d'un anneau qui bordait l'orifice
" du vagin, chez une femme célibataire de soixante-cinq ans. * * on
" le peut rencontrer, non seulement chez les filles deflorées, mais encore
" chez des femmes enceintes, et pres d'être meres ! ! Gavard rapporte
" l'example d'une fille de treize ans qui avait gagné la maladie véné-
" rienne dans un lieu public, et qui neanmoins conservait encore cette
" marque de virginité. Severin Pineau assure aussi que deux jeunes
" personnes reçurent, dans le temps des règles, les embrassemens d'un
" homme sans éprouver la moindre dechirure de l'hymen. On conçoit
" en effet avec *Teichmeier* et *Brendel* que celà est très possible dans le
" temps de la menstruation; car alors l'orifice du vagin devenant plus

broken, and that the passage was so narrow that a finger could not be introduced. But it was admitted that this membrane, the existence or non-existence of which has been strongly controverted,(*a*) was in some

" souple et plus large qu' à l'ordinaire, peut admettre plus facilement " le membre de l'homme qui peut être aussi fort petit: ajoutons à cela " que l'hymen, surtout quand il est de forme semi-lunaire, humecté et " remolli par l'ecoulement du sang menstruel, peut offrir moins de re- " sistance, ceder et s'appliquer à la surface interne du vagin, et per- " mettre la copulation sans se rompre. *Mauriceau* a cité plusieurs fem- " mes enceintes dont l'hymen etait dans son intégrité. *Ruisch* parle " d'une femme dont la delivrance était empêchée, non-seulement par " l'hymen, mais encore par une autre membrane non naturelle. On " trouve des faits analogues dans *Meckel* et *Walter*. *Beaudelocque* rap- " porte l'observation d'une femme primipare, dont l'hymen fut déchiré " brusquement par la tête de l'infant. Nous avons vu nous-même, la " resistance de l'hymen, ou nous n'aperçumes qu'une tres petite ouver- " ture qui avait sans doute permis la fecondation. Nous incisâmes cette " membrane avec le bistouri, et la patiente mit au monde très peu de " temps après, deux jumeaux vivans et de grandeur ordinaire." *Capuron. P.* 2. *quest.* 1.

(*a*) In entering upon a disquisition on the tests of virginity, it is hardly necessary to enumerate the many absurd marks related by the more credulous, as indicative of recent defloration, such as, swelling of the neck, rings around the eyes, the colour of the skin and urine, &c. nor is it necessary to enter into a refutation of the story, credited by *Mahon*, of a monk at Prague who could tell a maid by the smell. We shall therefore proceed at once to consider the value of that test which most commonly passes among us as the least equivocal mark of virginity, viz. the presence of a peculiar membrane termed the *Hymen*.

The Hymen (so named from the Greek word ὑμην, a membrane) is formed by four angular duplicatures of the membrane of the vagina, the union of which may be discovered by corresponding lines on the hymen. At the upper part there is a semilunar vacancy, intended for the transmission of the menses, so that it assumes the form of a crescent: a circumstance which affords the true explanation of the origin and meaning of the symbol so characteristically assigned to *Diana*. (See *J. G. F. Tolberg*, *de varietate hymenum*. *Hal.* 1791, 4to.) In some rare cases, the hymen is an imperforate circular membrane, attached to the edge of the orifice of the vagina in every part, so as to close the canal completely, (we have already noticed this fact under the subject of Impotence, p. 207). The girls, in whom this fault of conformation

