

1. This so called Carbolic Acid No. 1 is really Coal-tar Creasote, or a mixture of the three or more homologous phenols of coal-tar, in varying proportions. It contains from 92 to 96 per cent. of these phenols, the remainder being the more volatile tar oils which are harmless. Cresol, or the so called Cresylic Acid, is generally in largest proportion, and Phenol, or the Crystallized Carbolic Acid in next largest proportion. This mixture is better than the crystallized carbolic acid for all known uses, whether internal or external, and may therefore take the place of the more costly substance with advantage. It is colorless when recently made, but changes, chiefly by the effect of light, through various tints of brownish red to nearly black, without becoming thick or tarry, and without material change in value or effect. All the useful portions of it are soluble in about twenty-five times its volume of water by active shaking together. The insoluble residue is impurity (tar oils).

2. This Impure Carbolic Acid No. 2, or Coal-tar Creasote with a larger proportion of tar oils, and less carefully distilled, is not proper for medicinal uses, but is quite good enough for profuse use as a disinfectant,—to make the disinfectant solutions,—and the solutions for removing the green mould which grows upon stone and brick work in damp and shaded places. It is also quite good enough for moistening the sand or sawdust used in the spittoons and chamber vessels, or which is daily swept over the floors of Hospitals, Almshouses, Jails, etc. This variety is always of a dark color, and more tarry in consistence and odor, and contains 20 to 80 per cent. of oils insoluble in water. It is put up to order in larger bottles, in carboys, or in barrels.

3. This Solution of Creasote, or of Impure Carbolic Acid, contains from 1 to 2 per cent. of the mixed phenols and is put up in quart packing bottles for profuse popular use. Each bottle bears a label with directions for some of its common uses as a disinfectant, and for its use in burns and scalds. It has been largely used by Boards of Health, and will be found cheap and serviceable. Although often clear and colorless when put up it soon becomes of a reddish tinge, and losing its transparency, deposits a scanty reddish sediment. Its value is however not impaired by these changes, and when filtered it is much nicer than before the deposit occurred. It may be easily made from the Carbolic Acid No. 1, or Coal-tar Creasote by shaking this well with water in the proportion of 2½ parts to the 100 of water, and filtering the solution through a double wet filter.

4. This Concentrated Solution of Phosphoric Acid is found to be more convenient for many purposes than the official diluted acid. It is just five times the strength of the official acid, and is therefore to be given in one-fifth the quantity. To make the official acid from this, one pound is diluted with four pounds of distilled water.

5. Nitrite of Amyl seems to have outlived the period of fashionable novelty, and to have proved really serviceable in a small class of cases, such as some forms of asthma, angina pectoris, syncope, etc. It is best administered by inhalation simply from a bottle, or, from five to ten drops from a piece of lint or a handkerchief. It almost instantly increases the action of the heart, and flushes the face by relaxing the coats of the arterioles, and in this way almost instantly relieves such attacks as spasmodic asthma, etc.

6. Citrate of Bismuth is believed to be a better salt for medicinal purposes than the Ammonio-Citrate. It is always used in solution, and the citrate should be dissolved at the time it is dispensed by the very careful addition of Water of Ammonia, drop by drop, carefully avoiding an excess of ammonia.

7. This Stronger Ether is especially prepared for use as an anæsthetic, with much care and pains: and the extreme volatility which particularly adapts it to the production of anæsthesia, makes it very difficult to secure for transportation, and very inflammable. Glass stoppers cannot be ground in quantity at any reasonable cost, which will secure it against loss by evaporation. Corks secure it best while standing at rest or during its application, but by the agitation of transportation, or by long standing, they become so shrunken and condensed as to admit a considerable loss at best, while the bottle sometimes reaches its destination apparently well secured, but entirely empty. Hence when ordered in bottles, either glass stoppered or corked, it must be entirely at the risk of the buyer. A much better way of putting up—and by far the best that has yet been devised—is in tin cans with a stud or cap of thick tin foil soldered over the mouth. The small disk of tin foil is easily cut out with a penknife when the ether is wanted for use, and a vial cork then secures it perfectly until it is all used. Each can bears a label with directions for opening and securing it. The quarter and half-pound cans are intended specially for physicians' use, and to save the loss and risk in dispensing. Each can contains enough for one or more administrations according to the skill with which it is used, and they will be found light, convenient and as safe as such inflammable liquids can be. All the express companies, and many transportation lines refuse to carry parcels marked as containing ether, and this soldering up in tin is the only way in which it should ever be transported without being marked. It will never be sent in bottles except by special order.

