

**An essay on magnesia alba. Wherein its history is attempted, its virtues pointed out, and the use of it recommended / [Samuel Glass].**

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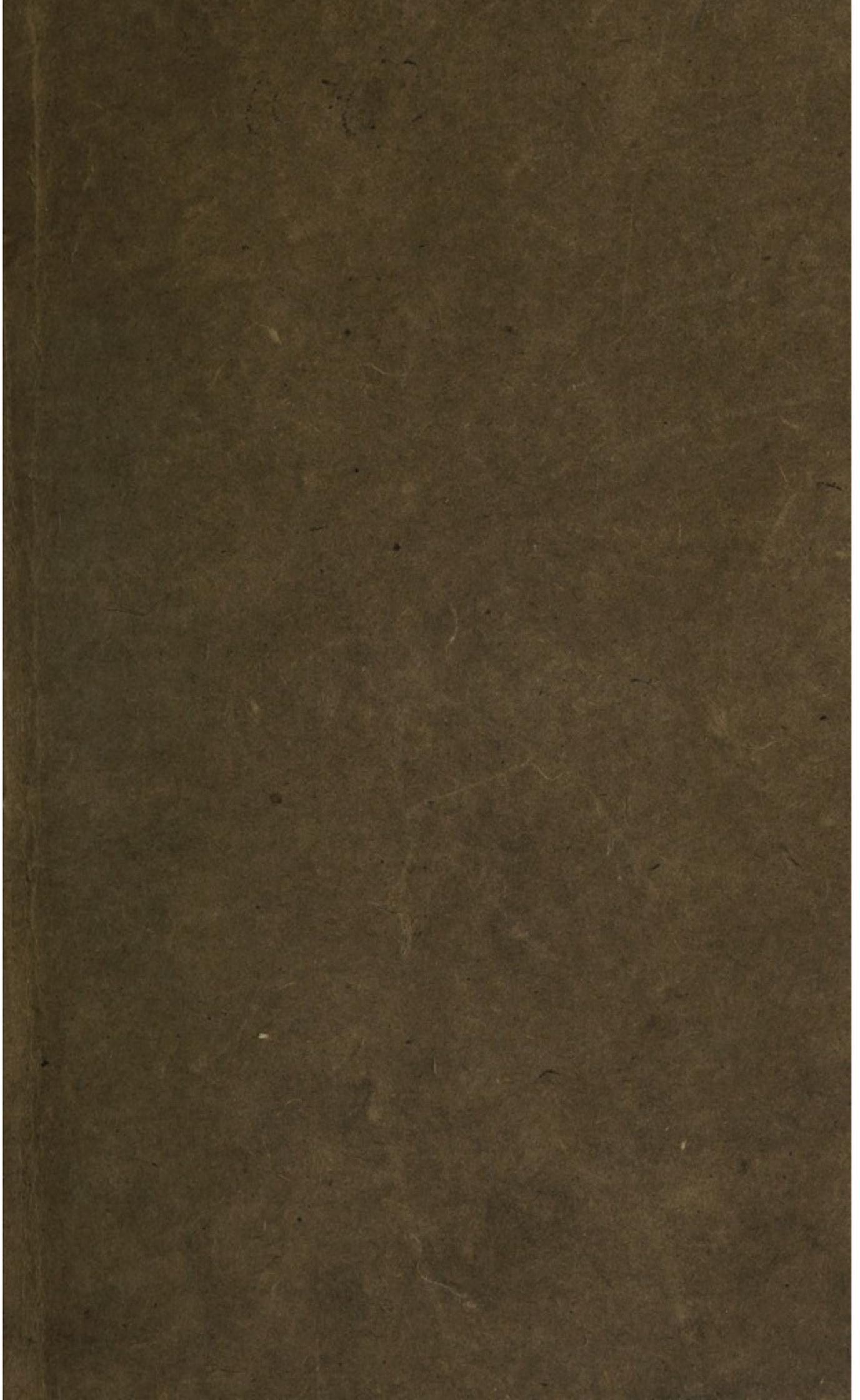
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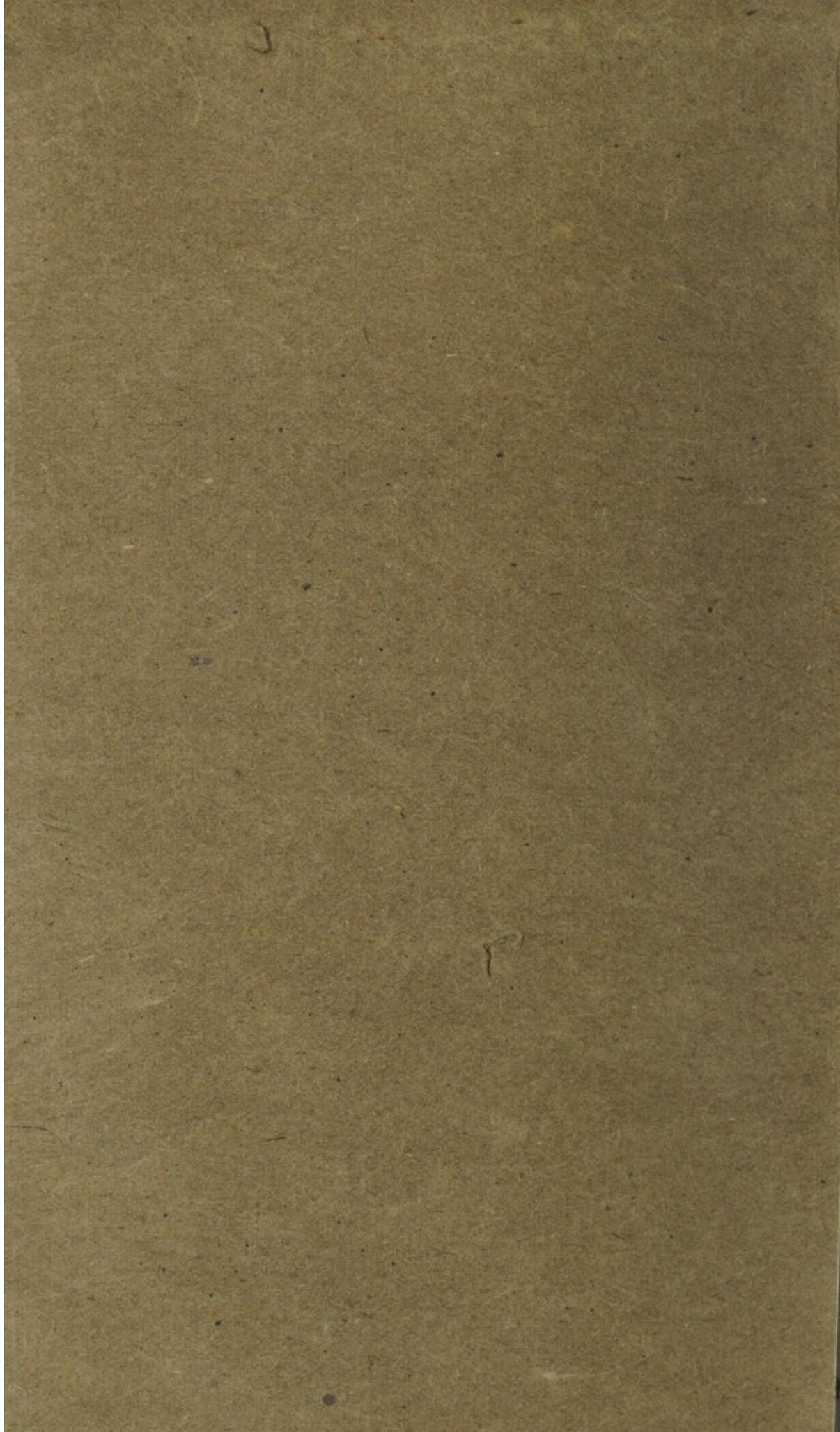
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A N  
E S S A Y  
O N  
MAGNESIA ALBA.