instances situated an inch or an inch and a half be-

existed, were called by the Greeks ἄἰρηλαὶ; the physicians who have written in Latin amongst us, have given them the name of *Imperforatæ*, *clausæ*, or *velatæ*; and the Italians that of *Coperchiate*. The Romans had no appropriate word to denote this malformation, and they were therefore obliged to express it by some circumlocution; it is thus that CICERO (*De Divinat: Lib.* II.) speaks of a dream, where a woman was seen, "*quæ obsignatam habebat naturam;*" and that PLINY (*Hist. Nat. Lib.* VII. *c.* 16) relates, *Cornelius*, the mother of the *Gracchi*, "*concreta genitali nata fuerat.*" In many cases the membrane appears never to have been formed; while in others, its extreme tenacity has occasioned its rupture and destruction in early life; it may, moreover, have been destroyed by disease, by noxious habits, or by acrimonious discharges. This extreme uncertainty has led many authors, of no inconsiderable eminence, to deny its existence, while others have acknowledged its occasional presence, but have attributed its formation to disease. GRAAF, PENIUS, BUFFON, DIONIS, declare that, by dissection of girls of all ages, they have never been able to discover it; on the other hand, the reality of this membrane has been maintained by BERENGER DE CORPI (*In Isagoge Anatomica*), VESALIUS (*De Corp. hum. fabric.* v. *c.* 15.) FALLOPIUS (*In Observat. Anatom.*) VOLCHERUS COITERUS (*In Tabul. Anatom.*) VAROLIUS (*Anatom. Lib.* iv. *c.* 4). RIOLANUS (*Anthropog. Lib.* 1, *c.* 16). BARTHOLIN (*Anat. Lib.* 1. *c.* 31). WEIRUS (*Observat. Lib* 1. *et de Lamiis Lib.* iii. *c* 20). SPIGELIUS (*De Hum. Corp. fabrica Lib.* viii. *c.* 18). DIEMERBROECK (*Anatom. Lib.* 1. *c.* 16). SWAMMERDAM (*De Uteri Mulieb. fabrici*). TECHMEYER (*Institut. Medicin. Legal et Forens. c.* iv.) and all the more learned and able anatomists of the sixteenth and seventeenth centuries. HEISTER (*Compend. Anatom.* and *Ephem. Nat. Curios. Cent.* viii. *Observ.* 69). FREDERIC RUYSCH (*Thes. Anatom.* iii. *No.* 15; vi. *No.* i; vii. *No.* 60.) MORGAGNI (*Adversaria Anatom.* i. 29—iv. 23.) and WINSLOW (*Exposit. Anatom. No.* 653), all describe this membrane, and assert that they have found it in every young girl they have had occasion to examine. ASTRUC (*On the diseases of Women, vol.* 1. *p.* 128), in referring to the above learned authorities, observes that, "the inference must necessarily be, that those who deny ever to have seen it, must either have examined only such girls as had lost their virginity; or, prepossessed with the false notion that the *hymen* must always close the entrance to the *vagina* entirely, they have mistaken it at the time it was before their eyes, and have even sometimes given the description of it, without mentioning the name." After this literary history of the question, we may very safely conclude, that the *Hymen* is a perfectly natural structure, occurring in the virgin, and that by sexual intercourse it is ruptured; after which it is shrivelled into several small

yond the Vagina;(*a*) and "Mr. Justice *Ashhurst*, who

excrescences at the orifice of the urethra, called the *Caruncule Myrtiformes*. But since it is liable to such variations in appearance, and to accidental rupture from the slightest causes, its absence can never be received as evidence of defloration; nor can its presence be considered as an unequivocal proof of virginity; for it has been asserted by indisputable authority, that it is not always ruptured *in Coitú*. Ruysch has said, that if the coitus take place immediately after the menstrual excretion, this membrane is often not ruptured, (*Observ. Anat. Chirurg.* xxii). And we have already alluded to cases, wherein the Hymen was actually entire at the time of delivery. (See p. 203, and note.)

Some authors have talked of the renewal of the hymen after its rupture; this we apprehend can never happen, although a spurious reparation of certain local consequences, incident to the loss of virginity, may certainly occur from the effects of adhesive inflammation.

