
SECTION IV.

PREPARATIONS of METALLINE MINERALS.

Mercurij Solutio.

Solution of Quick-silver.

TAke of clean Quick-silver, and double *Aqua fortis*, each a like quantity; and digest them in a vial, placed in a sand-heat, so that there may be made a limpid solution of the Quick-silver*.

Mercurij Calx.

Calx of Quick-silver.

Take any quantity of the Solution of Quick-

* The vial is properly ordered to be placed in a Sand-heat, for if it were cold, the putting of the Mercury and *Aqua fortis* together, might easily break it; but if the menstruum prove too weak, or as it is probable, according to this direction, too small in quantity, more must be added, till a perfect Solution is made; taking care to avoid the noxious fumes.

silver,

silver, and with a soft fire evaporate it to a white and dry mass*.

Mercurius Præcipitatus albus.

White Precipitate of Mercury.

Take any quantity of the Solution of Quick-silver, and gradually pour upon it exceedingly strong Brine, till all the Quick-silver be precipitated into a white powder; which is to be washed with hot water in the filtre, till it communicates no more sharpness thereto: afterwards the Powder is to be dried between folded paper †, with a very gentle heat.

Mercurius Præcipitatus fuscus, vulgò *Wurtzy.*

Brown Precipitate of Mercury.

Take any quantity of the Solution of Quick-silver, and gradually drop into it a due proportion of Oil of Tartar *per deliquium*; that is, so much as will put a stop to the effervescence, and cause the Powder to fall to the

* The Solution and Calx of Quicksilver are very properly placed at the beginning of this section; as being used in almost every subsequent mercurial preparation; whereby the trouble in the several operations will be considerably lessened; provided those be constantly kept in readiness.

† The folded paper is prudently directed to drink up the superfluous moisture, otherwise the Precipitate dries but slowly.

bottom; and this also is to be edulcorated with Water, like the white Precipitate*.

Mercurius Præcipitatus ruber.

Red Precipitate of Mercury.

Take any quantity of the Calx of Quick-silver; gradually reverberate it in a crucible, and it will first change from white to brown, then to a yellow, and, at length, upon increasing the fire, become an exceeding red Powder, which is to be well washed with Water, and edulcorated ||.

Mercurius Præcipitatus viridis.

Green Precipitate of Mercury.

Take of Copper, half an ounce; of double *Aqua fortis*, an ounce; and make a Solution, according to art; to which add eight ounces of the Solution of Quick-silver: mix them together, evaporate them to dryness, and pour upon the Powder as much distill'd Vinegar as will float some inches above it: digest them in a sand-heat, for two days; then pour off the Tincture, put on new Vine-

* From which it differs only as to the precipitant; which being a fix'd alkali, directs the use and exhibition of the precipitate.

|| The word precipitate is improperly applied to this preparation, as being no more than an acuated red calx of Mercury, obtained without any precipitation.

gar,

gar, and extract afresh; afterwards mix the Tinctures together, filtre them, and evaporate them till they become dry*.

Mercurius Præcipitatus flavus, seu Turpethum Minerale.

Yellow Precipitate of Mercury, or Turbith Mineral.

Take of crude Quick-silver, very well purified, four ounces; and of rectified Oil of Vitriol, sixteen ounces; make a Solution thereof in a retort, placed in a sand-heat; and afterwards, by application of a strong fire, evaporate it to dryness. Grind the white Calx left at bottom †, and throw it into warm Water, and it will immediately turn yellow: then, by repeated ablutions, free it from all its acrimony, and dry it||.

Mercurius sublimatus corrosivus.

Corrosive Mercury-sublimate.

Take of the Calx of Quick-silver, and of decrepitated Sea-salt, each a like quantity; re-

* This is an extraordinary preparation of mercury, and of great efficacy in stubborn chronical cases; especially the *lues venerea*, when highly virulent, or grown inveterate.

† But grind it not in a metalline mortar.

|| This is acknowledged one of the most effectual emetics and purgatives in obstinate chronical, but especially venereal, cases.

duce

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duce them to Powder, mix them, and put them into a vial, whereof they may possess near a half, and in a sand-furnace, first with a soft fire; then gradually increasing it, a white, crystalline mass will sublime to the top part of the glass, and every way adhere thereto; which is afterwards to be separated from the red *scorie*; and to be purified, if there be occasion, by repeated sublimation*.

Mercurius sublimatus dulcis.

Sweet Mercury sublimate.

Take of Corrosive Mercury-sublimate, ground in a glass mortar, four ounces; and of clean Quicksilver, three ounces; mix them well in the mortar till the globules of Quicksilver disappear: then put the powder into an oblong vial †, whereof it may possess only one third; and bury it half way in a Sand-heat; then with successive degrees of fire, nearly the whole quantity of Mercury will sublime, and stick all around to the upper part of the glass; which being broke, and the red powder about the bottom, and the white about the neck clear'd away, the white mercury is again to be twice or thrice sublimed.

* This is a very concise and elegant way of making mercury-sublimate; and perhaps as good as any.

† A *Florence* Flask does very well for this purpose.