W H E R E I N

Its HISTORY is attempted,  
Its VIRTUES pointed out,  
A N D  
The U S E of it recommended.

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By S A M U E L G L A S S,  
SURGEON, in OXFORD.

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*Qui simplicibus curare potest, compositis non indiget.*

Medicus Euporistus.

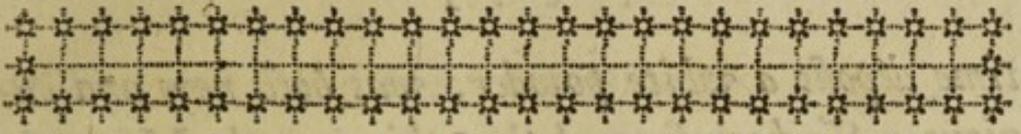
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O X F O R D,

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# INTRODUCTION.

*A*S nothing, that I know of, has hitherto appeared in the English language on the subject of Magnesia Alba, except a few Observations and Experiments, which are connected with other subjects in physic, and seldom fall in the way of any but the Faculty, I was led to think that a plain narrative of the nature and uses of it might not be unacceptable to the Public. But this is a task I should by no means have taken upon myself, were it not that the sale I am engaged in, and the frequent demands for this medicine, make it in some measure incumbent on me to satisfy the numerous enquiries of those who purchase it.

The first insight I had into the process for preparing Magnesia I owe entirely to my brother \*, which he communicated to me as a matter of mere speculation and amusement. To see two equally pellucid liquors, upon mixing them together, form a white coagulum; to see this immediately dissolve upon pouring on it some boiling water, and the milky liquor in a short

\* Dr. Glas of Exeter.

time deposit a white powder, was both new and curious. To be informed that this was the Magnesia Alba mentioned in a pamphlet, just then published, on the nursing and management of children; to hear that this powder was not generally known to the Faculty in England, but would prove a valuable acquisition to the Materia Medica, and be of great service in practice, was instructive and entertaining. And here perhaps the matter might have rested, had not the utility of the medicine been mentioned, and its use recommended, to that judicious and indefatigable Physician, the late Doctor Pitt of Oxford; who being desirous of trying its efficacy as soon as proper cases occurred (which he could not long wait for in his extensive practice) prevailed on me to prepare a little for him, by the process that had been communicated to me, as none was at that time to be had from the shops. The success which attended the use of it far exceeded his expectations; insomuch that he pronounced it a valuable medicine, if upon this account only, that it would precisely determine whether the offending acrimony in chronical complaints was or was not acescent. But the truth is, he found it serviceable in a variety of cases, and became fond of the medicine; so that the few ounces I had first supplied him with were soon expended, and a second quantity prepared for him at his request. But as  
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*the process was both tedious and troublesome, and the shops were by this time said to be furnished with it, I desired to be excused from preparing it for the future. It was not long, however, before he renewed his application, and observed, that the powders sold under the name of Magnesia were, both in their appearances and effects, very different from each other, and from that which I had prepared. The solicitations of my friend were too earnest and too reasonable to be withstood. That he might rely therefore on the due preparation of the medicine, and do justice to his patients, he advised those, in whose cases he thought the powder would be serviceable, to send for it to my house. And as the patients, in those instances, were some noble Personages in this county, the salutary effects they experienced from the use of it, could not fail of introducing it into other families of distinction; by which means the character of the medicine became every day more known, and the sale gradually extended.*

*It would be ungenerous however not to acknowledge my obligations to many other Physicians, and particularly to several in this place; whose recommendations of the powder, and the preference they have given to my preparation, cannot but have conduced to the increase of the demand for it and the bringing it into general repute.*

*Nor*

Nor ought I to omit mentioning the sense I have of the high honour conferred on me by the Right Honourable Lady Charlotte Finch\*, by an order for Magnesia, for the ROYAL INFANT HIS HIGHNESS THE PRINCE OF WALES, as also by the honourable mention since made by her Ladyship, personally to me, of the good effects which have resulted from its use.

To support the character it has acquired, and in some measure to do justice to a medicine of real and intrinsic merit, is the design of the following Essay; which, 'tis hoped will be found sufficient to acquaint the reader with the nature and qualities of this powder, and assist him to distinguish between that which is duly prepared and what is not so; between the genuine and sophisticated Magnesia.

\* Governess to the Prince of Wales.



A N  
E S S A Y  
O N  
M A G N E S I A   A L B A .

**I**T is no new observation that many of the most valuable discoveries in nature have been the result of chance, rather than of reason and reflection. Enquiries in themselves whimsical and chimerical have sometimes given birth to things of real utility in life; and while the Philosopher has met with a disappointment as to the main end of his pursuit, his researches have accidentally terminated in something of common benefit to Society. Such at least appears to have been the case with regard to the subject of the following pages.

It was a prevailing opinion among the Chemists of the last century, and by no means discarded in the beginning of the present, that

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the *Alcabeſt* of *Paracelſus*, or Universal Menſtrum, did really exiſt in nature. And as this, they imagined, “ \* would perfectly root every  
 “ diſtemper out of the human body, reſtore  
 “ health, and prolong life to a great ſeries of  
 “ years without being impaired by any diſ-  
 “ eaſes,” it is no wonder that neither time, pains, nor expence were ſpared to find out this valuable ſecret, which *Paracelſus* was ſaid to have poſſeſſed. Accordingly, while theſe notions prevailed, there was ſcarce a Laboratory in Europe that was not employed in ſearch of it, ſcarce a body but was tortured on ſuſpicion of containing it.

Among others whoſe ſtudies were directed to this end, was *Siboldus*, Phyſician to the Biſhop of Magdeburgh; who together with *Helwigius*, no inconfiderable Chemiſt, made choice of the principles of Nitre for the ſubject of their joint experiments. They procured, as *Hoffman* § informs us on the authority of *Katſchius*, himſelf a Phyſician and Amanuenſis to *Siboldus*, a compoſt of ſuch earths as are uſed in making artificial Nitre, and expoſed it for a conſiderable time to the Sun and Air; after which they proceeded to ſeparate what, they imagined, their compoſition had attracted; and for this purpoſe had recourſe to the uſual methods of Diſtillation and Solution.

\* *Boerhaave's Elements of Chemistry by Dallowe*, p. 12.

§ *Obſervat. Phyſ. Chem. Lib. 2. Obſ. 2. p. 106.*

That

That part of the composition which was immediately distilled, yielded a volatile urinous spirit. — The Lixivium produced by the solution of the other part, was first boiled, and afterwards distilled. During the distillation, an acid spirit arose in red fumes, and upon the application of a stronger fire, there was left in the bottom of the Retort a *caput mortuum*, of an exceeding white colour, very light and insipid, which they called *Magnesia Nitri* †.

