



THE COMPLETE WORKS
OF

RUDOLPH
GLAUBER

trans: Chris. Packe



SECRETS OF MEDICINE
AND ALCHEMY



1.

The
Works
of the
Highly Experienced and Famous Chymist,
John Rudolph Glauber;
containing,
Great Variety of Choice Secrets
in

Medicine and Alchymy
In the Working of Metallick Mines, and the
Separation of Metals,

Also

Various Cheap and Easie Ways of making SaltPetre, and improving
of Batten-Land, and the
Fruits of the Earth.

Together with many other things very profitable for all the
Lovers of Art and Industry. Translated into English, and
Published for Publick Good by the Labour, Care and Charge, of
Christopher Packe, Philo-chymico-Medicus.
London,

Printed by Thomas Milbourn, for the Author, and are to be sold
at his House next Door to the Gun in Little-Moorfields; by D.
Newman at the Kings-Arms in the Poultry, and W. Cooper at the
Pellicam in Little Britain. MDCLXXXIX.

2.

To The

Honoured, and Truly Learned,

Edmond Dickenson, M. D.

Physician to the King's Person and Family.

The Art of Chymistry, (Honoured Sir) although in its Speculations moat Noble and Delectable to a Philosophick Mind, and in its Practice highly Inservient, and Beneficial to Mankind; yet hath it not escaped the the Obloquies, and false Imputations of Detractors, and Caluminiators, who either through Ignorance, Idleness, or Envy (or all of them conjoined) have made a false Representation of this most Noble Art to the World, and endeavoured to set Mankind at the greatest distance from that which is its highest interest to court. For which cause such Writings as Promulge, and offer at the advancing of the CHYMICAL ART, stand in need of such a Patron as is able to defend them against all the Cavils of Pride, Envy, and Ignorance.

And if the Exquisite Parts, and Protound Learning in the more Abstruse Philosophy, together with a Long, and Indefatigable Scrutiny and Labour in the Chymical Art, accompanied with a happy Practice in the Honourable Faculty of Physick, be fit Accomplishments to Entitle one a MECAENAS of this Art; then are those Excellencies all met and Concentred in your self, as is evident to the whole World by your Curious and Learned Epistle to MUNDANUS, and his Answer to it, which answer will be a Lasting Testimony of your great Worth and Merit.

For certainly, Sir, it is no small evidence of your Worth and Abilities

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in the PYROTECHNICK ART, that a Philosopher who had been more than forty years an ADEPT, in all that time should not find three Persons, besides your self, whom he thought worthy to make certain of the truth of what they sought, and aspired after; and yet gave you an Ocular Satisfaction and Certitude of that which Thousands have desired to see, but could not: And further seriously professing, that if he had had the same liberty from his Master, that some ADEPTS enjoy, that he would have revealed to you the whole Secret.

These things have induced me humbly to offer this Book to your Patronage, not doubting but under your Name and Protection, it will be able to overcome many Difficulties, and obtain a free passage in this our English World, to the benefit and advantage of many well disposed persons, who seek after Honest, Profitable, and Commendable Arts, which I am fully perawaded was the chief end of the Author in Writing: and I am sure is mine in Translating his Works. You are throughly acquainted with Glauber's Writings, you know his Menstruums, and his Medicines, and are able to attest the truth of what others may account false and impossible. As for such of them as concern the higher Classes of Chymistry, I shall say nothing (being yet but ad Corinthum vergens) but commit them to your Mature Judgment, and protection, humbly craving your pardon for this my presumption, and for what Errors or Oversights I may have committed in this Work; and desiring your Favourable Acceptance of these my poor Endeavoura. I take leave to conclude with a passage of the abovementioned Excellent MIJNDANUS. I am fully persuaded, that by the Blessing of God upon your Sagacious Labours, you will at length obtain

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that which will abundantly Compensate your Pains and Cost. To which I adjoin my own hearty Wishes; and that after you have been as happy in this World, as true Philosophy can make a Man, you may be Eternally Happy in that which is to come. I am

Sir,

An Honourer of

Your Name and Learning,

Christopher Packe.

