METALS AND THEIR COMPOUNDS.

Alumen exsiccatum.

Take any convenient quantity of alum; fuse it over the fire in a vessel of iron or earthenware; continue the heat till ebullition ceases and vapour is no longer discharged; and then reduce it to powder.

Antimonii oxidum.

Take of Sulphuret of Antimony in fine powder, four ounces;
Muriatic acid (commercial,) one pint;
Water, five pints.

Dissolve the sulphuret in the acid with the aid of a gentle heat; boil for half an hour; filter; pour the fluid into the water; collect the precipitate on a calico filter; wash it well with cold water, then with a weak solution of carbonate of soda, and again with cold water till the water ceases to affect reddened litmus paper. Dry the powder over the vapour bath.

Pulvis antimonialis.

Take of Sulphuret of Antimony, in coarse powder;
Hartshorn shavings, equal weights;

Mix them, put them into a red-hot iron pot,

and stir constantly till they acquire an ash-gray colour and vapours no longer arise. Pulverise the product, put it into a crucible with a perforated cover, and expose this to a gradually-increasing heat till a white heat be produced, which is to be maintained for two hours. Reduce the product when cold to fine powder.

ANTIMONII SULPHURETUM AUREUM.

Take of Sulphuret of Antimony, in fine powder, one ounce;
Solution of Potash, eleven fluid-ounces;
Water, two pints;
Mix the water and solution of potash, add the sulphuret, boil for an hour, filter immediately, and precipitate the liquid, while hot, with an excess of diluted sulphuric acid. Collect the precipitate on a calico filter, wash it thoroughly with water, and dry it with a gentle heat.

ANTIMONII TARTARIZATUM.

Take of Sulphuret of Antimony, in fine powder, four ounces;
Muriatic acid (commercial,) one pint;
Water, five pints;
Dissolve the sulphuret in the acid with the aid of a gentle heat; boil for half an hour;

filter; pour the liquid into the water; collect the precipitate on a calico filter, wash it with cold water till the water ceases to redden litmus-paper; dry the precipitate over the vapour-bath.

Take of this precipitate three ounces;
Bitartrate of potash, four ounces and two drachms;
Water, twenty-seven fluidounces;
Mix the powders, add the water, boil for an hour, filter, and set the liquid aside to crystallize. The mother-liquor when concentrated yields more crystals, but not so free of colour, and therefore requiring a second crystallization.

VINUM ANTIMONIALE.

Take of Tartar-emetic, two scruples;
Sherry, one pint;
Dissolve the salt in the wine.

ARGENTI NITRAS.

Take of Pure Silver, an ounce and a half;
Pure Nitric acid, one fluidounce;
Distilled water, two fluidounces;
Mix the acid and water, add the silver, and dissolve it with the aid of a gentle heat; increase the heat gradually till a dry salt be obtained; fuse the salt in an earthen-ware or porcelain crucible, and pour the fused matter into iron moulds previously heated and

greased slightly with tallow. Preserve the product in glass vessels.

LIQUOR ARSENICALIS.

Take of White Arsenic in powder, and
Carbonate of Potash, of each, four scruples;
Compound Tincture of Lavender, five fluidrachms;
Water, one pint;
Dissolve the oxide and carbonate together in half the water, with the aid of heat; filter, if necessary; add the tincture to the liquid when cold, and then dilute it with water till the whole measure one pint.

BARYTAE MURIAS.

Take of Carbonate of Baryta, in fragments, ten ounces;
Pure Muriatic acid, half a pint;
Distilled water, two pints;
Mix the acid and water; add the carbonate by degrees; apply a gentle heat towards the close of the effervescence; and when the action is over, filter, concentrate, and set aside the solution to crystallize.

or

Take of Sulphate of Baryta, two pounds;
Charcoal in fine powder, four ounces;
Pure Muriatic acid, a sufficiency;
Heat the sulphate to redness, reduce it to

fine powder, mix the charcoal with it thoroughly, heat the mixture in a covered crucible for three hours at a low white heat. Pulverize the product, put it gradually into five pints of boiling water; boil for a few minutes; let it rest for a little over a vapour-bath; pour off the clear liquor, and filter it if necessary, keeping it hot. Pour three pints of boiling water over the residuum, and proceed as before. Unite the two liquids; and while they are still hot, or, if cooled, after heating them again, add pure muriatic acid gradually so long as effervescence is occasioned. In this process the solutions ought to be as little exposed to the air as possible; and in the last step the disengaged gas should be discharged by a proper tube into a chimney or the ash-pit of a furnace. Strain the liquor, concentrate it, and set it aside to crystallize.