It is not improbable that the same kind of earth might have been obtained by other Chemists, who were engaged in the same pursuits with *Siboldus* and *Helwigius*; at least there are others who may be thought to have some claim to the discovery. The honour has been attributed to *Van Helmont* in particular\*, on account of a process he has given us for converting Nitre into a white insipid earth. But whoever will give himself the trouble of examining his § process,

† It was usual with the Alchemists of former times to give the name of *Magnesia* to such substances, as they conceived to have the power of attracting any particular principle from the air. Thus an earth, which from being exposed to the air increased in weight and yielded Vitriol, they called *Magnesia Vitriolata*, and salts which attracted moisture from the same Element, *Salia Magnetica*. Misc. Cur. p. 118. 133. Anno 5. Hence these later Chemists, observing in the course of their process, that a nitrous acid was separated, and an earth left behind, might, on a supposition that this earth had been the attractive of that acid, call it *Magnesia Nitri*; which from its colour soon obtained the name of *Magnesia Alba*.

\* *Zuingerius* de Panacea solutiva, Diff. 5.

§ See the process in *Hoffman's* Clavis Pharmac. *Schrod.* p. 312.

will, I believe, be convinced that the powder he mentions is different from that we are at present considering. Be that as it will, to whomsoever we are indebted for the discovery, it does not appear that they were acquainted, at least not immediately, with its medical virtues, and perhaps disregarded it at first as foreign to the main end they might have in view. How long its virtues lay concealed, or by whom they were discovered, it is not easy, perhaps impossible, to determine. Certain it is that *Rome* was the place where *Magnesia* first got into reputation as a Medicine; and the Jesuits, who were masters of the secret, and, we are told, made great advantages of it, knew too well their interest to acknowledge, that what by the original discoverers was disesteemed as a mere *caput mortuum*, was the very thing, which in their hands was so valuable and efficacious. The novelty of the medicine, as well as the character it had acquired, could not fail of engaging the attention of the Faculty. At length an eminent Physician †, by some means or other, fished out the secret from an Italian Monk §, and candidly imparted

† *Kofferlin*, Physician in ordinary to his highness the Prince and Abbot of Kempten in Germany.

§ This Monk was famous for preparing the powder, and is mentioned too as another of the discoverers by *Zuingerius*, who informs us, that he was a Minor Canon of St. Laurentio at *Rome*, and by birth a Dutchman. Perhaps he was the same person with the Roman Priest mentioned by *Johannes Philippus* ab Hertodt in this view; neither of their names, however, are recorded.

it to another of the Profession, who conveyed the knowledge of it into *Switzerland*. From whence it became more general, and was distinguished by various names, given it for reasons which the names themselves do, most of them, sufficiently point out †.

It is no uncommon case for medicines, extolled as *Panaceas* when in private hands, to sink greatly, and deservedly too, in their character, as soon as the preparation no longer remains a secret. But this has by no means been the fate of *Magnesia*. Not long after it became public, but long enough for it to have undergone sufficient trials, it obtained the approbation of the most eminent of the Faculty. A Professor § of Anatomy and Botany at *Basil*, in the year 1710, mentions it in no cursory manner, having given us in his fifth medical dissertation a description of its process, and a high encomium on its virtues. The year after, it made one in the collection of medicines published by the Physician || to the Emperor *Leopold* I. under the title of *Medicus Euporistus*; and was taken notice of in 1717 by *Lancisi* the Pope's Physician ‡. But as these are, all of

† Il Polvere del Conte di Palma, Panacea solutiva, Panacea universalis, Magisterium Nitri, Pulvis præcipitans nitrosus, Polvere del Chiaramonte, Panacea Antihypochondriaca and Panacea Anglicana from its use in, what foreigners call the English malady, *the Hip*.

§ *Theodorus Zuingerius*.

|| *Johannes Philippus* ab Hertodt.

‡ Annotat. in *Mercati* Metallotheç. Vatican Arm. ii. cap. 10. p. 50.

them, Authors not easily to be met with, and it may be some satisfaction to the curious to see in what manner *Magnesia* was originally prepared, I shall insert the process as described by *Lancisi*; which, at the same time that it is the most intelligible, differs not materially from that of the others, except in a few directions at the conclusion of it, which appear to be his own.—

“ † Many useful medicines, says he, have by the  
 “ help of Chemistry been prepared from Nitre;  
 “ but none more elegant or useful than that  
 “ which has appeared in our time under the  
 “ name of *Magnesia Alba*. And as no author,  
 “ that I know of, has hitherto clearly described  
 “ the process for making it, I think it not amiss  
 “ to give an accurate description of the best me-  
 “ thod used here at *Rome* for preparing it—Take  
 “ any quantity of the Brine that is left after  
 “ making artificial Nitre, and evaporate it slow-  
 “ ly with a gentle heat in an earthen vessel, till  
 “ the moisture is exhaled, and the mass reduced  
 “ to a sandy kind of Earth. Let this Earth be

† Multæ ex nitro a Chemicis utiles medicinæ parantur nimirum nitro depuratum, &c. Præ cæteris autem admodum elegans, atque utile remedium ex nitro nostra ætate parari cæpit, quod *Magnesiam Albam* vulgò appellant. Cujus conficiendi modus, cum adhuc (quod sciamus) ex auctorum editorum scriptis clarè non innotuerit; nos operæ pretium facturos existimavimus, si optimam rationem, quâ Romæ confici solet, accuratè describeremus sequenti modo: Accipe residuum lixivii ex quo nitrum extractum sit, evaporetur sensim in vase figulino, lento calore, donec omnis humor evanescat atque ad terram sabulosam redigatur. Quæ terra exinde vehementi admo-  
 veatur

“ then placed over a strong fire, and be conti-  
 “ nually stirred with a stick and well mixed to-  
 “ gether, till the fetid sulphur is dissipated,  
 “ and the mass equally and thoroughly calcined.  
 “ This *calx* is to be well washed in hot water,  
 “ the water poured off by gently sloping the  
 “ vessel, and the ablution to be repeated eight or  
 “ ten times: By this means the noxious salino-  
 “ sulphureous particles will be separated and  
 “ carried off, the mass rendered pure from  
 “ any heterogeneous matter, and will subside to  
 “ the bottom of the vessel in form of a white  
 “ powder; which is to be well dried in the sun  
 “ or by means of a sand heat, and then kept  
 “ in a Crucible, for at least three hours, in what  
 “ is called a Reverberatory fire, till it is reduced  
 “ to a fine white flour. Let this powder be well  
 “ levigated upon a marble slab, passed through  
 “ a fine sieve, and afterwards kept in a glass  
 “ phial well stopped and in a dry place.—This  
 “ powder is the *Magnesia Alba*, which is endued

veatur igni, ac interim rude ferulaceâ assiduè agitetur, ac probè  
 misceatur, donec sulphure fætido penitus exhalato in calcem æqua-  
 biliter ac probè facessat, quo factò calx prædicta aquâ calidâ probè  
 diluatur atque aquâ inclinato vase effusâ, octies aut decies novâ  
 aquâ, ut dictum est, abluatur; quo fit, ut noxiis particulis salino-  
 sulphureis in aqua depositis, purior ac defæcator evadat, ac pul-  
 veris albi formâ in vasis fundo subsidat; qui Solis calore, vel va-  
 porarii probè exiccatus, ac in ollam testaceam inditus igne, ut aiunt,  
 reverberii incalescat, saltem tribus horis, donec in pollinem albissi-  
 mum ac tenuissimum abeat. Denique pulvis iste molâ marmoreâ  
 optimè attritus, per arctissimum subcerniculum excutiatur, ac in  
 phiala vitrea benè clausa, loco sicco asservetur.-----Pulvis iste,

Magnesia

“ with an extraordinary absterfive, a gently pur-  
 “ gative and abforbent quality, allays heat, and  
 “ powerfully corrects acidities ”

In a few years after, it was treated of by an eminent *French* Chemist \*, who more than intimates that the medicine was discovered fooner, by at least ten years, than is generally supposed. His account indeed is in this respect far from being fatisfactory: To him however we are obliged for mentioning (and he is the first author I have met with who mentions) but not as a difcovery of his own, the method of separating this earth from the Mother-Lye of Nitre, by a folution of a fixed alkaline falt.