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The
Preface
To The
R e a d e r.

That the Art of Chymistry is very useful and highly serviceable in Physick, Chyrurgery, Husbandry, and MechRltick Arts, is long since evinced by the Excellent Mr. Boyl (the Honour both of our Age and Country) in his Experiment at Philosophy, or Philosophick Essays; who in Essay I. and II. shews that the Examination of the Juices of Human Bodies, by the Art of Chymistry, may illustrate their Use and Nature. And that by it may be Explicated the Nature of our several Digestions, and their Attractions. And afterwards Cap. VIII. page 19If. speaking of the advantages that Chymistry affords to the Therapentick or Curative part of Physick, (which is the chief and principle) and to which all the other parts are subservient) is pleased to express himself thus: I cannot but think that if Chymistry did no more than assist us, by the resolution of Bodies, to extricate their more active parts, and partly by such Resolutions, and partly by associating Bodies together, to alter the former Texture of Natures productions, or present us with new Concretes of new Textures: by this very means, if Men want not Curiosity and Industry, to vary and prosecute Experiments, there must necessarily arise such a store of new and active Medicines, that in all probability, many of them ,ill be found endowed with such virtüé as have not been (at least in that degree) met with, in the usual Medicines, whether

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Simple or Compound, to be bought in Apothecarys Shops; and consequently, even without any notable discovery, or improvement of Principles, Chymists (even as Matters now stand with them) may considerably add to the Pharmaceutical part of Physick. But if the Operations of Chymistry were seriously enquired into, and thoroughly understood, I make little doubt, but by a skillful Application of them, and especially by a series of them, in a Rational and Orderly way succeeding one another, there may be found out a great many preparations of Remedies, both very different from the common Ones, and far more Noble then they. And presently after he adds. That if we had but a few Potent Menstruums to dissolve and unlock Bodies with, I scarce know what might not be done in Chymistry. Then further in that Essay where he treats of the usefullness of Chymistry to the Empire of Man over the Inferiour Works of Nature; he proceeds to shew that Chymistry is very serviceable to Husbandry in all its parts, and to other professions that serve to provide Men with Food or flaiment, or do otherwise minister to the Necessities or Accomodations of Life, as Bakers, Brewers, Dyers, & etc.

Thus far this Learned Philosopher: To which I shall only add this, That if when he wrote those Essays, Chymists were able to contribute so much to the Necessities and Conveniences of Mankind, when Chymistry was but young in England, and but few Chymists who were accurate in their Operations, and perhaps, fewer who had any competency of Learning, or so much as lightly Tincted with the Hermetick Philosophy; if, I say, that it discovered so great a light when it had but newly ascended our Horizon, and was, as I may say, but in its infancy, what assistance may

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now be had from it, when (notwithstanding all the obstacles, and unkind usage it hath met withal) it is grown to a more virile Age and Vigour: But although Chymistry be much enlarged, and advanced in England, in respect of the Numbers, and Qualifications of the Lovers, and professors of it; yet are not Chymists free from pressing Disadvantages, not having the freedom of adminiatring their own Medicines, bow powerful and salutiferous soever, and otberwise adapted to the necessities of the Sick, than the common Apparatus of Physick. So, that as the Case now stands, the help and Succour which the Sick and Diseased receive from Chymical Physick, is but very small to what they might have, if knowing Chymists had the freedom of exercising that Art in all its parts, which with much Industry, Labour, and Costa, they have been sollicitious to attain. But when this disencouragement of ingenuity and Obstacle of the publick good, shall become more apparent to those in whose power it is to redress it, I do not doubt but it will meet with a Remedy.