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If the operation be six times repeated, the preparation is call'd *Calomel*, or *Aquila alba* *.

Panacea Mercurij.

Panacea of Mercury.

Take any quantity of levigated *Calomel*, and digest it in a Sand-heat, for twenty days, with four times its own weight of Spirit of Wine; observing frequently to shake the containing vessel; then pour off the Spirit, and dry the Powder *.

Ethiops Mineralis.

Ethiops Mineral.

Take of *Quicksilver*, and *Flowers of Sulphur*, each a like quantity; and grind them

* Fewer repetitions are generally made to serve the turn; and will some times answer the end as well; but to be certain of this, requires a good degree of skill in the operator: 'tis therefore safer for the patient, tho more tedious for the labourer, to follow the directions here given.

† The menstruum is here designed to deprive the mercury of part of its saline matter, and so to render it more safe and mild; consequently the spirit should not be rectified; and after all, perhaps a common ablu-tion in water might answer the end as well; but if the calomel be entirely robbed of its salt, how does it differ from a white indolent earth?

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together, in a glass mortar with a glass pestle, till the globules of mercury become utterly indiscernible *.

Crocus Metallorum.

Saffron of Metals.

Take of Antimony and Nitre, each a like quantity; grind them separately, then mix them well together, and gradually throw them into a red-hot crucible: after the detonation is over, and the crucible cooled and broke, separate the reddish metalline matter from the white crust, and edulcorate it with water †.

Antimonium Diaphoreticum.

Diaphoretic Antimony.

Take of Antimony, half a pound; of Nitre, a pound and half; pulverize them separately, then mix them together, and throw them, by a spoonful at a time, into an ignited crucible: after the detonation, let the white mass be detained for half an hour in the fire; then powdered, and thrown into water: digest them for a night, and afterwards pour off the

* More virtues, I fear, are attributed to this preparation, than it is really possess'd of: but there appears little reason to doubt of its safety.

† Mr. *Wilson* uses a proportion of common Salt in this preparation, but there seems to be no great occasion for it.

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water

water and add fresh, so that the powder may be well wash'd five or six times*.

Regulus Antimonij.

Regulus of Antimony.

Take of Antimony, Nitre, and crude Tartar, each a like quantity; reduce them to powder separately, mix them together, and at several times put the whole into an ignited crucible; when the detonation is over, build up a large fire, so as to make the matter flow like water; then pour it out into a melting cone, first heat'd and greas'd with tallow, and keep it shaking, that the *Regulus* may separate, and fall to the bottom: when all is cold, free the *Regulus* from the *scoriae* at top †.

* Among the different opinions relating to the virtues of this remedy, it is very hard to determine any thing certain; but what Mr. *Wilson* says of it, is very extraordinary, viz. that whereas "its usual dose is from five grains to twenty five, I have known it given with good success, by half an ounce at a dose, and repeated two or three times in a day, and that for several days successively." *Wilson's Chemistry*, pag. 98. Which procedure must, according to *Boerhaave's* notion, plaister over the inside of the intestines with a hard crust, or metalline calx. See *Boerhaave's Chemistry*, pag. 312. PRACT. But the fault, according to him, lies wholly upon edulcorating or working the medicine; otherwise he thinks it possess'd of the same virtues with *Sal polychrestum*. See also pag. 311. *ubi supra*.

† For the due conducting of this process and the following, with many curious particulars relating thereto; see *Boerhaave's Chemistry*, pag: 305—308. PRACT.

Regu-

Regulus Antimonii Martialis.

Regulus of Antimony with Iron.

Take of Antimony, Nitre and crude Tartar, each a pound; of pieces of Iron, half a pound: make the Iron red-hot, in a crucible; and gradually add the other ingredients to it, having first ground and mix'd them together; and proceed entirely after the same manner, as in making the Regulus of Antimony.

If the Regulus of Antimony with Iron, be thus several times fused with Nitre and Tartar, it will at length become the *Regulus Antimonii stellatus*, or starry Regulus of Antimony*.

Sulphur Auratum Antimonii.

Golden Sulphur of Antimony.

Take any quantity of the *Scoriae* of Regulus of Antimony, grind them to powder, whilst they are yet hot, and boil them, for a considerable time, in thrice their weight of Spring-water; filtre the solution, (which appears of a colour between a yellow and a red,) through Cap-paper; then by dropping into it a due proportion of distill'd Vinegar, the powder will precipitate; which is to be wash'd with

* This is no other than matter of fact; tho it is generally look'd upon as a lucky hit, rather than any thing else, to make the starry regulus. See *Boerhaave's Chemistry*, pag. 306—308. PRACT.

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water,

water, so as to edulcorate and free it from its ill scent *.

Butyrum Antimonij.

Butter of Antimony.

Take of Antimony and Corrosive Mercury-sublimate, each a like quantity; first grind them to powder apart; then mix them thoroughly, with the utmost caution, to avoid the fumes: Put them into a coated glass retort, having a wide and short neck, so as to possess only one half; then fitting on a receiver, place it in a Sand-heat, giving a gentle fire at first, that the dew only may come over; then increasing the fire, there will arise an oily liquor, that sticks like ice, to the neck of the retort; and is therefore to be cautiously melted down into the receiver, by holding a live coal near it. Afterwards let this oily liquor be rectified in a glass retort, till it appears of a very white colour †.