SOLUTIO BARYTAE MURIATIS.

Take of Muriate of Baryta, one drachm;
Distilled water, one fluidounce;
Dissolve the salt in the water.

BISMUTHUM ALBUM.

Take of Bismuth, in fine powder, one ounce;
Nitric acid (D.1380) one fluidounce and a-half;
Water, three pints;

Add the metal gradually to the acid, favouring the action with a gentle heat, and adding a very little distilled water so soon as crystals or a white powder may begin to form. When the solution is complete, pour the liquid into the water. Collect the precipitate immediately on a calico filter, wash it quickly with cold water, and dry it in a dark place.

CALX.

Heat white marble broken into small fragments in a covered crucible at a full-red heat for three hours, or till the residuum when slaked and suspended in water no longer effervesces on the addition of muriatic acid.

AQUA CALCIS.

Take any convenient quantity of water ; pour a little of it over about a twentieth of its weight of lime ; when the lime is slaked, add it to the rest of the water in a bottle ; agitate well ; allow the undissolved matter to subside ; pour off the clear liquor when it is wanted, replacing it with more water, and agitating briskly as before.

CALCIS MURIAS.

Take of White marble, in fragments, ten ounces ;
Muriatic acid, (commercial) and
Water, of each one pint ;

Mix the acid and water; add the marble by degrees, and when the effervescence is over, add a little marble in fine powder till the liquid no longer reddens litmus; filter and concentrate to one-half; put the remaining fluid in a cold place to crystallize; preserve the crystals in a well-closed bottle. More crystals will be obtained by concentrating the mother-liquor.

CALCIS MURIATIS SOLUTIO.

Take of Muriate of lime, eight ounces;
Water, twelve fluidounces:
Dissolve the salt in the water.

CRETA PRÆPARATA.

Take any convenient quantity of chalk; triturate it well in a mortar with a little water; then pour it into a large vessel nearly full of water, and agitate briskly; allow it to rest for a short time, and pour the milky water into another vessel, in which the fine suspended chalk is to be left slowly to subside; repeat this process with the coarsely powdered chalk which subsided quickly in the first vessel; collect the fine powder in the second vessel on a filter of linen or calico, and dry it.

CUPRUM AMMONIATUM.

Take of Sulphate of Copper, two ounces;

Carbonate of Ammonia, three ounces;

Triturate them thoroughly together, till effervescence ceases, wrap the product in blotting-paper, and dry it first by folds of blotting-paper, afterwards by exposure to the air for a little; and preserve it in closely-stopped bottles.

CUPRI AMMONIATI SOLUTIO.

Take of Ammoniated Copper, one drachm;
Water, one pint;

Dissolve the salt in the water, and filter.

FERRI CARBONAS SACCHARATUM.

Take of Sulphate of Iron, four ounces;
Carbonate of Soda, five ounces;
Pure Sugar, two ounces;
Water, four pints.

Dissolve the sulphate and carbonate each in two pints of the water; add the solutions and mix them; collect the precipitate on a cloth filter, and immediately wash it with cold water, squeeze out as much of the water as possible, and without delay triturate the pulp which remains with the sugar previously in fine powder. Dry the mixture at a temperature not much above 120°.

FERRI IODIDI SYRUPUS.

Take of Iodine (dry) 200 grains;

Fine Iron-wire recently cleaned, 100 grains ;
White-sugar in powder, four ounces and a-half ;
Distilled water, six fluidounces.

Boil the iodine, iron, and water together in a glass mattrass, at first gently to avoid the expulsion of iodine-vapour, afterwards briskly, until about two fluidounces of liquid remain. Filter this quickly, while hot, into a mattrass containing the sugar ; dissolve the sugar with a gentle heat ; and add distilled water, if necessary, to make up six fluidounces.—Twelve minims contain one grain of iodide of iron.

FERRI IODIDUM.

Take any convenient quantity of Iodine, Iron-wire and Distilled water in the proportions for making Solution of Iodide of Iron. Proceed as directed for that process ; but before filtering the solution concentrate it to one-sixth of its volume, without removing the excess of iron-wire. Put the filtered liquor quickly in an evaporating basin, along with twelve times its weight of quicklime around the basin, in some convenient apparatus in which it may be shut up accurately in a small space not communicating with the general atmosphere. Heat the whole apparatus in a hot air-press, or otherwise, until the

water be entirely evaporated; and preserve the dry iodide in small well-closed bottles.