Having thus disposed of the subject of Hymen, we next come to consider the state of the Vagina, as an indication of Virginity, upon which some authors have attached considerable weight, especially the Italian medico-jurist Tortosa. In a healthy virgin it ought certainly to be rigid and narrow, since the only function which it has to perform is that of giving transit to the menstrual flux: the parts may however become dilated, and their natural rugæ be obliterated from various innocent causes. Certain mal-practices will likewise occasion the same relaxation as sexual intercourse. Some authors have considered a rigidity of the *frenum labiorum*, at the inferior, or *posterior commissure* of the *pudenda*, as a proof, if not of virginity, of a rare indulgence in sexual intercourse. The Mosaic test of Virginity, the effusion of blood, however conclusive it might have been among the Jews, certainly cannot be received as unexceptionable in these Northern climates. The Jews, it would seem, placed so much reliance upon appearances, that the nuptial sheets were constantly viewed by the relations on both sides; and the maid's parents preserved them as a token of her virginity, to be produced in case her husband should ever reproach her upon that subject. In case the token of virginity was not found on them, she was to be stoned to death at her father's door. This evidence is still required by some of the tribes inhabiting the banks of the Indus.—*Pottinger's Travels, p.* 70. In some cases the effusion of blood during the first act of coition, is very considerable, and is liable to be confounded with the *Catamenia*; we have however already observed (p. 187, note) that the menstrual excretion does not, in its

(*a*) *Mahon* mentions an instance in which he found a membrane at a finger's breadth within the vagina, *Med. Leg.* tom. 1. p. 118.

tried the prisoner, left it to the jury whether any penetration were proved, for if there were any, however small, the rape was complete in law. The jury found him guilty, and he received judgment of death. But before the time of execution, the matter being much discussed, the learned judge reported the case to the other judges for their opinions, whether his direction were proper. And upon a conference, it was unanimously agreed by all assembled (in the absence of *De Grey*, C. J. and *Eyre* B.) that the direction of the judge were perfectly right. They held that in such cases, the least degree of penetration is sufficient, though it may not be attended with the deprivation of the marks of virginity. It was therefore properly left to the jury by the judge; and accordingly the prisoner was executed. This decision appears to be well warranted by physiological observation, for as it is evident from the concurrent testimony of the highest medical authorities, that penetration *in vaginam*, is not necessary to conception, *(vide ante, p.* 203.) it would be absurd to contend that more were necessary to constitute Rape in law, than Ge-

natural state coagulate; and yet this assertion requires some qualification; for it is well known, that when the discharge is superabundant and attended with great pain, it often comes away in coagula, in which case there is probably an admixture of common blood.

From what has been here related, we are bound to conclude, that there does not exist any anatomical sign, by which the virginity of a female can be unequivocally determined. By midwives and matrons however, the subject has been treated with less diffidence; in the statutes of the sworn matrons, or midwives of Paris, containing likewise divers formulæ of reports, and depositions made in court, upon their being called to visit girls that made their complaint of being deflowered, they laid down fourteen marks on which to form a judgment. *Laur. Joubart*, a celebrated physician of Montpellier, has transcribed three of these reports—one made to the Provost of Paris, another in Languedoc, and a third in Berne.

neration in nature (*a*) The utmost wrong to the one party, and the malignant intent of the other, have been complete; and the injury on the one hand, and malice on the other, are truer criteria for the administration of justice, than the dicta of lawyers, or the etymologies of schoolmen.

Lord *Coke*, (12 *Rep.* 37.) Sir *M. Hale* in his Summary, (*b*) and *Hawkins P. C.* say that there must be both *penetratio* and *emissio seminis*, and this appears to be the law of the present day, as decided by *Skynner*, C. B. *Gould*, *Willis*, *Ashhurst*, *Nares*, *Eyre*, and *Hotham*, against Lord *Loughborough*, *Buller*, and *Heath*, Lord *Mansfield*, though present, having given no opinion of his own; (a circumstance from which we might infer that he agreed with the minority). The argument is stated to have turned on the words *carnal knowledge*, to which the majority contended that *emissio seminis* was absolutely necessary; if therefore it be true that certain Eunuchs (*c*) have power of erection,

(*a*) "Qualis imperfectus tamen coitus, quo mentula vaginæ uterique "orificio quodammodo tantum applicatur, hoc sub illius affrictione "titillatur ipsique semen virile adspergitur, juxta diversorum Autorum "observationes Medicas, ad impregnationem Mulieris alicujus interdum "sufficit. Valentini Novella Medico legales," vol. 1. p. 33.