8. This Compound Extract of Cinchona is an efficient and valuable tonic, useful in those cases in which the fluid preparations of the Cinchonas are not well borne on account of their bitterness. For detailed formula and therapeutic applications see Amer. Jour. of Pharmacy for Nov. 1867, page 514.

9. This Extract of Ergot is almost entirely soluble in cold water, and it represents good Rye Ergot in the proportion of one grain of extract for six grains of Ergot. Fifty grains of the Extract dissolved in two hundred and fifty minims of water,—the solution filtered, and made up to three hundred minims by passing water through the filter to wash it and the residue upon it,—makes a solution which represents Ergot in the proportion of minim for grain, and is of the same strength as the Fluid Extract of Ergot, but is free from Alcohol or other irritant substance. This solution is as well adapted to the hypodermic use of Ergot as any that can be made, and is more trustworthy than the solutions of the so-called "Ergotin."

The medicinal applications of Ergot have been much extended of late years through the researches of Brown-Sequard, Langenbeck, Hildebrandt and others, and it is now administered to a new class of cases in much larger quantities and often for weeks and months together. While no preparation can better represent the drug than a well made fluid extract, yet by prolonged use this becomes very nauseous,—and sometimes so nauseous that it is desirable to have a solid extract which can be given in pill. Then, to relieve the stomach entirely for a time at least, it also becomes desirable to use the remedy hypodermically—or topically by a pledget applied to the os uteri in the treat-

ment of fibroid tumors. To accommodate the remedy to these various circumstances, this solid extract, sometimes called the Aqueous Extract of Ergot, is offered. Whether this solid extract will keep well for more than a few months cannot yet be determined, and it should, therefore, be bought in small quantities. For mode of preparation see Proceedings of Amer. Pharm. Assn. for 1874.

10. Powdered Extracts of Jalap and of Nux Vomica, with all the care that can be taken in their preparation, are liable to run together and become more or less solid in the bottles, and they are sold here subject to this change. It is usually only necessary to rub the lumps up in a mortar, as the extracts are wanted, to get them again into a coarse powder adapted to combination.

11. This Alcoholic Extract of Jalap is a better, more uniform and more economical preparation than the present official extract, and is, in great measure, independent of the quality of the Jalap from which it is made, since the alcoholic menstruum only takes the resinous portion whether that be more or less, whilst this resinous portion alone has any medicinal effect. This extract is just three times the strength of the official extract, and therefore should be used in one-third the quantity, whilst the price is but double that of the official extract.

12. These Fluid Extracts are not strictly official, because they are not made in accordance with the official processes. The object of the processes of the Pharmacopœia is to obtain preparations which represent the drugs from which they are made in the proportion of minim for grain. Recent investigations in pharmacy appear to show that these processes of the Pharmacopœia do not accomplish the object in the best or most economical way, and therefore a departure from them may be justifiable. And it is now believed that the preparations here offered are more in accordance with the object of the Pharmacopœia—that is, better represent the drugs in proportion of minim for grain—than any that can be made by the official processes. The method of reprecipitation by which they are made, is published in the Proceedings of the American Pharmaceutical Association for several successive years.

By this process, and perhaps also by other processes, it is now no longer difficult to make fluid extracts which fairly represent any drug in the proportion of minim for grain, entirely without the use of heat. But to obtain good drugs even at high prices, from which to prepare the fluid extracts becomes more and more difficult, while the quality of the drug used is always hidden in the extract or fluid extract.

13. The Bark of Rhamnus frangula or Buckthorn has long been used and highly esteemed by many, as a valuable mild cathartic or aperient well adapted to some cases of habitual constipation. It has been generally used in decoction, and those who know it well by experience have hitherto not been satisfied with other modes of preparation. It may, however, be very conveniently used by chewing small portions of the bark three or four times a day; and now for the first time, a fluid extract of it is here offered, which it is believed may prove a very useful preparation. The Bark, coarsely powdered, is offered in the list of Powders, for making the decoction for those to whom the fluid extract may not be acceptable.

14. The very serviceable Compound Tincture of Cardamom is considered by many to be too dilute and bulky for convenient admixture with fluid extracts, etc., as a corrigent; and too largely composed of alcohol for use as a carminative, or as a stomachic in those forms of dyspepsia in which it is appropriately used. The fluid extract here offered is intended to remedy these supposed defects. It is made from the official aromatics in the official proportions, but the cochineal is omitted as worse than useless. The honey is also omitted. It represents the compound powder of the aromatics in the proportion of about a minim for each grain, and is about twenty-five times stronger than the official Tincture.