FERRI MURIATIS TINCTURA.

Take of Red Oxide of Iron, six ounces;
Muriatic acid, (commercial) one pint;
Rectified Spirit, three pints;
Add the oxide to the acid in a glass vessel; digest with a gentle heat, and occasional agitation, for a day, or till most of the oxide be dissolved; then add the spirit, and filter.

FERRI OXIDUM NIGRUM.

Take of Sulphate of Iron, six ounces;
Sulphuric Acid, (commercial) two fluidrachms and two fluidscruples;
Pure Nitric Acid, four fluidrachms and a-half;
Stronger Aqua Ammoniæ, four fluidounces and a-half;
Boiling water, three pints.
Dissolve half the sulphate in half the boiling water and add the sulphuric acid; boil; add the nitric acid by degrees, boiling the liquid after each addition briskly for a few minutes. Dissolve the rest of the sulphate in the rest of the boiling water; mix thoroughly the two solutions; and immediately add the ammonia in a full stream, stirring the mixture at the same time briskly Collect

the black powder on a calico-filter; wash it with water till the water is scarcely precipitated by solution of nitrate of baryta; and dry it at a temperature not exceeding 180°.

FERRI OXIDUM RUBRUM.

Take of Sulphate of Iron, four ounces;
Carbonate of Soda, five ounces;
Boiling water, half a pint;
Cold water, three pints and a-half;
Dissolve the sulphate in the boiling water, add the cold water, and then the carbonate of soda previously dissolved in about thrice its weight of water. Collect the precipitate on a calico-filter; wash it with water till the water is but little affected with solution of nitrate of baryta; and dry it in the hot air-press or over the vapour-bath.

FERRI SULPHAS.

If the Sulphate of iron of commerce be not in transparent green crystals, without efflorescence, dissolve it in its own weight of boiling water acidulated with a little sulphuric acid; filter; and set the solution aside to crystallize. Preserve the crystals in well-closed bottles.

FERRI SULPHAS EXSICCATUM.

Expose any convenient quantity of Sulphate of iron to a moderate heat in a porcelain or

earthen-ware vessel not glazed with lead, till it is converted into a dry grayish-white mass, which is to be reduced to powder.

FERRI SULPHURETUM.

The best sulphuret of Iron is made by heating an iron rod to a full-white heat in a forge, and rubbing it with a roll of sulphur over a deep vessel filled with water to receive the fused globules of sulphuret which form. An inferior sort, good enough however for pharmaceutic purposes, is obtained by heating one part of sublimed sulphur and three of iron-filings in a crucible in a common fire till the mixture begins to glow, and then removing the crucible and covering it, until the action, which at first increases considerably, shall come to an end.

FERRUGO.

Take of Sulphate of Iron, four ounces;
Sulphuric Acid (commercial) three fluidrachms and a-half;
Nitric Acid (D. 1380), nine fluidrachms;
Stronger Aqua Ammoniæ three fluidounces and a-half.
Water, two pints;
Dissolve the Sulphate in the water, add the Sulphuric acid, and boil the solution; add then the Nitric acid in small portions, boil-

ing the liquid for a minute or two after each addition, until it acquires a yellowish-brown colour and yields a precipitate of the same colour with ammonia. Filter; allow the liquid to cool; and add in a full stream the Aqua Ammoniæ, stirring the mixture briskly. Collect the precipitate on a calico filter; wash it with water till the washings cease to precipitate with nitrate of baryta; squeeze out the water as much as possible; and dry the precipitate at a temperature not exceeding 180°.

When this preparation is kept as an antidote for poisoning with arsenic, it is preferable to preserve it in the moist state, after being simply squeezed.

FERRUM TARTARIZATUM.

Take of Sulphate of Iron, five ounces;
Bitartrate of potash, five ounces and one drachm;
Carbonate of Ammonia in fine powder, a sufficiency.

Prepare the Rust of iron from the sulphate as directed under Ferrugo, and without drying it. Mix the pulpy mass with four pints of water; add the Bitartrate; boil till the rust of iron is dissolved; let the solution cool; pour off the clear liquid, and add to this the Carbonate of ammonia so long as it occasions effervescence. Concentrate the

liquid over the vapour bath to the consistence of a thick extract, or till the residuum becomes on cooling a firm solid; which must be preserved in well closed vessels.

HYDRARGYRI BINIODIDUM.

