

*An Account of some Books :*

- I. PHARMACEUTICE RATIONALIS, *ſive* Diatriba de MEDICAMENTORUM OPERATIONIBUS in Humano Corpore; Pars Secunda; Auth. Tho. Willis M. D. &c. E Theatro Sheldoniano. 1675.

**T**His Learned and Worthy Author (whoſe Death may certainly be reputed a publick loſs, and a detriment to the very Faculty of Phyſick,) ſaw but a very few dayes before his deceaſe this Book of his finiſhed in the Preſs; to which, if Heaven had thought good to have ſpared him longer amongſt us, he would doubtleſs have added many other Philoſophical and uſeful Pieces, for the improvement of Knowledge and the Art of Phyſick. But ſince that is denied us, we muſt content our ſelves with what he hath left behind, which indeed is of very great value, and ſpeaks the Learning and Merit of the Author to admiration.

He had not long ſince publiſh't the *Fiſt part* of this Argument, of which an Account was given in *Numb 99.* of theſe *Traicts*: We have now before us the *Second part* thereof, wherein the Author undertakes to give a Reason of the Operation of ſuch Remedies as have a reſpect to ſome Peculiar part of the Body, or to ſome Singular Diſeaſe, and are by ſome Specificque virtue or operation directed to thoſe Ends: And in doing this, he chiefly inquires into the Reason and Manner of the Operation of ſuch Medicins as are Peccoral, wont to be preſcribed againſt Coughs, Conſumptions, Catharr's, Aſthma's, and the like morbid Affections of the *Thorax*.

To this he premiſes, as a Ground-work, the Anatomie and Conſideration of the ſtructure of thoſe Parts, their Uſes and Functions.

In the Anatomical part, he doth with admirable curioſity and incomparable accuracy deſcribe and diſcourſe upon the wonderful Fabrique of the Lungs, which, with the Excellent *Malpighius*, he makes to be, in their whole ſubſtance, fiſtulous, and compoſed of nothing but tubes of different kinds and ſizes; which, though they ſeem to be ſtrangely complicated, and variously perplexed, yet are every where continuous, and running out with a mutual relation and habitude to one another, do orderly and regularly convey and diſpoſe up and down the Air, Blood, Lympha, and Animal Spirits, for their ſeveral and reſpective Uſes, Theſe

These parts are represented by very exact *Figures*, and the matter for these *Figures* is furnish'd by the Ingenious and Diligent Dr. *Edmund King*, with great skill and dexterity; as the Author himself acknowledges in the Dedication of this Book.

From the Conformation of the *Lungs* and the parts and Vessels thereof, the Author infers, that the *Use* of the *Lungs* seems to him to be; That the Blood may be through the smaller Vessels, like so many little rivulets, displayed and exposed in all its parts, and all these parts meet with the Nitrous particles of the Air, and be inspired with Vitality from the same.

Having explained the *Organs* of Respiration, he searches into the *Cause* of that constant vicissitude of the *Systole* and *Diastole*; and having assigned it to be the Animal Spirits, rushing out of the tendons into the carneous fibres, to perform the Contraction of the Muscles, and receding back out of *these* into *those*, to perform their Relaxation: Having, I say, done this, he shews the different cause of the *Spontaneous* and the meer *Natural* function in Animals, deriving the *former* from those Animal Spirits that are dispens'd by the *Cerebrum*; the *latter* from those that are furnish'd by the *Cerebellum*; proving withal, that Respiration is, as 'twere, a mix'd work partaking of both functions, the spontaneous and natural.

After the examination of the structure of the *Lungs* and the Parts thereof, serving for Motion and the entertainment of Life; he proceeds to consider the various ways and accidents, by which that manifold *apparatus* of organs may be vitiated, and consequently the functions, depending therefrom, perverted; esteeming, that this Pneumonique Engin, lodged in the breast, whereby the Air being inspired, we maintain the life of the blood and its motion and heat, is exceedingly subject to depravation; as a Watch that is with great Art composed of a spring, ballance, wheelles, strings, &c. is very liable to disorder.