But now, to give some account of my present undertaking. I have at length (by God's help, and the assistance of my Subscribers) finished my Translation of Glauber's Works, and here present it to the Reader, in the English-Tongue. How well I have performed it, I must submit to the judgement of others: I could have been very glad to have seen it done by some abler hand; but when I have heretofore proposed the doing but of some parts of it to those whom I knew might easily have accomodated English Artists therein; telling them that I wondered so Excellent an Author, should be so long extant, and that none should unveil him of his Latin and German Coverings, and put him into an English Dress.

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I have had for an answer, that this Age was not worthy of it; so that it seems to me, that the Providence of God had reserved it for fitter times, although to be done by one of the meanest of the Sons of Pyrotechny. But this I can say, that I have acquitted my self in this matter, as well as the slenderness of my Parts, weakness of Body, and the necessary Affairs of my Laboratory would permit me; but;

Ubi desint Vires, acceptanda est Voluntas.

I desire the Lovers of Chymistry to accept my Labours, with the same good will that I have undergone them, having no other end but to serve my country. And I hereby return thpnks to all those generous spirited Gentlemen and others, who have Subscribed to, and promoted this Work, without whose assistance (the Charge being very great, as well as the labour to me, almost insupportable) it must yet have remained hid and unserviceable to the English Reader. But I am in an especial manner obliged to that spirited Gentleman (whom I ought to name, were it lawful to do it without his leave) who freely offered me and put into my hands a not inconsiderable part of the Materials for this Work, which part, also had been more considerable than it was, had not the Spirit of some, (who unjustly hindered it) been as Mean and Sordid, as his was Generous. But that loss was, in part, made up to me, by a well-minded Artist, to whom I also return Thanks.

I have Printed this Book upon far better and larger Paper than I proposed to do it in; for as the time of setting forth my first Proposals, I had not the German Pieces, but when they came in my hands, upon a more accurate Computation of the matter, I found that if I should go on to do

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the Work upon the Paper I had proposed, the Book would swell to too great a thickness for its breadth and length, and not be only ill shaped, but inconvenient to be read. By this means my Subscribers have a much better Book than I promised them, although the Charge hath also been Considerably greater to me, than I at first expected.

The Reader hath all here in one Volumne which Glauber ever Printed, as far as I can find upon diligent Enquiry at Amsterdam, where all his Writings were Printed, and where I purchased the Original Copper Plates belonging to them. But whereas, as 'tis said in the Explication of Miraculum Mundi, page 177. That the Cut there described was not Printed in the Latin Copies, nor to be found among the Original Plates; yet notwithstanding, I was not willing that the Work should go without the Figure of so useful a Furnace asthatis, for the Torrefying, or Calcining of Ores, and separating, and depurating their Metals, for which reason I have caused it to be Delineated and Printed with others before the continuation of Miraculum Mundi, after page 188. I have also procured from the hand of another friend, who is a Lover of Art, the Draught of the Refrigeratory, Furnace, or Instrument, which serves for the making the Mercury of Wine, purifying, and fixing of Argentive, Antimony, Sulphur, & etc. and many Other uses which an Ingenious Artist will find out. This Furnace the Author always endeavoured to conceal, but describes it in some part in the beginning of the sixth part of the Spagyricall Dispensatory, to which Description I have added the Figure. The Figures of the several Vessels and Instruments belonging to the Fifth Part of the Furnaces, are referred to at the beginning of the

Fourth Part, but since, for the better orders sake I have placed them before the said Fifth Part.

These Twelve following Treatises were never Printed in Latin, but in the German Tongue only, viz. The Third, Fourth, and Fifth Centuries; the Second and Third Appendixes to the Seventh Part of the Spagyrical Dispensatory. The Book of Fires. Proserpine. Elias the Artist. The three Fire -atones. The Purgatory of Philosophers. De Lapide Animalis. The. Secret Fire of Philosophers, All which I have caused to be Translated (my self being ignorant of the German Tongue) by a person well skilled both in High-Dutch, and also in Chymistry, whereby I hope this Book will not be altogether unserviceable even to the Learned; besides, all the Works of this Author that are very difficultly (if at all) to be met with at any Book-sellers Shop in London, and those that are, at a dear rate: For when I had entered upon this Translation, I was forced to send to Amsterdam to have all the Latin pieces compleat.