It was not long, before the fubject was honoured with the notice of the Celebrated † *Hoffman*, which he has confidered in every view with his ufual accuracy and judgment. Among other things he obferves, that there are found in the Refiduum after the chriftallization of rough Nitre, the fame principles as thofe from which *Magnesia* was firft accidentally procured; with the addition however of quick-lime and wood-afhes; ingredients abfolutely neceffary to the for-

*Magnesia Alba* dictus, eximiâ vi pollet abfterfivâ, leniter purganti, abforbenti, ac temperanti, acidumque potenter abforbet.

\* See a memoir by Mr. *Boulduc* among thofe of the Academy of Sciences for the year 1720.

† See his difertation published in 1722, entitled *Animadverfiones & Experimenta circa Magnesium Albam, tutum et gratum infipidum pulverem laxantem.* *Obf. Ph. Che.* p. 105.

mation

mation of nitrous chrystals. From the similitude observable between the *nitrous Residuum* and that of *sea-salt*, commonly called Bittern, he was led to imagine that an earth might be obtained from the latter, very little, if at all, different from that which had been procured from the former: the experiments he made soon verified his conjectures; and a method was happily substituted of obtaining the powder, in the greatest purity, and as subtil as art can make it, without having recourse to the tedious method of Calcination originally in use, or that second Calcination and the subsequent management, which make the latter part of *Lancisi's* process.

The publication of this tract by so eminent a Physician as *Hoffman*, was sufficient, one would imagine, to have established the character, and recommended the use, of the *Magnesia Alba*. But notwithstanding this, and the reputation it had acquired abroad, it was but little known in *England* till the year 1748, when it was first publicly recommended by Dr. *Cadogan*†. Some time after this, it got a place in the *Edinburgh Dispensatory* (as it had before done in some foreign ones) and has been since admitted into the last edition of *Quincy's*, and into the *Materia Medica* of the ingenious Dr. *Lewis*.

† See an Essay on the Nursing and Management of Children, in a letter to one of the Governors of the Foundling Hospital.

The strenuous recommendation of this powder, in the Essay just referred to, soon engaged the attention of the Public. But the method of preparing it being at that time not extant in any of our dispensatories, and the works of those Chemical authors who had described it, not common in *England*, the wholesale dealers in medicine had no other way of satisfying the repeated demands for it, but by substituting in its place such other powders, as they imagined would best answer the description given of it, and be most likely to produce the intended effects; so that a variety of powders, very different from *Magnesia* and each other, were vended under that name. For tho' the process for preparing it with the Mother-Lye of *nitre* and that of *sea-salt*, ingredients at that time made use of, was soon known, yet these were not easily to be procured: And after this difficulty was removed by a Physician well skilled in chemistry, who substituted the *sal catharticum amarum* in the place of them, very few have been willing to bestow on the process the necessary care and trouble, insomuch that the powder even at this day is rarely to be met with in its pure and genuine state.

While the medicine thus suffered in its character with some, as well from the use of sophisticated powders, as from those which were improperly prepared, others were prejudiced against it, as an innovation on their favourite prescription

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tion for children, Rhubarb and the Testaceous Powders; and others again, considering it as a mere *calx* or *caput mortuum*, decried it as altogether useless and insignificant. Under these disadvantages, it is no wonder that a medicine, so lately introduced into our practice, should not immediately gain the credit it deserved. But those who have been so fortunate as to meet with it properly and carefully prepared, are fully convinced of its utility; and nothing seems to be wanting, but a fair trial of the medicine, genuine and unsophisticated, to bring it into universal esteem.

To enable the reader in some measure to form a judgment of its purity, it may not be improper to acquaint him, that when duly prepared, it is exceedingly light and white, of a very fine texture, smooth to the touch, without smell, and tasteless. Whereas the ordinary powders have very contrary qualities. For tho' they may seem light in comparison of other bodies that are most familiar to us, they are, bulk for bulk, much more ponderous than the genuine *Magnesia*, on account of the salts left in them; which are easily perceived by their warmth on the tongue, and render such powders rough, and, unless art has been used, gritty to the touch. It is true indeed, that even the purest *Magnesia* may appear, to some persons, not perfectly insipid. But as this is a circumstance not owing to any

defect in the medicine, but entirely dependent on the *saliva*, which is different in different habits, it may easily be obviated by first washing out the mouth.

The *Magnesia Alba* is a soluble earth, which has not yet been found naturally in a separate state, but always united with an acid, and in a *fluid form*: It is now most commonly prepared from the factitious *Epsom salts*; and may be obtained in great purity from them, as also from the medicinal purging waters, such as those of *Epsom*, *Cheltenham*, *Scarborough* \* and the like; and is indeed the Earth or *basis* as well of the factitious salts, as of those with which such waters are impregnated. The most compendious method of separating this earth is by adding to a filtered solution of the salts, or to the purging waters, a filtered solution of a fixt alkaline salt; by which means, and by diluting the mixture with hot water, and well stirring it, the earth is separated, and precipitates to the bottom of the vessel in form of a white powder; which is afterwards to be washed, till it is entirely freed from the salts and becomes perfectly insipid, and then dried for use.

But this process, easy as it may appear in theory, is however of a very capricious and

\* Scarborough water, tho' it contains a chalybeate principle, loses it if transported to any distance from the fountain, and becomes a mere cathartic and absorbent. *Rutty on Mineral Waters*, p. 110.

uncertain

uncertain nature. At one time solutions of these salts shall yield a powder very subtil and extremely light; at another, when the process has been repeated with a variation scarce distinguishable, but by a person long and well conversant with it, the result has been a powder indeed, but very ponderous, rough, and gritty; while at other times a substance has been produced, not inferior in hardness and closeness of texture to a stone. Such may be the different productions from the same ingredients: and though in the hands of the Chemists the two last may in some measure be made to put on the appearance of the former, they can never be administered with equal safety\*: for tho' the ponderous, rough, and gritty powder may be rendered fine by Trituration, it will not by that means be deprived of the saline *spiculæ*, so intimately blended in the composition: which, by reason of their highly acrid nature, will sometimes create vomiting, thirst, pain, inflammation, tenesmus, hæmorrhoids; and when the use of such unduly prepared powders has been long continued, they have been known to bring on a bloody flux.

\* Pulvis a matrice nitraria peculiari encheirefi præparatus est, ut qui hunc nescit, vel non probè observat, scopum certè suum minimè attingat, et Panaceæ nostræ loco, nescio qualem pulverem emeticum, aut inertem, grossum, flavescens, aliumve adipiscatur: Usque adeo singularis, operosus, atque difficilis est illius elaborandi modus. *Zuingerius* de Panacea solutiva Dissertat. Med. 5.

And

And with regard to the more compact and hard Concrete, tho' divisible by art into very minute corpuscles, it is not thereby divested of the cause of its contexture, but may nevertheless, by uniting with the viscid juices, and assisted by the heat of the stomach, at least where no acid abounds, form the same hard substance as at first, and incrustating about the lower orifice of the stomach, at length partially obstruct, or entirely stop, the passage. Effects, which are known to have been produced by the too liberal use of the finely levigated testaceous powders †.