15. This Compound Fluid Extract of Yellow Cipehona, or Calisaya Bark, is made from good Calisaya Bark and the official Aromatic Powder. Each minim represents about one grain of good Calisaya Bark, and one-fourth of a grain of Aromatic Powder. The dose, as a tonic, is about 10 to 15 minims, and it is best given in a little wine just before meals (see Amer. Journ. of Pharm. for 1867, p. 523 et seq.)

16. This Compound Fluid Extract of Red Cinchona contains the same ingredients in the same relative proportion as the official Compound Tincture of Cinchona, or Huxham's Tincture, of the U. S. P. of 1860,—namely, Red Cinchona Bark, Bitter Orange Peel, Serpentaria and Saffron; and it is just ten times the strength of the Compound Tincture. The formula for it will be found in the Amer. Journ. of Pharm. for 1867, p. 518, only that the strength is just doubled.

17. This Compound Fluid Extract of Gentian is simply a concentrated form of the official Compound Tincture of Gentian, being made from the same ingredients in the same proportion and with the same menstruum; and it is offered for reasons similar to those given in regard to the Compound Fluid Extract of Cardamom. This Compound Fluid Extract of Gentian represents the official ingredients in the proportion of about a minim for each grain of the compound powder, and is rather more than nine times the strength of the official Compound Tincture of Gentian.

18. The general drift of experience seems to show that the Southern Prickly Ash—Xanthoxylum Carolinianum—is preferable, for similar uses, to the official Prickly Ash—Xanthoxylum fraxineum,—and therefore fluid extracts of both are here offered.

19. This Compound Fluid Extract of Senna is merely a mixture of the senna with efficient corrigents in a proportion large enough to correct the gripping tendency of the senna. The compound powder consists of seventeen parts of good Alexandria Senna, two parts Fennel, and one part Ginger; and the fluid extract represents this compound powder in proportion of about a minim for each grain.

20. This Fluid Extract of Spigelia and Senna is intended to represent the official fluid extract of the same name, of the U. S. P., of 1860, but is made from the dry fruit of Anise and Caraway instead of the Oils, and contains but one-eighth of the proportion of Carbonate of Potassa, and contains no sugar. It represents the compound powder of Spigelia and Senna in the proportion of about a minim for each grain, and the aromatics in addition to this strength.

21. Oleates. In the *London Lancet* for May 25, 1872, p. 709, Mr. John Marshall, F. R. S., Professor of Surgery in University College, London, published a paper on the treatment of persistent inflammations by the local application of solutions of Oxide of Mercury and of Morphia, in Oleic Acid. Good abstracts of this paper may be found in

the last edition (the third American) of Ringer's Handbook of Therapeutics, p. 198, and in Braithwaite's Retrospect for January, 1873, p. 102. The high standing of the author of this paper gives much weight to his statements, and upon a limited trial of his treatment, some surgeons in this country derived benefit in some cases. If the plan be found to be generally applicable and effective, it will be necessary to use it with much care, in order to avoid hurtful mercurialization. The facility and rapidity with which these oleates are absorbed from healthy skin is something quite new in therapeutics and deserving of research, for it seems to initiate a method which may be called Dermic Medication, which, if capable of being successfully extended, will be an important addition to the applications of the *materia medica*. The Oleate of Mercury here offered contains about six per cent. of the Yellow Oxide of Mercury, and is probably strong enough for any ordinary use. An Oleate of Mercury containing ten per cent. of Oxide is also supplied upon special order. It is of the consistence of a thin jelly, when cold, but quite fluid when warmed. The Oleate of Mercury and Morphia contains about six per cent. of the Yellow Oxide of Mercury, and two per cent. of Morphia. The Oleate of Morphia contains about five per cent. of Morphia. In addition to these preparations proposed by Mr. Marshall, Oleates of Atropia and Aconitia are offered, and other Oleates are in course of investigation and preparation. All these Oleates have the strength and composition stated on the label. Oleic Acid and Yellow Oxide of Mercury are also offered for the use of those who prefer to prepare the Oleates for themselves.