Take of Mercury, two ounces;
Iodine, two ounces and a-half;
Concentrated Solution of Muriate of Soda, a gallon;

Triturate the Mercury and Iodine together, adding occasionally a little rectified spirit till a uniform red powder be obtained. Reduce the product to fine powder, and dissolve it in the solution of muriate of soda with the aid of brisk ebullition. Filter, if necessary, through calico, keeping the funnel hot; wash and dry the crystals which form on cooling.

CALOMELAS.

Take of Mercury, eight ounces;
Sulphuric acid (commercial), two fluidounces and three fluidrachms;
Pure Nitric acid, half a fluidounce;
Muriate of Soda, three ounces;

Mix the acids, add four ounces of the mercury, and dissolve it with the aid of a moderate heat. Raise the heat so as to obtain a dry salt. Triturate this with the Muriate of soda and the rest of the Mercury till the globules entirely disappear. Heat the mix-

ture by means of a sandbath in a proper subliming apparatus. Reduce the sublimate to fine powder; wash the powder with boiling distilled water until the water ceases to precipitate with solution of Iodide of potassium; and then dry it.

CINNABARIS.

Take of Mercury, two pounds;
Sulphur, five ounces;
Melt the sulphur, add the mercury, and continue the heat till the mixture begins to swell up. Then remove the vessel, and cover it closely to prevent the mixture taking fire. When the material is cold, reduce it to powder, and sublime it.

HYDRARGYRUM CUM CRETA.

Take of Mercury, three ounces;
Prepared Chalk, five ounces;
Triturate them together till the globules entirely disappear.

HYDRARGYRI OXIDUM RUBRUM.

Take of Mercury, eight ounces;
Diluted Nitric acid (D. 1280), five fluid ounces;
Dissolve half of the mercury in the acid with the aid of a moderate heat; and continue the heat till a dry salt is formed. Triturate the rest of the mercury with the

salt till a fine uniform powder be obtained; heat the powder in a porcelain vessel and constantly stir it, till acid fumes cease to be discharged.

HYDRARGYRI PRECIPITATUM ALBUM.

Take of Corrosive Sublimate, six ounces;
Distilled water, six pints;
Aqua Ammoniæ, eight fluidounces;
Dissolve the Corrosive sublimate with the aid of heat in the Distilled water; and when the solution is cold add the Aqua Ammoniæ; stir the whole well; collect the powder on a calico filter, and wash it thoroughly with cold water.

SUBLIMATUS CORROSIVUS.

Take of Mercury, four ounces;
Sulphuric acid (commercial), two fluidounces and three fluidrachms;
Pure Nitric Acid, half a fluidounce;
Muriate of Soda, three ounces.
Mix the acids; add the mercury; dissolve it with the aid of a moderate heat; and then raise the heat so as to obtain a dry salt. Triturate this thoroughly with the muriate of soda; and sublime in a proper apparatus.

MAGNESIA.

Take any convenient quantity of Carbonate of Magnesia, expose it in a crucible to a full

red heat for two hours, or till the powder, when suspended in water, presents no effervescence on the addition of muriatic acid. Preserve the product in well-closed bottles.

MAGNESIAE CARBONAS.

Take of Sulphate of Magnesia, four pounds;
Carbonate of Soda, four pounds and eight ounces;
Water, four gallons.

Dissolve the salts separately, each in two gallons of the water; mix the solutions, boil the mixture, and stir briskly for fifteen or twenty minutes. Collect the precipitate on a filter of calico or linen, wash it thoroughly with boiling water, and then dry it.

PLUMBI ACETAS.

Take of Pyroligneous acid (D. 1034), two pints;
Distilled water, one pint:
Litharge, fourteen ounces.

Mix the acid and water, add the litharge, dissolve it with the aid of a gentle heat, filter, concentrate the solution sufficiently for crystallization on cooling.

PLUMBI DIACETATIS SOLUTIO.

Take of Acetate of lead, six ounces and six drachms:
Litharge in fine powder, four ounces;
Water, a pint and a half.

Boil the salt and litharge with the water for half an hour, stirring occasionally. When the solution is cold add water, if necessary, to make up a pint and a half; and then filter. Preserve the solution in well-closed bottles.

PLUMBI IODIDUM.