(*b*) But *contra* see *Hale P. C.* 628 & 3 *Inst.* 58.

(*c*) The period and manner of mutilation have considerable influence on the effects of the process. The complete removal of all the external organs is a much more decisive method of annihilating the propensities connected with them, than any partial amputation, or compression, or ligature of the spermatic cords—"Si soli testiculi abscissi fuerint, non "auferuntur desideria; imo sunt valde magna, in quibus peccare pos- "sunt ..... sed possunt deflorare quamcunque mulierem, nullam "tamen impregnare. 1. *Valent. Pand. p.* 136, vide etiam a p. 62, usque "ad 222. *De Conjugio Eunuchi.*"

The operation is also more effectual when performed in early infancy, than after the period of puberty; venereal desires have been known to subsist in considerable force, and with the usual external signs, even after the removal of the testes in the adult; thus JUVENAL, in satirising the vices of the Roman women, says—

"Sunt quas Eunuchi imbelles, ac mollia semper
"Oscula delectant,"——

and consequently of penetration, they may morally ravish without incurring the punishment of Rape; for it is certain that they can have no *emissio seminis*; (*a*) or a man may have perpetrated all the more atrocious parts of his crime, and yet being interrupted in the least voluntary constituent of it, (*Hill's* case) (*b*) escape the well-merited vengeance of the law; while it is evident on the other hand, that the innocent victim has suffered, in body, mind, and reputation, as much, as if the crime had been legally completed.

But admitting the fact of emission to be necessary to the constitution of this crime, it remains to enquire whether the proof of this fact must be specifically made out in evidence, or whether it shall be presumed. In *Matthew Cave's* case (*Oct.* 1747) Chief Justice *Willes* directed the prisoner to be acquitted for want of proof; but on the other hand, Mr. Justise *Foster*, *Clive*, J. (in *Blomfield's* case, A.D. 1758) *Bathurst*, J. and Baron *Smythe* (in *Sheridan's* case, 8 *Geo.* 3) and *Buller*, J. (in *Harmwood's* case, Winchester Spring assizes, A.D. 1787) held the contrary; the latter case is the more worthy of consideration, as it was subsequent to the decision in *Hill's* case, and tried by one of the judges present at the discussion: "He said, in giving judgment, that he recollected a case where a man had been indicted for a Rape, and the

(*a*) An important question here arises as to what shall be legally called *Semen*, for the secretion emitted is composed of parts, the smaller portion of which only possesses the generative faculty.

It appears from the experiments and observations of our most accurate physiologists, that the fluid expelled in copulation is furnished in a small proportion only by the Testes; that to this a peculiar secretion of the Vesiculæ Seminales is added, and that the chief bulk is made up of the Prostatic liquor, or secretion from the prostate gland; so that the fact of emission in Eunuchs is not extraordinary, although the discharged fluid cannot be said to be *Seminal*.

(*b*) *Aut. more alieno retrahat.*

woman had sworn that she did not perceive any thing come from him; but she had had many children, and was never in her life sensible of emission from a man: (*a*) and that was ruled not to invalidate the evidence which she gave of a Rape having been committed upon her." 1 *East. P. C.* 440.

A Rape may have been committed on a child too young, or rather too incompetent, to be sworn; yet all the circumstances except this, may be proved by other witnesses; the infant alone could prove *emissio in vaginam*, for no subsequent examination, however immediate, would demonstrate the fact; or when a woman has fainted from the violence committed on her, or has been dishonoured in her sleep, (*b*) and through the agency of soporific drugs, or has died before the trial, (*c*) or been murdered by her ravisher, or has been driven to suicide by mental distraction; in all these cases of increased atrocity, this mode of proof becomes impossible.

But emission, it is said, may be presumed from penetration, *Duffin's* case, *June*, 1821, (*d*) but this is not physiologically true in all cases, and as we have stated, that it may be prevented by accident or inter-

(*a*) We should indeed be inclined to question the veracity of a witness, who under circumstances of extreme pain, rage and terror, should pretend to any very great sensibility to minuter accidents.