22. Compound Solution of Opium. During the past ten years the use of this preparation has so steadily increased, and the testimony in regard to its utility is so favorable, that it has been considered necessary to revise the formula in order to improve it and avoid some disadvantages which have been developed by experience. It is still a deperated solution of the useful alkaloids of opium, made by assay, and therefore uniform in strength, irrespective of the good or bad quality of the opium from which it is made; but now instead of the Compound Spirit of Ether, or Hoffmann's Anodyne, which has proved objectionable for some uses, it contains in each thirty minims, one minim of Purified Chloroform, and two minims of Acetic Ether; the strength and average dose of twenty to thirty drops, remaining unchanged. This revised formula has been tried in practice and appears to be at least equal to the old preparation in its general effects; and in being well borne by some who cannot take ordinary opiates or the salts of morphia, whilst it is free from the smell and taste of ether, which were often disagreeable, and sometimes nauseating. The advantages expected from the old formula as published in detail in the "Amer. Journ. of Pharmacy" for March, 1860, have been realized to a useful degree; and as it is now confidently expected that the present change will be an improvement, a paper giving a full history of the preparation, and the formula and process for it in minute detail, has been prepared and published in the "Amer. Journ. of Pharmacy" for January, 1870. As made by the new formula it bears a different lithographed label from the old and has conspicuously upon this label the words "Revised formula of 1870." As two kinds cannot be kept without risk of confusion, that by the older formula is now no longer sold.

23. This manufacturer neither makes nor deals in sugar-coated pills, nor in pills covered or coated with any other substance, and the pills of this list are introduced to supply the demands of those who desire to have them without covering. The aim of physicians is that the pills they give should dissolve promptly in the upper part of the alimentary canal, and an attempt is made to secure this result in the pills of this list by avoiding all coating and by the introduction into the various pill masses of a sufficient proportion of glycerin to keep the pills soft.

24. Podophyllum Pills, or May-Apple Pills. This pill appears now to have been sufficiently tried to warrant its introduction here. Each pill contains one-fourth of a grain of Resin of Podophyllum, one-eighth of a grain of Alcoholic Extract of Belladonna, half a grain of Powdered Capsicum, one grain of Powdered Sugar of Milk, a quarter of a grain of Powdered Acacia, with Glycerin and Syrup enough to form a soluble pill which will not become hard. The formula and process for making them is published in detail, and their prominent therapeutic applications given in the Amer. Journ. of Pharmacy for January, 1868, at page 11. They are rarely, if ever, well used for cathartic purposes, but are best, if not only adapted to use as an aperient and alterative medicine. They are particularly slow but sure in operation, and one pill every night, or every alternate night, and then at longer intervals, will often correct a habit of constipation.

25. This Compound Pill of Scammony is the so-called "Triplex Pill" of the late Dr. John W. Francis of New York. Each pill contains one and a fifth grains each of Scammony, Sootrine Aloes and Mercurial Pill Mass, one-twentieth of a minim of Croton Oil, nearly one-fourth of a minim of Oil of Caraway and a little Tincture of Aloes and Myrrh. For formula and process see Proceedings Amer. Pharm. Asso., for 1872, p. 222.

26. POWDERS. When drugs are powdered or ground, it is always difficult and often impossible to judge of their quality, or to judge of the knowledge and skill given to the important process of powdering. A bad drug by means of a little mixing and manipulation, may be made to yield a very handsome powder, while a good drug, by unskillful heating and powdering, may have its medicinal virtues injured or even destroyed. Few processes are more important to the *materia medica* than that of drug powdering, and as a general rule none are in less competent hands. Physicians and Pharmacists are never so safe as when they powder their drugs for themselves, and the labor and difficulty of doing this is very much overrated. To supply those who will not adopt this plan, a list of the more important powders is offered here with the assurance that the drugs are selected with care and attention—the powdering done by good apparatus and with skill,—and the putting up in glass or tin, while the powders are dry and fresh, is in due respect for the character of important medicines, and the circumstance that they must often be long kept. The powders are also put up in glass, when desired, each bottle containing one pound being charged at 16 cents.

27. The Powdered Opium here offered for sale is always assayed, and the morphia strength of it within one half of one per cent. is given upon a small label on each parcel.

The average aimed at is 13.5 per cent. and none is offered which contains less than 12.5 per cent. of morphia. And by morphia is meant not "Crude Morphia," nor morphia in any combination or admixture, but the true alkaloid only. It should be remembered that the proportion of morphia is the chief indication of value in Opium; and that if a given powdered Opium costs \$10.00 per pound and contains 10 per cent. of morphia that this is equal to about \$1.00 for each per cent. of morphia, and that the percentage value increases with the cost. Therefore if powdered Opium containing 10 per cent. of morphia, costs \$10.00, a powder containing 13 per cent. is worth \$13.00, and so on.

All the Opium preparations of this list are made from powdered Opium of this kind.