But bad as these consequences are, they are not to be apprehended from the use of the pure *Magnesia*; which being freed from all heterogeneous particles, is without doubt a valuable medicine, and perhaps one of the greatest discoveries in physic which the present age has to boast of. In whatever light we consider it, whether as a *Pure Earth* obtained by the process with water, or as a *caput mortuum* left after Calcination, if it meets with no acid to remove, it produces no ill effects, nor creates a disorder where it finds none. Taken as an Absorbent, it is more powerful and efficacious in destroying acidities than any medicine of the same class, and has, besides, this peculiar advantage, that

† Hæc omnia, says *De Gorter* speaking of the testaceous powders, extingunt quidem acidum, sed si viscidum adsit, in lapideam molem sæpe concresecunt. *J. De Gorter Comp. Medicin. p. 159.*

it becomes purgative by the same causes which render the others restringent. And if considered merely as a Purging Medicine, and such it may at all times be rendered, it has this singular recommendation, which no other purgative can pretend to, that it has neither smell nor taste. With regard to its effects, it is mild and gentle in its operation, creates no sickness or gripes, requires neither regimen nor confinement, rather raises than depresses the spirits after purging, and leaves the body free from restriction; the contrary of which are the usual concomitants of other purges.

But the utility of *Magnesia* is by no means confined to removing disorders of the *Primæ Viæ*, as an Absorbent or Purging Medicine, but taken in small doses, as an Alterative, it passes into the habit, and becomes aperient and deobstruent; and assisted by proper diluents, its action may be determined either to the Skin or the Kidnies\*. Hence arises its usefulness in many Chronic diseases.

This medicine however is not to be looked on as a *Catholicon*, nor will it agree with every constitution. Persons afflicted with bilious dis-

\* Neque enim tantùm absorbentem & catharticum, si acidum prima in regione stabulatur, virtutem exerit, verum etiam, si in remissiore dosi ad grana xv vel xx usurpatur, diaphoreticum et diureticum effectum sequi non semel observavimus. *Hoffman*, *Obser. Phys. Chem.* p. 111.

orders, acute fevers, or malignant diseases, should refrain from the use of it; as should those also, whose humours abound with highly acrid and caustic salts. For these salts, which are probably the cause of the first mentioned disorders, as well as of several chronical complaints, are of a nature opposite to that *acid* acrimony which this powder is adapted to correct; no advantage therefore can, in those cases, rationally be expected from the use of it.

To distinguish the disorders which arise from different kinds of acrimony, and consequently to ascertain in what cases *Magnesia* will be proper, is indeed the peculiar province of the Physician; whose opinion I would by no means think of precluding. But the truth is, the medicine itself will in some measure determine the propriety of its use; and a single dose of it, which cannot be prejudicial in any disorder, will shew whether the case be such as it is calculated to relieve. If it purges, taken in a due quantity, and on an empty stomach, 'tis an infallible sign that an Acid exists in the first passages, and no small presumption that the continuance of it will be of service. But if no sensible effects do, under these circumstances, attend it, there is one advantage, however, resulting from the experiment: for a discovery will be made that the complaint arises not from *acid* acrimony, and that recourse

course therefore must be had to remedies of a different class.

It is an observation founded on experience, that near one half of our Species expire within a few years after their entrance into life. A Phænomenon, which the endeavours of the Faculty have laudably been exerted to account for and remove. Near a century ago, an ingenious *English* Physician\* maintained, what before indeed had been advanced, that the various disorders to which Children are liable, proceed from a redundancy of Acid, and the whole art of relieving those tender constitutions from their excruciating complaints, he would have entirely to consist in correcting and evacuating the Acid which occasions them. To answer these intentions, he had recourse to the Testaceous Powders and lenient Purgatives; among which he gives the preference to Rhubarb. And as his doctrine with respect to the rise of their complaints has met with an almost universal reception, so his practice, with very little variation, hath as generally been pursued.

But Rhubarb and the Testaceous Powders, however successfully they have been administered, (and it must be owned very good success has attended the use of them) yet experience leads

\* *Harris de Morbis Infantum.*

us to believe, that even these are not without their inconveniencies. Not to mention the difficulty of getting some children to take Rhubarb, which they frequently nauseate and throw up again, it is exceedingly griping, and leaves the body costive after purging. And with respect to the other part of the composition, 'tis observed, that the Testaceous Powders and Absorbent Earths of every denomination, *Magnesia* only excepted, when they meet with the milder acids, become restraining \* ; which effect, in conjunction with that arising from the Rhubarb, often proves highly detrimental to so tender a state as that of infancy. And what is still worse, their tendency to concrete, as before was observed, has sometimes been attended with fatal consequences. On these accounts, should a medicine be discovered equally efficacious as the Testaceous Powders in destroying acidities, and as mild and gentle in its purgative quality as Rhubarb, free from every inconvenience attending both the one and the other, would not this be a valuable acquisition, and deservedly claim the preference to the remedies usually administered? Such a discovery is *Magnesia* ; whose insipidness renders it offensive neither to the palate nor the stomach ; whose absorbency efficaciously corrects acidities ; and whose purging

\* See *Lewis's Materia Medica*, p. 357, 556.

quality is always in proportion to the peccant humours; which it carries off, without griping or uneasiness, leaving no degree of astringency, like the Rhubarb, nor forming any kind of concretions, like the Testaceous Powders.

In Dr. Cadogan's Essay \* there is a passage to this purpose well worth the attention of the reader; which will serve to convince him, that the preference I would claim for *Magnesia* to the medicines usually administered in the disorders of Infants, is no more than it is fairly entitled to, in the opinion of one whose interest could no ways be concerned in recommending it. "As the first and general cause," says he, "of most of the diseases infants are liable to, is the acid corruption of their food, it may not be amiss just to mention an easy and certain remedy, or rather preventive if given timely, at the first appearance of predominating Acid, which is very obvious from the green stools, gripes, and purgings occasioned by it. The common method, when these symptoms appear, is to give the Pearl Julep, Crabs Eyes, and the Testaceous Powders; which, tho' they do absorb the Acidities, have this inconvenience in their effect, that they are apt to lodge in the body and bring on a costiveness, very detrimental to infants, and

\* Page 32, 33.

“ therefore require a little Manna, or some  
 “ gentle purge to be given frequently to carry  
 “ them off. Instead of these I would recom-  
 “ mend a certain fine insipid powder, called  
 “ *Magnesia Alba*, which at the same time that it  
 “ corrects and sweetens all fournesses, rather  
 “ more effectually than the Testaceous Powders,  
 “ is likewise a lenient Purgative and keeps the  
 “ body gently open. This is the only *alkaline*  
 “ purge I know of, and which our Dispensato-  
 “ ries have long wanted. I could wish it were  
 “ more universally received among us, and think  
 “ it well deserves the rank in our books of  
 “ Pharmacy, which it already has in some fo-  
 “ reign ones. I have taken it myself, and gi-  
 “ ven it to others for the heart-burn, and find  
 “ it to be the best and most effectual remedy  
 “ for that complaint. It may be given to chil-  
 “ dren, a little at a time, in all their food, till  
 “ the Acidities be quite overcome, and the con-  
 “ comitant symptoms disappear entirely. I have  
 “ often given it with good and great effect,  
 “ even when the children have been far gone  
 “ in diseases first brought on by prevailing  
 “ Acid.” To this let me subjoin, that the pro-  
 priety of the above intimation of administering  
 the powder to infants as a Preventive as well  
 as a Remedy, is sufficiently confirmed by sub-  
 sequent experience. Very salutary consequences  
 have in this view attended the use of it, and the  
 children

children of several families which I could mention, were I inclined to insert cases, have been by this means exempt from the diseases so common in that period of life, and have arrived to a state of puerility with health and vigour.