The Author in many places refers to his Opus Saturni, Opus Vegetabile, and the Concentration of Heaven and Earth, which Treatises, I am assured, were never printed (at least under those Titles) which also seems to be manifest from his Epistle to the First Century, or General Appendix, wherein he inculcates, that for want of time, he had inserted the sum of them all in that Treatise. He also mentions a Seventh part of the Prosperity of Germany, in the Preface to the Second Part of Pharmacopoeja Spagyrica, which was never Printed under that Title, but I am induced to believe it is in the Novum Lumen Chymicum, as partly appears by comparing it with the foresaid Preface. And it is evident that in

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some parts of his Writings he hath mentioned a Treatise by one Name and afterwards Printed it by another, as, The Testimonium Veritatis, which was afterwards Printed by the Name of Explicatio Miraculi Mundi. As for the Opus Saturni, I have heard that there are some Manuscript Copies of it, and had hopes of obtaining it from two several hands, but both failed me. I have been also informed, that there are Five Centuries in Manuscripts more than I have Printed, but could never understand in what hands they were, except one of them, viz, the sixth, the proprietor of which would not be so kind to let me have it to print.

I have (by the advice of an Honourable Person) left out the Author's Religious and Moral Digressions, where I could do it without prejudice to the matter; as also his :Apologetical Writings, except his Apology against Farmer, which I have printed, for asmuch as it is intermixt with many profitable Secrets, which perhaps, he would not have published, at least not at that time if they had been, as it were, extorted from him by the ill Treatment of that Ungrateful Man.

I could not place the several Treatises in that order which the Author published them, without breaking the order of the several parts, as of the Miraculum Mundi, Spagyricall Pharmacopoea, and Prosperity of Germany; for being many years in publishing, they were done promiscuously, but how they succeeded one another so far as the Nature of Salts, the Reader may satisfie himself in the Preface to that Treatise. And as his Writings were published by peice-meal, so are the principal Secrets he teacheth, scattered up and down in divers parts of them, in one place he treateth of a thing obscurely, or but in part, in another place of

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the same thing openly in that part which he had vield in the other. Sometimes he declares a Process very openly, omitting only some small Circumstances, or Manual Operation, which would seem to many either, impertinent, or not necessary to be done, when notwithstanding, the business will not succeed without it. An instance of this may be given in his Sal Mirabilia, whose preparation he teacheth obscurely in the Nature of Salts, but more openly in the Second Part of Miraculum Mundi. In the Nature of Salts, and in the Sixth Part of the Pharmacopoeia Spagyrica, he teacheth how to Dissolve Gold therewith, and thence to make a kind of Aurum Potabile, but wholly omits the adding of a certain Vegetable Sulphur, without which, the work will not answer the Description; this Defect he supplys in the Second Century, after a twofold manner, the one not obvious to every Man's Apprehension, I mean the intent of the Author, viz, in those Processes where he shews the making of a Vegetable Sulphur; but the other sheweth the necessary Manual Operation in plain and open words. And this he hath done with all his Secrets on set purpose, that they should be found out by none but the Industrious.

And this hath given occasion to many, who have not taken pains to read him with diligence, or not being experienced in Operating, to reproach him for an obscure, yea, even for a false Writer, because they have made two or three Superficial, or Unskillful Trials of his Processes, which have not succeeded according to their Expectations, when indeed, the faults was in themselves, either in not perceiving the Authors intention, or their own want of skill in rightly managing the Operation: And I know some persons that sometime scarce said Glauber had been too

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dark in his Writings, who now think he hath wrote too plain.