28. After the Russian Government abandoned their inspection and control of Rhubarb and their annual sales of their surplus, the old Russian or Turkey Rhubarb soon disappeared from the markets, and it has not been accessible for some years, although Rhubarb at extravagant prices is still sold under the old name. The Rhubarb here quoted is intended to supply this much-needed grade or quality. This is Chinese or East India Rhubarb, but is selected with care every piece being examined, and the imperfect and bad portions rejected. Thus prepared, it is fully equal to the Russian. The powder and fluid extracts are made from Rhubarb of the same quality, though that used for the fluid extract is the cuttings and borings, and less slightly portions.

29. Crystallized Pyrophosphate of Soda has been recently more used in medicine, for many purposes: but is applied chiefly perhaps to break up that succession of furuncles from which many persons suffer so frequently. Given in teaspoonful doses, dissolved in half a tumblerful or more of water at the time of taking, and repeated two or three times a day it is often effective in the treatment of boils, carbuncles, etc.

30. This Compound Tincture of Cinchona, or Huxham's Tincture, differs from the official tincture of the U. S. P. of 1870, in containing Saffron in the proportion directed by the U. S. P. of 1860.

31. Compound Tincture of Ipecacuanha, or a fluid form of "Dover's Powder." Some years ago it was suggested that a mixture of compound solution of opium,—or of Deodorized Tincture of Opium, with Fluid Extract of Ipecacuanha in proper official proportions would form a good and convenient substitute for the Compound Powder of Ipecacuanha or Dover's Powder. This suggestion has been successfully adopted by some physicians, and now that most physicians carry pocket cases of medicines for immediate use at the bedside, it is believed that such a preparation is needed. It is prepared by concentrating the Deodorized Tincture of Opium on a water bath, replacing the proportion of Alcohol lost, and mixing with this the Fluid Extract of Ipecacuanha in such proportion that each ten minims of the mixture represents one grain of Opium and one grain of Ipecacuanha; or, so that the mixture represents Dover's Powder in the proportion of minim for grain.

32. This is the official Deodorized Tincture of Opium, but it is now deperated and made of uniform known strength by actual assay. It is prepared by the same process and is of the same opium or morphia strength as the Compound Solution of Opium (see note 21), and may be substituted for that preparation when the Chloroform or Acetic Ether are either or both objectionable; or, by the addition of Compound Spirit of Ether may be made to resemble the old Compound Solution of Opium. It is simply a deodorized and deperated solution of opium, containing the official proportion of alcohol, and is considered to be a material improvement upon the official formula.

33. All the so-called Retort Stands, which are easily accessible are flimsy, unsubstantial, and much too light for Pharmaceutical uses. Therefore, one has been contrived which remedies these defects, and is much more generally applicable to the processes of the chemist and pharmacist. As the upright supporting rod is near the middle of the stand it can be used for two or more processes at the same time. Each ring may be adjusted to support any vessel of ordinary size.

34. This Burette Stand is convenient for holding a full set of Mohr's Burettes and Pipettes, always ready for use.

35. This Condenser is a modification of that of Liebig, which has now been used for some years. It is held upright in any proper stand, and takes up much less room for a given capacity than Liebig's. It is entirely of rubber, metal and glass, and the parts, when broken are easily re-supplied. It has the capacity of condensing about a pint of water per hour.

36. In the Proceedings of the Amer. Pharm. Asso. for 1872, p. 182, will be found a description of a new form of glass percolator. This percolator has attracted some attention, but has been supplied in a very imperfect condition by the apparatus dealers. It is therefore offered here for any who may choose to try it. When packed, the box and packing will be charged at 50 cents.

37. In the transactions of the Med. Soc. of the State of New York, page 211, and in the New York Medical Journal for April, 1871, an apparatus for administering Ether for anæsthetic purposes is described. This apparatus is used to some extent, and is not well made by the apparatus dealers. It is therefore offered here in a nickel plated tin case, each case containing with the apparatus a quarter pound tin can of ether.

38. This is a useful and convenient modification of Bunsen's Pinchcock for controlling the discharge of liquids through india rubber tubes. It is of lackered brass and has but one milled head screw, by the use of which the flow can be stopped entirely, or be set to run at any desired rate from slow dropping to the full capacity of the tube. Three sizes are offered, the two smaller being most generally useful.

39. In the progress of therapeutic knowledge, physicians generally, even in large cities, are beginning to acknowledge the advantages and saving of time in the treatment of acute conditions or stages of disease, by having the means to carry and dispense a few of their active medicines, which are needed at the bedside and in emergencies; and the pocket cases for medicines accessible to them seemed capable of improvement. Therefore, a case is here offered, containing a minim pipette and a sheet of labels, which, it is hoped, may be an improvement. Hereafter it will be described more in detail.