The notion of giving Preventives, I am well aware, has been sometimes ridiculed. In the case of Infants, however, and young Children, it has certainly reason on its side. The aliments these are fed with, have a natural tendency to turn sour, and this not easily to be overcome by their digestive faculties, as yet weak and imperfect. Common sense therefore seems to dictate, that this disposition of their food should by some means or other be counteracted, and those diseases (various as they are in their appearance) be prevented, which are almost always the certain consequences of a redundant Acid. Such an intention as this must be acknowledged highly rational in Theory, and will be answered by no medicine I am acquainted with, so effectually as the present, when given with propriety and varied according to its effects.

In the state of Puerility, a disposition to generate acidities still continues, tho' the redundancy of an Acid is less frequent in this than in a state of Infancy, on account of the greater strength of the digestive powers, and a change in the aliment, which being partly of the animal

mal kind, and of a nature opposite to an Acid, will in some measure counteract it. It must however be acknowledged, that the aciescent quality of the other part of their food generally predominates; and if this be not in any great degree, it will be productive of no ill consequence, but serves to excite hunger; tho' on the contrary, where it is redundant, 'tis the cause perhaps of that voracious appetite, sometimes observable in Youth. When such an appetite exists, whatever it proceeds from, the stomach is too frequently overcharged, and a foundation laid for the production of diseases. For such as are thus affected, hardly give themselves time to masticate their food, and eat more than they can properly digest. In consequence of which, there are generated in the stomach *acid* crudities, and slimy tenacious humours; and as these will every day be accumulating, they will gradually impair the appetite, and at length create a loathing of food. And tho' some will necessarily be taken down, it will in a great measure be deprived of its nutritive quality, and be converted into the same nature with the humours that deprave it. By this means the intestines, as well as stomach, will in time become lined, as it were, with slime, the proper *lodgment* and *pabulum* for worms; and if these disorders of the first passages are not timely removed, the whole constitution will

at

at length be affected, the natural secretions impeded, and glandular swellings, as well as many other diseases, to which youth are subject, be produced. The slightest reflection therefore will convince us, that the advantages of *Magnesia* are by no means confined to the state of Infancy, as an absorbent and purgative, since in conjunction with any acidulated liquor drank after it, it becomes a *neutral saline* medicine; the class frequently had recourse to, in order to attenuate and resolve Viscidities, to clear the *Primæ Viæ*, and promote the Secretions.

Persons in the Meridian of life, those at least who are blessed with a good constitution, are seldom liable to the diseases which are the portion of lax habits and weak *viscera*. From the strength of their digestive faculties, they are able to subdue and assimilate the various kinds of aliment, into one and the same homogeneous nature, and though Acids be conveyed into the stomach, they will not long retain that quality. Hence, as no acrimony of that kind will exist, *Magnesia* can no otherwise be of service to such persons than as an occasional remedy, either to cure the heart-burn, prevent costiveness, or empty the intestines. One thing however ought not to be forgot, that as *acid* crudities are, in every constitution, the natural consequences of intemperance both in eating and drinking, wherever an excess in either has been committed,

ted, a medicine such as this, which absorbs and carries off the sour and vitiated remains, may be taken to advantage.

The Decline of life is that period, in which the human constitution is most subject to Chronic Complaints; which, though sometimes produced from other causes, are frequently owing to *acid* acrimony. 'Tis true perhaps, as the few who oppose this doctrine alledge, that no Acid in a *pure* state can be conveyed into, or exist in, the blood. The extreme sensibility of the lacteals will prevent the one, and before the other can take place, or the blood and humours become *perfectly acid*, the patient must inevitably perish. But on the other hand, it will hardly be denied, that an Acid may to such a degree be diluted, as to find a passage into the blood without irritating the lacteals to a contraction; and by gradual, though slow, advances, be at length so far accumulated, as to be productive of diseases. Supposing however, that no Acid can be admitted into the blood, but exist only in the *Primæ Viæ*, yet the effects will by no means be confined there. For if the juices which are necessary to the formation of good chyle, are vitiated, as they must be from a predominating Acid; or if the nerves of the Stomach and Intestines be irritated to any considerable degree, as experience evinces they may, it is easy to conceive that the consequences of this will extend to, and affect  
the

the constitution; though it is impossible to pronounce in what shape the malady will appear, or in what diseases it will terminate. Certain it is, that the disorders of the other parts depend greatly on those of the *Primæ Viæ*. For not to mention the extensive consequences of the nervous affections of the stomach and intestines, an habitual costiveness only may, it is well known, lay the foundation of many chronical complaints.

But on the other supposition of an Acid entering into the blood, under the circumstances above mentioned (which is the more general opinion) it is natural to imagine that the effects of it will appear in a greater variety of shapes. “ He that considers,” says Mr. Boyle, “ what  
 “ not unfrequently happens in distempered bodies by the *Metastasis* of the morbid matter  
 “ (as for instance, how that which in the lungs  
 “ caused a violent cough, removed up to the  
 “ head may produce a quick decay of memory  
 “ and ratiocination, and a palsy in the hands  
 “ and other limbs) may enough discern, that  
 “ diseases that appear very differing, may easily  
 “ be produced by a peccant matter of the same  
 “ nature, only variously determined in its operation by the constitution of the parts of the  
 “ body where it settleth. Moreover, continues  
 “ he, it oftentimes happens, that diseases which  
 “ seem of a contrary nature, may proceed from  
 E “ the

“ the same cause variously circumstantiated: as a  
 “ dropfy and a slow fever may to unskilful men  
 “ seem diseases of a quite contrary nature, tho’  
 “ expert Physicians know, they may both pro-  
 “ ceed from the same cause, and be cured by  
 “ the same remedy \*.”

With respect to acid acrimony in particular, it is hardly to be conceived what a number of complaints may arise from this single cause. What these are, it would be almost endless to enumerate: The chief of them, however, it may not be improper to lay before the reader, which I chuse to do, on the authority of the judicious *De Gorter*, rather than on my own. “ An acid,” says he, “ § generated in the body is productive  
 “ of many complaints, especially in the first  
 “ passages, where it is found in the greatest  
 “ quantity, having undergone little alteration  
 “ from the action of the *viscera* and humours.  
 “ The effects of it in the stomach, are the  
 “ heartburn, a greedy and sometimes an insa-  
 “ tiable appetite, a change of the aliment into  
 “ a similarly vitiated state, a vomiting of curd-  
 “ led milk, a dejection of the spirits, flatulen-

\* *Boyle* Of the usefulness of Natural Philosophy. Essay v. p. 294.