Here he shews, How the Uses and Ends of Respiration may be spoiled; which is done chiefly two ways: *First*, when the Blood does not duly circulate through the Heart and the Pneumonique Vessels; which may sometimes be caus'd within the right ventricle of the heart, or the Pneumonique Arteries, sometimes also within the left ventricle, or the pulmonary veins: *Secondly*, when the Air is either not duly inspired and expired in or out of the Wind-pipe and its branches: Of each of which as there are various cases,

causes, and causes, and ways, so the chief of them are here learnedly discussed; with an Animadversion on the *Sylvian* opinion concerning the bloods effervescence in the Lungs. Here occur various Inquiries; 1. How the blood may be impeded sometimes by too little, sometimes by too great, an accension; sometimes also by the depravation of it's *Crafsis*, the texture of it being often too loose (whence store of serosity, and corruptive *miasmata* are deposited in the Lungs) often too close (whence arise Fevers, Pleurifies, Peripneumonia's.) 2. How the blood may be impeded by the fault of the Heart, when the Spirits of it are either deficient or move irregularly. 3. How it may be hindered by the obstruction of the passages, which may also happen divers ways, and from divers causes. 4. How it may be impeded by the Air, either wanting, or corrupted: Where are noted the defects and vices of the Air, and the many obstructions and other ill effects proceeding from thence, amongst which are Catharrs, Asthma's, Coughs, Atrophies or Consumptions.

These things being dispatched, he advances to the chief design of this work, which is the *Pathology*, and treats largely of the remedies proper to cure those indispositions and diseases of the *thorax*, and to render an Accompt of the manner of their operation.

And in this part he considers the origine, nature, symptoms and remedies of the several sorts of PHTHYSICAL maladies, of Blood-spitting, Peripneumonia's, Pleurifies, Empyema's, Asthma's, Thoracical Dropsies. In all which the Reader will find many considerable particulars, touching Tabifique matter and it's causes; as also concerning Transpiration impeded; the various Incongruities of the inspired Air; the Congruity of a sulphureous Air, and of sulphureous Medicines to Consumptive bodies, with the reason thereof: Further, concerning strange sorts of Coughs, and their Cures; divers grievous Asthma's, and some convulsive ones, and the way of curing them; a very odd case of an *Ascites* in the Breast, caused by the rupture of some Lympheducts there, follow'd by an *audible* dropping of the Liquor into the cavity of the part. And, as this Disease of the Pectoral Dropsie, so all others of the *Thorax* here discoursed of, are illustrated with very remarkable Cases and Histories.

In the next *Section*, the Author considers the Diseases of the

*Viscera*, and delivers the Remedies, and Ways, and Reasons of Curing them, as of the former. Here occurs *first* the *Icterus*, together with *Sylvius's* and the Author's opinion touching the Cause thereof; to which are subjoyned the *Sylvian* Empirical remedies of the same, together with the Authors method of performing the Cure thereof. *Secondly*, the *Dropsy*, and the various kinds, differences, causes and cures of it; with a Note, that the *Tympanites* is properly no *species* of Dropsy, nor caused from Winds, but from an inordinate Inflation of the membranous parts, caused by the disordered Animal Spirits influencing those *viscera*.

In the following *Section*, he treats *first*, of *Phlebotomy*, it's Uses and Effects; whether to be used in continual putrid Fevers; what Cautions to be observed in Blood letting, in regard of the part to be open'd, as also in respect of the Disease, Age, Quantity, &c; why in some Cases 'tis not at all to be used; why, when made too sparingly, 'tis often noxious and heightens the Fever, &c. *Secondly*, of *Hæmorrhagies*, why not always to be stopped, and how many ways they may be stopped. *Thirdly*, of *Vescicatories*, their varieties, uses and effects, and with what Constitutions they agree best, and with which not at all. *Fourthly*, of *Fistula's* or *Issues*, *viz.* what Humors they evacuate; in what diseases they are most conducive; and for what bodies they are not convenient; with a Note upon that vulgar Error, which insinuates, that *Issues* dispose to barrenness. *Fifthly*, of *Cutaneous* Diseases; their varieties and cures; and particularly of the *Psoa*, and its nature, origine, cure. *Sixthly*, of the *impetigo* or *Lepra Græcorum*, its rise, property, and remedies.