(*b*) The Faculty of Leipsic decided "Dormientem in sella Virginem "insciam deflorari posse 1. *Valent. Pand. Med. Leg.* p. 31. vide etiam *ib.* "p. 33. De stupris in Somno à Fœminis admissis." In stating the above authorities we are not to be considered as implicitly confiding in their truth.

(*c*) Yet if she live long enough to make a deposition upon oath, it is admissible. Vide post *Fleming & Windham's* case.

(*d*) This belongs to a class of cases of which we shall take no other notice, than by referring the reader to the authorities. We do not believe that medical evidence can ever materially elucidate the fact, unless the crime be violent and accompanied by material bodily injury.

ruption, so also emission is said to be evidence of penetration; but this is still less reasonable; for it is obvious that it may easily occur in the mere attempt; yet if reliance can be placed on the authorities already quoted, (*a*) emission alone without any material penetration, but only by injection *inter labia*, will be sufficient to impregnate, and therefore ought in reason to be considered sufficient to constitute the crime of Rape.

When it has been clearly proved that coition has actually taken place between the parties charged(*b*), the next point to be determined is, whether the woman consented or not. It is not necessary that we should here enter into a detail of all the circumstances which may throw light on this question; but one extraordinary dictum of the more ancient lawyers is worthy of observation, though there is little fear that the error will ever be sanctioned by any tribunal; yet as it is one of the evils of this crime that an unmerited stigma too frequently attaches to the sufferer by it, we are the more anxious to expose the vulgar idea, from which some ignorant persons might still infer that a woman had consented, because she had proved pregnant. "It is said by Mr. *Dalton*, that if a woman at the time of the supposed Rape do conceive with child by the ravisher, this is no rape;

(*a*) In the celebrated case of *Mary Ashford*, the prisoner *Abraham Thornton*, admitted the carnal knowledge, adding that it was with her own consent, but the whole of the evidence repelled the latter assertion; the death of his unhappy victim (however caused) rendered it impossible to convict him of Rape.

(*b*) It is possible that a woman who has consented to her dishonor by one person, may on fear of discovery, or for some malignant motive, charge the crime on another; or as in the cases mentioned by *Capuron*, she may have produced external appearances of injury for the same nefarious purpose.

for (he says) a woman cannot conceive unless she doth consent. And this he hath from *Stamford* and *Britton*, and *Finch*. *Dalt. c.* 160. see also 2 *Inst.* 190.(*a*) But Mr. *Hawkins* (*P. C. c.* 41. *s.* 2), observes that this opinion seems very questionable: not only because the previous violence is in no way extenuated by such a subsequent consent; but also, because if it were necessary to shew that the woman did not conceive, (*b*) the offender could not be tried till such time as it might appear whether she did or not; and likewise because the philosophy of this notion may be very well doubted of. 1 *Hawk.* 108. And Lord *Hale* says this opinion in *Dalton* seems to be no law. 1 *H.H.* 131. (see also *Mss. Sum.* 334). That so absurd a notion as that conception evidenced consent, should in modern times have obtained amongst any whose education and intellect were superior to those of an old nurse is indeed surprising: at this day, however, facts and theory concur to prove that the assentation of nature in this respect, is no ways connected with violation of mind." *Burn's Just. tit.* Rape.

It is not necessary that the quantum of violence be extreme; it is sufficient that the offence is committed without consent; as where a woman is violated in her sleep, or during a fit, and query if she have been intoxicated for that special purpose, so that in truth she should have no rational power to consent or deny; or if the ravisher imposed himself in the night, on a married woman as her husband.

(*a*) *Farr* and *Faselius* incline to the same opinion. The Parliament of Thoulouse passed a decree upon this subject, deciding that a woman violated might nevertheless conceive; the physicians having on that occasion reported, "posse quidem voluntatem cogi, sed non naturam, "quæ semel irritata pensi voluptate fervescit, rationis et voluntatis "sensum amittens."