Take of Iodide of Potassium and
Nitrate of Lead of each an ounce;
Water, a pint and a half;

Dissolve the salts separately, each in one-half of the water; add the solutions; collect the precipitate on a filter of linen or calico, and wash it with water. Boil the powder in three gallons of water acidulated with three fluidounces of pyroligneous acid. Let any undissolved matter subside, maintaining the temperature near the boiling point; and pour off the clear liquor, from which the iodide of lead will crystallize on cooling.

PLUMBI NITRAS.

Take of Litharge, four ounces and a half;
Diluted Nitric acid, a pint;

Dissolve the litharge to saturation with the aid of a gentle heat. Filter and set the liquid aside to crystallize. Concentrate the residual liquid to obtain more crystals.

POTASSÆ ACETAS.

Take of Pyroligneous acid, a pint and a-half;

Carbonate of potash (dry) seven ounces, or a sufficiency;

Add the carbonate gradually to the acid till complete neutralization is accomplished. Evaporate the solution over the vapour-bath till it is so concentrated as to form a concrete mass when cold. Allow it to cool and crystallize in a solid cake; which must be broken up and immediately put into well-closed bottles.

POTASSÆ AQUA EFFERVESCENS.

Take of Bicarbonate of potash, one drachm;
Distilled water, one pint;

Dissolve the salt in the water, and transmit through the solution carbonic acid gas under strong pressure.

POTASSAE BICARBONAS.

Take of Carbonate of Potash, six ounces;
Carbonate of Ammonia, three ounces and a half;

Triturate the Carbonate of Ammonia to a very fine powder; mix with it the carbonate of potash; triturate them thoroughly together, adding by degrees a very little water, till a smooth and uniform pulp be formed. Dry this gradually at a temperature not exceeding 140°, triturating occasionally towards the close; and continue the desiccation till a fine powder be obtained, entirely free of ammoniacal odour.

POTASSAE BISULPHAS.

Take of the residuum in the preparation of
Pure nitric acid, two pounds;
Sulphuric acid (commercial), seven fluidounces and one fluidrachm;
Boiling water, six pints;
Dissolve the salt in the water, add the acid, concentrate the solution, and set it aside to cool and form crystals.

POTASSAE CARBONAS PURUM.

Pure Carbonate of potash may be most readily obtained by heating crystallized Bicarbonate of potash to redness in a crucible, but more cheaply by dissolving Bitartrate of potash in thirty parts of boiling water, separating and washing the crystals which form on cooling, heating these in a loosely-covered crucible to redness so long as fumes are discharged, breaking down the mass, and roasting it in an open crucible for two hours, with occasional stirring, lixiviating the product with distilled water, filtering the solution thus obtained, evaporating the solution to dryness, granulating the salt towards the close by brisk agitation, and heating the granular salt nearly to redness. The product of either process must be kept in well-closed vessels.

POTASSAE SULPHAS.

Take of the residuum of the preparation of

Pure nitric acid, two pounds;
Boiling water, two gallons;
White marble in powder, a sufficiency;

Dissolve the salt in the water; add the marble gradually till effervescence ceases, and the solution is completely neutralized; filter the liquid, and evaporate it till a pellicle forms on its surface; then set it aside to cool and form crystals.

POTASSAE SULPHAS CUM SULPHURE.

Take of Nitrate of Potash, and
Sulphur, equal parts;

Mix them thoroughly; throw the mixture in small successive portions into a red-hot crucible; and when the deflagration is over, and the salt has cooled, reduce it to powder, and preserve it in well-closed bottles.

POTASSAE TARTRAS.

Take of Bitartrate of Potash, three pounds;
Carbonate of Potash, sixteen ounces, or a sufficiency;
Boiling water, six pints;

Dissolve the carbonate in the water, add the bitartrate till the liquor is neutralized, boil and filter. Concentrate the liquor till a pellicle form on its surface, and then set it aside to cool and crystallize. The residual liquor will yield more crystals by farther concentration and cooling.

POTASSAE ET SODAE TARTRAS.

Take of Bitartrate of Potash, sixteen ounces;
Carbonate of soda, twelve ounces;
Boiling water, four pints;

Proceed for this preparation exactly as for the tartrate of potash.

POTASSII IODIDUM.

Take of Iodine (dry), five ounces;
Fine iron-wire, three ounces;
Water, four pints;
Carbonate of Potash (dry), two ounces and six drachms.