To sum up all, the Author hath *first*, with great care and exactness viewed in the human Body those Parts and Places where the Medicines are to perform their operation: *Then* he hath been solicitous, according to the *phenomena* of all and every part, discover'd by his Anatomical Observation, to render solid and genuin *hypotheses* of the Diseases, by him designed to cure; and having made it his business to derive the Causes of Maladies from their very Sources, he hath every where endeavoured to shew from what disposition of Blood and Humors, from what affection of Animal Spirits, and from what constitution of Fibers and other solid parts, every sickness he treats of proceeds. And having laid those things for a solid foundation, to build thereupon

a firm superstructure of his *Pharmacentice*, he hath lastly deliver'd abundance of Medicaments, respecting those examined Parts and Regions of the body, and their peculiar Indispositions; which Remedies are both Simple and Compounded, Old and New, Dogmaticque and Empirique: Of the preparations, operations and effects of all which he subjoyns their respective Reasons.

II. *COLLEGIUM EXPERIMENTALE sive CURIOSUM, in quo primaria hujus Seculi Inventa & Experimenta Physico-Mathematica, A. 1672. quibusdam Naturæ Scrutatoribus spectanda exhibuit & ad causas suas naturales demonstrativâ methodo reduxit Johannes Christophorus Sturmius, Mathem. ac Phys. in Academ. Altdorfina Prof. P. &c. Norimbergæ, A. 1676. in 4º.*

**T**He Learned Author of this Piece, in the Invitation he made to some Students in Philosophy, at *Altorf* in *Germany*, importing that they would list themselves under his conduct for the Examination and Consideration of some of those Discoveries and Experiments made of late years, takes notice, that in this one Age, not yet elapsed, there hath been a far greater progress made in Natural Philosophy, than in many Ages before, and that by means of that happy *Experimental* Method, embraced and exercised by the *Royal Societies* of *England* and *France*, and the noble *Colledges* of *Rome*, *Florence*, *Venice*, &c. by which Method, he saith, the Disputacious way of wrangling about mere Scholastical and fruitless notions being laid aside, Things themselves from the inmost Recesses of Nature have been searched into, and not a few of them discover'd and brought to light. Of which that he might enamour and possess his Auditors, he resolved to take the pains of proposing and explaining them to those that were inclined to such Studies; and having so done, to make publick the result of all those particulars: Which is the thing he hath now executed in this Volume: Wherein the *Reader* will find *XVI* *Essays*, of a Philosophical Nature, by him treated of; which he acknowledges to have been, at least for the most part, handled, experimented and discoursed of, by

some of the most Eminent Philosophers of this Age; amongst whom he names the Illustrious *Bacon*, *Des Cartes*, *Torricelli*, *Boyle*, *Roberval*, *Paschal*, *Hugens*, and *Guerick*.

Of these XVI Essays,

The *first*, represents and explains the Diving Bell, its Structure and Use.

The *second*, exhibits the chief Optique *Phænomena* of a Darkened chamber, and shews their Causes.

The *third*, relates the Effects of the Baroscope or the *Torricellian* Quicksilver-Tube, and withal gives the reasons of them.

The *fourth*, shews some Experiments of some metallin weights floating, and without any other support freely pendulous in Water and Air; reducing them to their Causes.

The *fifth*, represents both to the Eye and the Understanding some other Hydrostatical *Phænomena*, about Glafs-bubles, at first floating on the surface of the water, and afterwards subsiding by affused oyl, &c.

The *sixth*, deduces some *Consectaries* from the before asserted Spring and Weight of the ever-gravitating Air; and those very *Consectaries* prov'd by the sense of the Eyes themselves.