(*b*) Or if she be a married woman, how is it possible to fix the filiation?

If a woman be compelled by violence to marry, and carnal knowledge be had by force, it is a rape, 1 *Hale*, 629; but as there is another remedy by *statute* 3 *Hen.* 7. *c.* 2. for the forcible abduction, it is not necessary to enquire whether an indictment will lie, until the marriage be dissolved.

Nor will a subsequent marriage purge the offence: formerly "it was held for law, that the woman (by consent of the judge and her parents) might redeem the offender from the execution of his sentence, by accepting him for her husband, if he also was willing to agree to the exchange, but not otherwise." *Glanv. l.* 14. *c.* 6. *Bract. l.* 3. *c.* 28.; and this was reasonable while the prosecution was at the suit of the party by appeal, for as the king could not pardon, the power of remission might be properly left to the person injured; but that outrages might not be too readily compromised to the injury of public justice, the statue 6 *Rich.* 2 *st.* 1. *c.* 6. enacts, that the woman consenting, and the ravisher, be "disabled to challenge all inheritance, dower, or joint feoffment, after the death of their husbands and ancestors," and the husband, or if she have none, the father or next of blood shall have the appeal (*a*). But Rape having been made felony by *Stat. West.* 2. *c.* 34. and a new appeal given, the option of the woman is now taken away. It would have been unnecessary to have dwelt on this point if a vulgar error did not to this day prevail among the lower orders, that the punishment of Rape might be escaped by the connivance of the nominal prosecutrix, even after judgement.

"The party grieved is so much considered as a

(*a*) Sir *W. Blackstone* does not appear to have adverted to this statute. 4 *Comm.* 3[illegible]. See *Jac. L.D.* by *Tomlins*, *tit.* Rape.

witness of necessity in this, as in other personal injuries, that in Lord *Castlehaven's* case, who assisted (*a*) another man in ravishing his own wife, she was admitted as a witness against him. The same testimony was received in Lord *Audley's* case (*b*), 1 *East. P.C.* 444. 1 *Hall*, 629: 1 *St.* Tri. 387. 1 *Stra.* 633. *Hutt.* 116. (*c*)

And if the party be dead "*the deposition* of the girl taken before the committing magistrate and *signed by him*, may after her death, be read (*d*) in evidence at the trial of the prisoner, although it was not *signed by her*, and she was under twelve years of age; provided she was sworn, and appeared competent to take *an oath*, and all the facts necessary to complete the crime may be collected from the testimony so given in evidence." *The King against Fleming and Windham*, A.D. 1779. *Leach's C.L. p.* 996. But if the declaration be made *in articulo mortis*, the party knowing herself to be dying, then it is not necessary that she be sworn, for the solemnity of the occasion is more than equivalent to the form of an oath, yet it is necessary that the party should have so much sense and discretion, that, if in sound health, she might have been sworn; for if she have not, then even the fear of death and judgment may not have a sufficient impression on her mind. The melan-

(*a*) All persons, whether men or women, aiding in the perpetration of a Rape, are guilty of felony. Lord *Baltimore's* case, 2 *Burr.* 2179.

(*b*) It is somewhat singular that several eminent writers should have fallen into the error of citing Lord *Castlehaven's* and Lord *Audley's* as distinct cases; *Mervin Touchet* was Earl of *Castlehaven* in Ireland, and Baron *Audley* in England.

(*c*) For the opinion of the Judges on the question of penetration, arising out of this case, see *Hutt. R.* 115.

(*d*) The doubt in this case arose on the construction of the Statute 2 & 3 *Ph. & M. c.* 10. See also *Lambe's* case, 2 *Leach's C.L.* 626.

choly case of *Coleman* will impress every reader with the importance of carefully noticing the circumstances of dying declarations, lest, by receiving as evidence the ravings of delirium, or at least the imperfect impression of impaired faculties, the innocent should be sacrificed to the errors of the dying; and this is the more necessary in those cases where the atrocity of the crime committed creates an immediate prejudice against every party charged or suspected.

END OF VOL. I.

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