Cinnabaris Antimonii.

Cinnabar of Antimony.

As soon as ever the red fumes begin to rise in the preceding operation, let the receiver be changed, without luting the junctures; and

* For the particular phenomena and rationale of this process, see *Boerhaave*, pag. 308, 309. *ubi supra*.

† For fuller information and the necessary cautions relating to this process, see *Boerhaave's Chemistry*, pag. 314, 315. PRACT.

increase the Fire till the retort becomes red-hot, upon which, in the space of an hour or two, all the black powder will be sublimed into a red one. Then break the retort, and in the neck thereof will be found the Cinnabar, which is carefully to be separated from the black *scoria* *.

Mercurius Vitæ.

Take any quantity of rectified Butter of Antimony, and pour thereto a due proportion of Spring-water, that a very white Powder may be precipitated ; which is first to beedulcorated by repeated infusions of warm Water, and afterwards dried, with a soft fire †.

Bezoardicum Minerale.

Bezoar Mineral.

Take any quantity of newly rectified Butter of Antimony, and gradually pour to it a due proportion of Spirit of Nitre ; that is, so much as will stop the effervescence: then draw off the floating Liquor in a glass vessel, placed in a Sand-heat, till the powder is left dry ; upon which, again pour a little Spirit of Nitre, and dry it a second time. Repeat the operation a third time ; then put the powder into a crucible, and commit it to the naked fire, till it be-

* See *Boerhaave* ubi supra, pag. 319.

† See *Boerhaave* ubi supra, pag. 317. and *Quincy's Dispensatory*, pag. 292.

comes almost red hot; in which state let it be detained for half an hour *.

Bezoardicum Joviale.

Bezoar of Tin.

Take of Regulus of Antimony, three ounces; melt it in a crucible, and add to it two ounces of very pure Tin, so as to make a new Regulus thereof; which being leyigated, mix therewith five ounces of corrosive Mercury-sublimate; distil it in a retort, and fix the Butter thence distilled, by three repeated distillations, with thrice its weight of Spirit of Nitre; afterwards calcine it, and whilst ignited, quench it in a sufficient quantity of Spirit of Wine; and lastly dry the Powder †.

* If this preparation be really possessed of no medicinal virtue, as in the opinion of *Boerhaave* it has none at all; it ill deserves a place in this otherwise admirable collection of useful remedies. See *Boerhaave's Chemistry*, p. 318. PRACT. But *Dr. Quincy* gives it a considerable character, prefers it to *Antimonium Diaphoreticum*, declares it will eradicate even Leprosies, and the most obstinate cases of that kind, if rightly managed." See *Quincy's Dispensat.* p. 293.

† This preparation is little more than *Bezoar Mineral*, at bottom; being, like that, only butter of Antimony (made indeed with the addition of Tin) fix'd by the spirit of nitre: for corrosive sublimate, and antimony, are the ingredients of butter of Antimony, which, as the Butter here, is fix'd by Spirit of Nitre, in the making of *Bezoar Mineral*.

Anti-

Antihecticum Poterij.

Poterius's *Antihectic.*

Take of the Regulus of Antimony, made with Iron, six ounces; of the best Tin, three ounces: melt these together in a crucible, and pour them into a mortar, first heated, and greas'd with Tallow; and when the mass is cold, reduce it to powder: then add thereto thrice its weight of very pure Nitre; and throw the whole into an ignited crucible, by a spoonful at a time; where it will make a detonation, and calcine for an hour: then grind the mass again to very fine powder, and pour thereto a due proportion of hot Spring-water, and stir them about with a pestle till the Water grows milky; which being thus saturated with the fine Flower, is to be poured off, and fresh hot Water again added to the remaining Powder; and this to be repeated till nothing is left at the bottom but a dirty matter that will not dissolve. Then let all the milky Liquors stand at rest together, that the fine Powder may be precipitated; which is afterwards to be several times washed in warm Water, and then dried*.

* The medicine doubtless will be the better for this kind of ablution and precipitation; but few there are that bestow so much time and pains upon it: tho' to clear it well of its salt, is to make it the remedy here intended.

Tar-

Tartarus Emeticus.

Emetic Tartar.

Take of Crystals of Tartar, four ounces; of *Crocus Metallorum* reduced to Powder, an ounce; and boil them together, in four times their own weight of Spring-water, for ten hours, keeping them frequently stirring with a Spatula, and adding more Water as there shall be occasion: then filtre the hot Solution, and evaporate it to dryness, or to a pellicle, that the crystals may shoot*.

* Which crystals being gently dried are the medicine required.

The reader has here, under the Head of Chemical Medicines, a regular and well digested Compendium, or short Course of Chemistry; extracted, with good judgment, from the most approved authors; and which being well mastered and practised, will give the Operator a sufficient Insight into the Art, and furnish the Shops with a Set of excellent and approved Preparations.

F I N I S.