But having mentioned this, I will here (for the sake of those Country Gentlemen, who have subscribed to this Work) a little Elucidate the Authors Process about the inversion of Common Salt, with Lime, for the enriching of Poor and Barren Land. He indeed speaks of several Saline Preparations, which greatly promote the fertility of the Earth, but this with Common Salt, and Lime, is the cheapest of all, and also is most easie to be done, for any Plow-man, or Labourer, having but once seen it done, may be presently able to manage it. The sum of it is, that Common Salt be turned from its sharpness, into an Alcalizate Nature (which is hot and fat) which then by its Magnatick force will attract from the Air a Vivifyng, Fructifyng, Salt-nitrous power, and long retain it in the Earth, which is the cause of all Growth and Vegetation, as the Author sheweth in the Continuation of Niraculum Mundi, and many other places; but gives the Process of the preparation in plain and open words in the Appendix to the Fifth Part Of: the Prosperity of Germany, page 416.

Neither is the practise of preparing either the Land or the Seed, in order to the better Crop, altogether Novel, as may be partly seen in Virgil, Georgic Lib. 1. where he saith,

Semina vidi equidem multos medicare ferentes,
Et Nitro prius, & nigra perfundere amurca:
Grandior ut foetus filiquis fallacibus esset, etc.

Which in English may sound thus:

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Some have I seen their Seeds to sow prepare,
With Nitre and Oil-Lees, for they by care
Will grow far greater, and be sooner ripe, & etc.

The Lime must be spread upon the ground, where no Rain can come to it, till it slake it self by the Air, and fall into a Powder; of this Powder you are to take four hundred weight to one hundred weight of any common foul Salt, which is too impure for the use of the Kitchen, where such may be had, otherwise clean Salt, (for that will be cheaper than Dung) the Salt and Lime are to be well mixed, and then moistened with such a quantity of Water, (or rather Urine where it may be had) as will bring the Lime and Salt mixed, to the Consistency of a stiff Morter, Of this Mass Balls are to be made about the bigness of ones fist, and laid under a Shead, or Hovel to dry; being dried, they are to be burnt in a Kiln as Lime is, so that the Balls may be red hot for an hour at least; or where no Lime-Kiln is near, they may be burnt by building a Pile in the Field, first with a Lay of Wood, then a Lay of Balls, then Wood again, and so till the Balls are placed fit for burning. When the Balls are burnt, they are to be again placed upon a Floor under a Shead, or Hovel, where they may be exposed to the Air, but kept free from the Rain, and if you break them with a Clod-beater presently, the Air will the sooner act upon them, and cause them again to fall into a Powder; which Powder may then be carried out and spread, or rather sowed out of a Seeder, thicker or thinner as the Land shall require. Provided this be done in the beginning of Summer about the time of Fallow, for

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that being many Months before the Seed is to be sowed, the fieryness of the rich Compost will be Contempered by the Air and the Earth, and changed into a Nitrous fatness, which joining it self with the Earth, is again Magnetically attracted by the Seed when it is sown, whose growth is thereby swiftly promoted, and its Multiplication much augmented. But if any should cast this Matter upon his Land soon after it is burnt, and presently after that should sow his Seed, instead of having a greater Crop then he used to have, he would have a less, or perhaps none, that Year, but the next Year, and so on for many Years, the same Land would bring forth Pleantifüllly. Therefore it is necessary, that this Matter should lie six or seven Months spread upon a Floor, and now and then turned with a Shovel, as you turn Malt, that it may be Contempered, and Animated by the Air; or be cast upon the Land so long before the Seed be sown, The reason is the very same with Dung, for none takes fresh Dung and spreads it upon his land when he is about to sow his Seed, for if he should, his Seed would burn up; but the Husbandman lets his Dung lie some time to rot, as he calls it, after which he lays it on his Land, and lets it lie spread some time before he plows it in, and all this is but to Contempir the heat of the Animal Salt contained in the Dung, and turn it into a Nitrous Nature. Thus much I thought good to say about this Matter in the plainest words, least any, not thrOUGHly understanding the Authors Intention, should err in the first Experiment, and so unjustly blame the Author, and forbear themselves and deter others from prosecuting that easie Practise, which I am confident, if rightly managed, will bring much profit to many persons in

this Nation, This must also of necessity be a profitable Work to those who will undertake it upon the account of making of Salt-petre; especially to such as understand the Nature and Generation of that Excellent salt, which is of such incomparable use in the Preparation of Medicines, separateing of Metals, and in many Mechanick Arts.