The *seventh*, contains some Experiments of a Glafs-Tube, six and thirty feet high, filled with water, and declares their Causes from the *Æquilibrium* of the Air and so much Water.

The *eighth*, shews some *Phænomena* in very slender or narrow Tubes, *viz.* the Ascent of water in them above its other superficies; subjoining withal the reason thereof.

The *ninth*, exhibits the Effects, and declares the Causes of several sorts of Thermometers.

The *tenth*, mentions a very paradoxical Experiment of *Franc. Lana*.

The *eleventh*, represents and reduces to its principles the Force of Mechanical Powers, particularly that of a certain slender wooden Engin, which he saith was of such a power, that a Child of two years old, turning the handle thereof, did in his presence lift up a weight of 100 *l.* and at another time, a weight of 200 *l.*

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The *twelfth*, discourses of an Art, *both of writing* any thing in any Tongue, to be read and understood by any Nation of what Language soever, *and of reading and understanding* any thing written in any Tongue.

The *thirteenth*, contains some considerable Effects and Experiments of the *Air-pump*, partly made by others, partly said by our Author to have been devised and tryed by himself; all reduced to their proper Causes.

The *fourteenth*, declareth the Uses and Reasons of the Effects of Hygrometers and Chronometers.

The *fifteenth*, explains the structure of Microscopes and Telescopes, compröbating their Effects from many Observations.

The *last*, exhibits divers pleasant Spectacles of a portable darkned Room, and of a Catoptro-Dioptrical Lantern, adding the genuin Reasons of them; and for an *Appendix* subjoyns his new, as he esteems it, Perpetual Almanack, comprehending not only the *Immoveable* Feasts fixed to certain days of the Months, but also the *Moveable* ones, of Easter, Pentecost, and the rest depending from them; as also the Motions of the Sun and Moon through the twelve celestial Signs, together with the Moons menstrual increases and decreases, &c.

Having dispatched this, he takes notice, that reflecting upon what he had done and discoursed in the former Papers, he found it not amiss to write some *Appendixes* to the *Essays* before recited, supplying therein *partly*, what in his Philosophical Colledg had been by word of mouth noted in reference to the above-mentioned phenomena and conclusions; *partly*, what had been thought fit to add to them by way of Illustration, upon a second perusal and examination of the same.

And in this part he *first* discourses more particularly of the diving Engin and Divers; and *then*, of the Weight of the Air, acknowledged by *Aristotle* himself to gravitate in its own place; alledging for that purpose out of c. 4. of his 4th. Book *de Cælo*, these remarkable words; ἐν τῷ αὐτῷ γὰρ χώρῳ πάντα βαίνει ἔχει πλὴν πυρὸς, καὶ ὁ ἄηρ; σημῖον δὲ, ὅτι ἔλαττον ὁ περιουσημένῳ ἀσπιδος τῷ κενῷ. *Thirdly*, of the *Hylarchical* principle of Dr *Henry Moor*, which he examines; alledging, not to have yet *seen* what he *hears* Mr. *Boyle* hath written upon that Argument in *English*. *Fourthly*, of the new Pocket-

Pocket-watches, equivalent to Pendulum-Clocks; of which see *Numb. 112.* of these *Traacts*. To which are added many other particulars, which cannot be all taken notice of here; we shall only note further, that our Author in this part of his Book gives to those persons, to whom he professes himself obliged for their noble Experiments, and judicious Ratiocinations, more *particularly* their respective dues, than he had done in the first part.

III. *ENGLAND'S IMPROVEMENTS, in two parts, &c.* by Roger Cook, London 1675. *in 4o.*

**T**HIS Author, appearing to be of a very publick Spirit, seems to have spent a great part of his Life in considering the ways of furthering the Publick Welfare of his Native Country, and in enquiring, for that end, into the present State of *England*, compared with other Countries: For, finding that mens business generally relates to, and arrives at, their Individual either profit or reputation, and that these are so intended by them, that their whole life is hardly enough to answer the desires running out for the one or the other, and that therefore a third person is necessary to undertake a business of so publick a nature; he resolved to set himself a part for such a work, as may make it out to considering men, that without *Freedom* of Trade, the Trade and Strength of a Nation cannot be rendered considerable; removing, before he enters upon the matter, that vulgar Objection, as if Trade and Commerce could, and must, only flourish in popular Governments.