§ Acidum in corpore natum multa producit mala, maximè in primis viis, ubi copiosius, minusque mutatum, actionemque viscerum et humorum vix passum. Rodendo ventriculum, cardialgiam, balimum, appetentiam caninam producit, alimenta ingesta in similem corruptelam mutat; lactis concreti revomitum, anxietatem præcordiorum, flatus, murmura, ructus, et eructationem humoris, dentibus

“ cies, croakings, belchings, and an eructation  
 “ of a four humour which sets the teeth on  
 “ edge. — Descending from the stomach into  
 “ the intestines, it occasions, if not subdued by  
 “ the bile and pancreatic juice, gripings, a rum-  
 “ bling in the belly, flatulent and colical pains,  
 “ accompanied with spasms and cold sweats; it  
 “ destroys also the saponaceous quality of the  
 “ bile and pancreatic juice, and changes the  
 “ former into a green, and sometimes a black,  
 “ colour. It occasions a flux of the belly with  
 “ violent griping pains, and the discharges are  
 “ either green or white, and fermenting, and  
 “ frequently of a sour smell; and from these  
 “ circumstances united, the whole body is some-  
 “ times convulsed. — The same *acid* conveyed  
 “ from the intestines thro’ the lacteals, destroys  
 “ the florid colour of the blood, and vitiates  
 “ the several humours that are secreted from it;  
 “ hence the urine appears white and turbid, and  
 “ sometimes is so sharp as to produce a stran-  
 “ gury: Hence too the sweat and matter of

dentibus stuporem inducentis, generat.----Ex ventriculo ad intestina  
 delatum, si a bile et succo pancreatico non subigatur, tormina, ru-  
 gitus, et murmura ventris, dolores colicos, iliacos, frigidos, roden-  
 tes excitat; ipse quoque bilis succique pancreatici saponaceam na-  
 turam extinguit: bilem æruginosam, imo atram producit; fæces  
 alvinæ torminosæ, æruginosæ, aut albæ flatulentæ, acidum sæpe  
 spirantes emittuntur; et ex consensu harum sæpe totum corpus con-  
 vellitur.----Acidum ex intestinis per lactea delatum sanguinem cor-  
 rumpit cum pallore, omnes sæpe inde secretiones inficit, hinc urina  
 alba turbida, quandoque acida stranguriosa: sudors materiaque in-

“ insensible perspiration have been known to  
 “ partake so greatly of an acid, as to change  
 “ the colour of red coral, worn about the body,  
 “ into white. It produces likewise an itching,  
 “ and eruptions of different kinds on the skin;  
 “ and the humour is sometimes so corrosive, as  
 “ to occasion ulcerations. It seems more espe-  
 “ cially to infect the nervous juice, circulating  
 “ between the *fibrillæ*, and secreted by the coats,  
 “ of the nerves, as well those that are inservient  
 “ to the vital as the animal functions; and by  
 “ vellicating the nervous *fibrillæ*, it occasions  
 “ fainting fits, the vertigo, an oppression at  
 “ the heart, lowness of spirits, palpitations,  
 “ yawnings, a tingling in the ears, convul-  
 “ sions, pains, rheumatism, and perhaps the  
 “ gout.” Thus far *De Gorter*; and in confir-  
 mation of his authority, if it should be thought  
 to want any, might be alledged that of Professor  
*Boerhaave*, Dr. *Van Swieten*, and our celebrated  
 Countryman, Dr. *Huxham*, in his treatise *De*

sensibilis perspirationis acida, corallia rubra gestata dealbans: Scabi-  
 biei pustularumque quædam genera in cute, et efflorescentias gene-  
 rans humoremque acrem tenuem rodentem in ulcera deponens.-----  
 Præprimis succum nerveum inter fibrillas nervorum circulantem,  
 et tunicis eorum secretum, inquinare videtur, tam nervorum, vita-  
 lium, quam animalium, unde syncopen, vertiginem, cordis com-  
 pressioem, anxietatem, palpitationem, oscitationem, aurium tin-  
 nitum, convulsionem, dolorem, arthritidem, et forsan podagram,  
 producere solet, vellicando nervosas fibrillas externè. *De Gorter*  
 Comp. Medic. 195, 196, 197..

*Colico Damnoniorum.* Since such therefore are the natural effects of a predominating acid, is it not obvious to conclude, that a medicine which directly counteracts the cause, must be highly efficacious in removing the consequences that result from it?

The method which the rational Physician pursues in order to cure chronical disorders, those at least which proceed from acid acrimony, is to correct and carry off the acidities in the *Primæ Viæ*, to alter the acescent disposition of the humours, and to strengthen the *Viscera* and vessels. How far the first of these intentions is answered by *Magnesia*, in preference to any other remedy, has already been observed; and were it calculated to answer no other purposes, and its operation confined merely to the first passages, it would be far from being an inconsiderable medicine, as it cuts off the source of such disorders. But its efficacy is much more extensive: for given in small doses, so as not to stimulate the intestines and bring on a purging, it will, on meeting with any Acid in the stomach, be converted into a neutral saline liquid; and when further diluted, mix with the blood; and assisted by proper exercise, and continued (as other Alteratives must be) for a considerable time, will be found little, if at all, inferior to the justly celebrated waters of *Epsom*, *Cheltenham* and *Scarborough*. And the reason of  
this

this is obvious; for the virtues of these and the like waters depend principally, if not wholly, on their bitter salt\*; and the purgative quality of this salt on its alkaline *basis*, which is *Magnesia*. This earth is in those waters, indeed, united with the Vitriolic Acid †, but is found, in conjunction with any other Acid, to repossess the same virtues, which it had in union with its native one. 'Tis not therefore to be wondered at, that the *Magnesia* separated by art, when it meets with an acid in the stomach, and is assisted with proper diluents, should operate on the constitution in the same salutary manner, as those medicinal waters; whose efficacy in removing chronical complaints, every year's experience abundantly evinces.

But salutary as those waters are, the use of them is not equally proper at all seasons of the year; nor are they alike suited to every constitution that stands in need of them. For besides the nauseous bitter taste, offensive to the more delicate palates, their coldness and chilliness have been frequently complained of. But neither of these inconveniencies attends the medicine here recommended, as it is confined to no particular season, is no ways disagreeable, and may be taken in any vehicle, best calculated to answer any particular intention. The more delicate may

\* *Rutty on Mineral Waters*, Pag. 63, 75.

† *Lewis Materia Medica*, Pag. 75, 491.

take it in Almond milk, or in water sweetened with Sugar, Orgeat, or Capillaire, and those whose stomachs require something moderately warm, may mix it with any grateful aromatic or medicated liquor; and where the *Bath, Buxton, Tunbridge, Bristol*, or any of the Chalybeate or Mineral waters are judged proper, it may be taken to advantage in conjunction with any of these; not only as it coincides with the principal intentions of such waters, but effectually removes and counteracts that restriction, which the use of them so frequently occasions. Hence appears the utility of this medicine, when a laxative is wanting, during a course of any of the mineral or chalybeate waters, and perhaps too it is the best and most proper preparative to the drinking of them.

Upon the whole, if to absorb acidities and clear the *Primæ Viæ*, if gently to stimulate the vessels and increase their contractile force, and by this means to propel the circulating fluids with a greater *impetus* to the obstructed canals, if to dislodge the impacted humours, and promote the secretions of the body, are among the chief intentions of cure in the diseases before recited, *Magnesia* deserves not in practice to be neglected. And having no tendency to dissolve the blood and weaken the constitution\*, it may in many

\* Operatur leniter et blandissimè, non atterit vires, non lassitudinem corporis ullam producit. *Zwingerius* de Pan. solut. Dissert. v.

cases justly claim a preference to the mineral and mercurial alteratives, as well as to the rough and more active purges; especially in tender and delicate habits, or constitutions much harrassed and impaired by diseases.

It must not however be dissembled, that valuable as this medicine is, some objections have been raised against it. By some it has been urged, that it is a mere *calx* or *caput mortuum*, and consequently of no virtue. By others, that it is uncertain in its operation, and sometimes productive of ill effects; whilst a third notion is advanced, that the powder obtained from the purging salts, is not the true and genuine *Magnesia*.

To the first of these objections, it may be sufficient to reply, that several of those substances which the Chemists, according to the principles of their art, rightly call a *caput mortuum*, have, 'tis certain, proved in the hands of the Physicians noble remedies\*. And with regard to *Magnesia* in particular, its effects on the body are very evident and apparent.