Now for asmuch as in this Work Sal Mirabilis, Spirit of Nitre, and Spirit of Salt, are recomended to very many uses, and every one that hath a mind to make Experiments with them, may not have the knowledge, or the conveniency of preparing them, I hereby signifie, that I intend (God willing) to prepare and keep by me the Author's Sal Mirabilis of both sorts, that peculiar Spirit of Salt, which be commends against the Scurvy and other Diseases, and also to keep Beer from sowering in the Summer, in the Consolation of Navigators. His Panacea of Antimony, and Golden Panacea, spoken of in the Second Part of the Pharmacopoeia Spagy. the Explication of Miraculum Mundi, and divers other places. His Aurum Diaphoreticum, also the Tincture of Gold, or Aurum Potable, are described to be made of the Irreducible Blood of the Lion) in the Sixth part of the Spagyrical Pharmacopoeia, Chap. 22. These I propose constantly to keep by me for the accommodating of Physicans, and others, who shall have occasion to buy them. Those are Excellent Medicines, and such as a Physican may have some confidence in; and indeed, this Book contains a great variety of such Medicines as will get a Physican Honour, which (I hope) will be tryed by all those who delight to do good, and be brought into use for the general Help and Comfort of the sick. For I freely confess, that if I have any thing in Medicine, beyond what is commonly

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known, I have had the Foundations of it from this Author; and if God shall please to grant me life to a fit time, I doubt not but I shall from those Foundations be able to raise such a Superstructure as shall testifie the truth of his Writings, and powerfully evince the Worth and Excellency of Chymical Medicines, and that demonstratively in matter of Fact, viz, by the Curing of both Acute and Chronick Diseases.

And now by way of Conclusion, I have only one thing more to add; and that is a Request to all the Ingenious Lovers of Chymistry, that they would not occasion this Work, which I have undergone with so much Labour, and loss of time from my private Concerns, meerly for the good of others, to redound to my own hurt; my meaning is, That I might not be put to the charge and trougle of Letters about Curious Enquiries, wherein I am to have not the least profit: This I mention, because I have had divers such Letters come to my hands since I have been about it, and that sometimes two or three being very long ones with many Queries, in one Week. Now should this continue, and I endeavour to satisfie all the Doubts, and gratifte all the Curiosities of all such non-considerate persons, truly I should have no time besides what this would take up, to provide for my self and Family. But notwithstanding what I have said, if any Ingenious Person shall stand in need of my Assistance, in preparing of anything for him, or otherwise, wherein I may have a reasonable recompence for my Time and Trouble, I will be ready to give him the best assistance I can. For I am now but just ready to recieve a Writ of Ease from three Years of daily Labour and care about this Work, and I would be willing to enjoy it some time, that I might again with diligence apply

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my self to my Laboratory, the effects of which, if God shall see good., may at one time, or other, shew themselves to the World, In the mean time, I wish all Honest and Ingenious Lovers of the Spagyrick Art, good success in their Studies and Labours, that thence the Penuries and Miseries of Mankind, especially of the sick, may be effectually remedied; that they may Cooperate as Instruments with the great ends and providences of the Almighty, to bring about that time, in which God shall be Glorified all the World over, and Men live in a more serene and tranquil condition than yet they have done, which shall always be the Desire and Prayers of him that is a Lover of Pyrotechny, and Honourer of all true Artists.

From my House next Door to the Sign of the Gun in Little Moor-Fields, 1688.

Christopher Packe.