Now this Piece consists of *two Parts*: In the *former* is discoursed, How the Kingdom of *England* may be improved in Strength, Employment, Wealth and Trade, by increasing the Value of Lands; the Revenue of the Crown and Church; Peace and Amity with Forreign Nations, without any Charge to the Subject. In the *latter* is represented, How the Navigation of *England* may be increased, and the Sovereignty of the *British* Seas more secured to the Crown of *England*.

What this Gentleman hath performed in these Weighty points, we must not presume to judge, but leave that to the Impartial and Judicious Reader to determine.



IV. *The COLLEDGE of PHYSICIANS VINDICATED, and the TRUE STATE of PHYSICK in this Nation faithfully represented, &c.* by Charles Goodall, M. D. London, for Walter Kitteiby at the Sign of the Bishop's head in St. Paul's Church yard, 1676, in 80.

**T**HIS Vindication of the eminently learned *Colledge of Physicians of London* from the Imputations lately charged upon them in a Paper, entituled the *Corner Stone*, &c. consists of three parts, answering to as many Heads, as the Objections of their Adversaries are reducible unto; *viz.* 1. That the said Colledge is not established by Law. 2. That the Proceedings of the same against Empiricks and Unlicensed persons is oppressive. 3. That the Physicians educated in Universities, and particularly the said Colledge have been the great Hinderers of the Art of Physick, and more especially of that of Chymistry.

Of the Answers to these three Accusations we shall pass by those that relate to the *two first*, as being of a *Juridical* Nature, and consequently not belonging to the cognisance of these *Traacts*: But the Answer to the *third* Objection, whereby we are by the Learned and Ingenious Author enabled to understand the real Advantages of a regular Institution of Methodical Practice, and the Danger of mere Empirical Administrations, we cannot but take notice of; forasmuch as by shewing, that the said *Colledge* with those other Learned Physicians educated in Academies, have not been hinderers, but the principal Promoters of the Art of Physick in Anatomy, Chymistry, and the Method of Curing; by shewing this, *I say*, our Author delivers many considerable particulars, relating to those three main Pillars of the Medical Art: As *first*, that something hath been done in *Anatomy*, both by Antients and Moderns, that hath conduced to the better Cure of Diseases. *Secondly*, that the *Moderns* have improv'd the Anatomick part of Physick by their late discoveries. *Thirdly*, that Chymistry hath been practised by some of the greatest Anatomists and Practisers of our Age; of whom he names Dr. *Willis*, Dr. *Sylvius*, Dr. *Borrichius*, Dr. *Dimmerbroeck*, Dr. *Daniel Cox*. *Fourthly*, that

that the Noble Art of Chymistry owes its chief advancement to Physicians of Academick Education and to Collegiate Members, such as *Mynsicht*, *Beguinus*, *Hartman*, *Grulingius*, *Horstius*, *Schroderus*, *Quercetan*, *Mayerne*, *Zwelfer*, *Beccherus*, *Langelot*, *Borrighius*, *Du Clos*, *Vallot*, *Rugeley*, *Goddart*, *Merret*, besides those aforementioned. *Fifthly*, that, whereas the Accuser will not allow the *London-Colledge* of Physicians any one particular improvement of the Art of Physick, our Answerer shews, 1. That those Doctrines which can acquaint us with the real constituent Principles of the Blood, and other humors and recrements of human Bodies, and with their various preternatural affections, must of necessity conduce to the improvement of the Practice of Physick. 2. That there was a particular improvement made in the *Art of Curing*, by *Dr. Glisson*, *Dr. Bates*, and *Dr. Regemorter*, by curing the *Rickets*.

As for the Usefulness and Necessity of *Method* in the Cure of Diseases, we shall not here speak of it, but refer to the Author himself.