As to the uncertainty of its operation, and the ill consequences it is sometimes supposed to

\* In the *caput mortuum* of Vitriol, says Mr. Boyle, when not only all the Oil is forced away by the fire, but all the fixt salt is exactly separated by water, there seems to remain nothing but a worthless Terra Damnata: and yet it is of this that I make those Colcotharine Flowers which are possibly a nobler medicine than either the Oil, the Spirit, or the Salt of Vitriol. Nat. Phil. p. 150.

be productive of, it is readily acknowledged, that as its effects depend upon the existence of an Acid in the stomach and intestines, it must necessarily operate differently in different constitutions, and even in the same at different times; and if this be an objection of any weight, as in reality it is not, it may easily be obviated, and the sensible effects of the medicine be rendered at all times certain, by any acidulated liquor drank after it. Nor can the other circumstance in this objection be of more weight than the former, unless *Magnesia* had been boasted of as an universal remedy. Even the best medicines in nature, administered improperly, may be productive of ill effects. Humours of an highly acrid and putrid disposition, this powder, we have before observed, is not calculated to correct; and if the use of it be continued in such cases, it may prove injurious to the constitution. This is no more than what *Hoffman*, who highly extols the medicine, has observed; and should consequences of this sort sometimes follow, even in those habits where it may with propriety be administered, let it be remembered, that *Magnesia* is not to be answerable for the effects of every powder that may happen to be sold under that name. The *acrid salts* which almost always abound in the powders that are commonly to be met with are, in this case, only chargeable; for where the pure *Magnesia* has been substituted in

the room of these, the patient has been agreeably surpris'd with an unexpected benefit from the use of it.

To account for the existence of these acrid salts in the common *Magnesia*, and still farther to justify our attributing to them the bad consequences complained of, we need only attend to the following observation of the very ingenious Dr. *Black*. “The Alkali,” says he, “in the  
 “mixture (meaning that from which the powder  
 “is obtained) uniting with the Acid, separates it  
 “from the *Magnesia*; which not being of itself  
 “soluble in water, must consequently appear  
 “immediately in a solid form; but the powder  
 “which there appears, is not entirely *Magnesia*,  
 “part of it is the salt formed from the union of  
 “the acid and alkali. This neutral salt is found  
 “upon examination, to agree in all respects with  
 “Vitriolated Tartar, and requires a large quan-  
 “tity of hot water to dissolve it\*. As much of it  
 “is therefore dissolved as the water can take up,  
 “the rest is dispersed through the mixture in  
 “form of a powder. Hence the necessity of  
 “washing this powder with so much trouble.”  
 He afterwards adds, “If these salts are not

\* Dr. *Rutty* observes, that a scruple of Vitriolated Tartar boiled in two ounces of water to an ounce, that is in twenty-four times its own weight, was not entirely dissolved whilst warm, and when cold deposited a considerable quantity of undissolved matter. *Rutty* on Mineral Waters, p. 81.

“accurately

“ accurately separated, the powder concretes into  
 “ small grains, which when viewed with a micro-  
 “ scope, appear to be assemblages of needles di-  
 “ verging from a point\*.” How vellicating and  
 pungent these must be, and how justly they are  
 chargeable with the effects imputed to them we  
 leave every one to judge; for nothing surely can  
 be more preposterous or absurd, than the notion,  
 generally propagated, of their being left in the  
 powder to communicate to it the purgative qua-  
 lity; which absolutely depends, as may experi-  
 mentally be demonstrated, on its union with an  
 acid only.

Those who would insinuate that the *Magnesia*  
 prepared from the *sal catharticum amarum* is not  
 genuine, must, if they mean any thing, imply  
 that the powder obtained from thence, not being  
 calcareous, is destitute of one of the principles of  
 the earth, originally prepared from the nitrous  
 residuum by calcination. 'Tis true indeed, that  
 the *Magnesia* imported from abroad, being pre-  
 pared after this manner, contains in it a portion  
 of calcareous earth; but whoever attends to the  
 process of the first discoverers, if *Siboldus* and  
*Helwigius* were they, will find reason to believe,  
 that this was not the case with their powder. For  
 what renders the foreign *Magnesia* calcareous, is  
 the quicklime necessarily made use of, and ef-

\* See *Essays and Observations Phys. and Literary*, p. 162, 163.

essential to the formation of nitrous salts; whereas the formation of these salts has no visible connection with the pursuit of those Chemists, nor is the least mention made of quicklime in their process. And if this ingredient was omitted, as in all probability it was, the powder resulting from the original process must have been in every respect similar to that, which is now procured from the cathartic salts. But should it after all be insisted on, that the original *Magnesia* was calcareous, this is a circumstance by no means to be urged in its favour; and the method of preparing a powder divested of this quality, will on that supposition be an improvement on the first discovery: since a calcareous earth, in conjunction with the milder vegetable acids, or such as usually exist in the human body, becomes restraining; and consequently the mixture of such an earth with *Magnesia* must, in some measure, counteract one of the principal purposes of the medicine, at the same time that it increases not its absorbent quality. And this perhaps is the reason of what *Hoffman* has intimated, that the *Magnesia* obtained from the lixivium left after the boiling of common salt, operates better than that from the nitrous residuum\*. Not that the lix-

\* Denique hic pulvis terreus, simili modo quo *Magnesia*, ad unam vel ultra drachmam sumptus, tres vel quatuor, imo ultra, sedes elementer et sine incommodo movet, atque, ut nobis videtur, meliorem operationem exerit quàm *Magnesia Nitri*, quæ magnum  
jam

ivium which he mentions was entirely free from calcareous earth; but if it contained a less quantity than is to be found in the residuum of Nitre (and no better reason can be assigned for the fact he mentions) it affords an additional proof, if any were needed, that the *Magnesia* prepared with us here in *England* from the purging salts, which is non-calcareous\*, must be preferable to that imported from abroad.

Whether these observations do in any respect answer the purposes intended, must be left to the reader's determination. Thus much may safely be affirmed, that no endeavours have been wanting to give him all the satisfaction I was capable of doing. Should they serve only to excite some other person of more leisure and superior abilities to do farther justice to the subject, I shall by no means regret the pains I have bestowed on it. Had the process, which for many years has been no secret, been always attended to with that care and circumspection, which is necessary to a due

jam in medicina nomen et famam consequuta est. *Hoffmanni* Observat. Phys. Chym. p. 179.

\* By experiments made with different Acids, says Dr. *Black*, *Magnesia* appears to be a substance very different from those of the calcareous class, under which I would be understood to comprehend all those that are converted into a perfect quicklime, in a strong fire; such as lime-stones, marble, chalk, those spars and marbles which effervesce with *Aqua fortis*, all animal shells, and those called Lithophyta. All of these being joined with Acids, yield a set of compounds different from those made with *Magnesia*. See *Essays Physical and Literary*, p. 166.

preparation

preparation of the powder, an attempt to vindicate its character had been quite superfluous; as by this means, I am persuaded, the efficacy of the medicine had long since been ascertained, and the merits of it thoroughly established.



**T**HE Genuine MAGNESIA ALBA, prepared by S. GLASS, is sold by him, as usual, at *Oxford*, in Guinea, Half-Guinea, and Six-Shilling Boxes; with Directions for taking it inclosed.

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#### E R R A T A.

Page 6. line 3. in the note, for *remidium*, read *remedium*.

P. 7. l. 19. for *seive*, read *seve*.

P. 14. l. the last in the note, for 159, read 195.

P. 22. l. 9. for *varacious*, read *voracious*.

P. 28. l. the last in the note, for 195, read 194.