With the water, iodine and iron-wire prepare the solution of iodide of iron as directed in p. 103. Add immediately, while it is hot, the carbonate of potash previously dissolved in a few ounces of water, stir carefully, filter the product, and wash the powder on the filter with a little water. Concentrate the liquor at a temperature short of ebullition, till a dry salt be obtained, which is to be purified from a little red oxide of iron and other impurities, by dissolving it in less than its own weight of boiling water, or still better by boiling it in twice its weight of rectified spirit, filtering the solution, and setting it aside to crystallize. More crystals will be obtained by concentrating and cooling the residual liquor.

POTASSII SULPHURETUM.

Take of Sulphur, one ounce;
Carbonate of potash, four ounces;
Triturate them well together, and heat them in a covered crucible till they form a uniform fused mass: which, when cold, is to be broken into fragments, and kept in well-closed vessels.

SODAE AQUA EFFERVESCENS.

Take of Bicarbonate of Soda, one drachm;
Water, one pint;
Dissolve the Bicarbonate in the water and saturate it with carbonic acid under strong pressure. Preserve the liquid in well-closed vessels.

SODAE BICARBONAS.

Fill with fragments of marble a glass jar, open at the bottom and tubulated at the top; close the bottom in such way as to keep in the marble without preventing the free passage of a fluid; connect the tubulature closely by a bent tube and corks with an empty bottle, and this in like manner with another bottle filled with one part of Carbonate of soda and two parts of Dried carbonate of soda well triturated together; and let the tube be long enough to reach the bottom of the bottle. Before closing the last cork closely, immerse the jar to the top in diluted

muriatic acid contained in any convenient vessel; when the whole apparatus is thus filled with carbonic acid gas, secure the last cork tightly; and let the action go on till next morning, or till gas is no longer absorbed by the salt. Remove the damp salt which is formed, and dry it, either in the air without heat, or at a temperature not above 120°.

SODAE CARBONAS SICCATUM.

Heat any convenient quantity of Carbonate of Soda in a shallow vessel till it is dry, then urge it with a red heat in a crucible, and reduce it to powder when cold.

SODAE MURIAS PURUM.

Take any convenient quantity of Muriate of Soda; dissolve it in boiling water; filter the solution: and boil it down over the fire, skimming off the crystals which form; wash the crystals quickly with cold water and dry them.

SODAE PHOSPHAS.

Take of Bones burnt to whiteness, ten pounds;
Sulphuric acid, two pints, and four fluidounces:
Carbonate of Soda, a sufficiency;
Pulverize the bones and mix them with the acid; add gradually six pints of water; digest for three days, replacing the water which

evaporates; add six pints of boiling water, and strain through strong linen: pass more boiling water through the mass on the filter till it comes away nearly tasteless. Let the impurities subside in the united liquors, pour off the clear fluid, and concentrate to six pints. Let the impurities again settle; and to the clear liquor, which is to be poured off and heated to ebullition, add carbonate of soda, previously dissolved in boiling water, until the acid is completely neutralized. Set the solution aside to cool and crystallize. More crystals will be obtained by successively evaporating, adding a little carbonate of soda till the liquid exerts a feeble alkaline reaction on litmus-paper, and then allowing it to cool. Preserve the crystals in well-closed vessels.

SODAE SULPHAS.

Take of the Salt which remains after preparing pure muriatic acid, two pounds;
Boiling-water, three pints:
White marble, in powder, a sufficiency;

Dissolve the salt in the water, add the marble so long as effervescence takes place, boil the liquid, and when neutral filter it; wash the insoluble matter with boiling-water, adding the water to the original liquid; concentrate till a pellicle begins to form, and then let the liquid cool and crystallize.

STANNI PULVIS.

Melt tin in an iron vessel; pour it into an earthen-ware mortar heated a little above the melting point of the metal; triturate briskly as the metal cools, ceasing as soon as a considerable proportion is pulverized; sift the product, and repeat the process with what remains in the sieve.

ZINCI OXIDUM.

Take of Sulphate of Zinc, twelve ounces;
Carbonate of Ammonia, six ounces;
Dissolve each in two pints of water; mix the solutions; collect the precipitate on a filter of linen or calico; wash it thoroughly; squeeze and dry it, and expose it for two hours to a red heat.

ZINCI SULPHAS.

This salt may be prepared either by dissolving fragments of zinc in diluted sulphuric acid till a neutral liquid be obtained, filtering the solution, and concentrating sufficiently for it to crystallize on cooling,—or by repeatedly dissolving and crystallizing the impure sulphate of zinc of commerce, until the product when dissolved in water does not yield a black precipitate with tincture of galls, and corresponds with the characters laid down for sulphate of zinc in the List of the Materia Medica.