Dispensing Notes.

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As a continuation of the papers on this subject already contributed by me at various times to the Liverpool Pharmaceutical Students' Society, the following notes extracted from marginal annotations in the prescription register made during the last year may be of interest :

MIXTURES.

1. ℞ Liq. Ferri Perchlor..... ℥iii.
Acid Hydrobrom. Dil..... ℥iii.
Quininæ Sulphatis..... gr. xii.
Tinct. Gelsemii..... ℥ss.
Sp. Chlorof..... ℥ii.
Syrupi Aurantii ..... ℥ii.
Aquæ .....ad ℥vi.
M. ft. mist.

On mixing the acid and the iron solution a deep red color was produced, which, however, disappeared on further dilution. This was judged to be due to ferric bromide, as when shaken up with chloroform no indication of free bromide was afforded.

2. ℞ Quininæ Sulphatis..... gr. xx.
Acid. Sulph. Dil..... ℥i.
Tinct. Chlorof. Co ..... ℥ii.
Syrupi Limonis..... ℥vi.
Aquæ.....ad ℥vi.
Ft. mist.

This mixture invariably has a muddy appearance, and sometimes contains quite a perceptible scum of reddish thread-like particles after standing. The cause of this seems to be the tannic and other astringent bodies from the tincture of cardamons in the compound tincture of chloroform partially precipitating the quinine. The only way to make it look elegant is to filter it, for the small amount of suspended matter removed, be it quinine tannate or not, need not be considered.

3. ℞ Potass. Bromid..... ℥v. gr. 40.
Potass. Iodidi..... ℥i. gr. 40.
Tinct. Cannabis Indic..... ♏ 160.
Syrupi Aurantii ..... ℥i.
Mucilaginis Tragac.....ad ℥viii.
M. ℥ii. for a dose twice daily.

The quantity of mucilage in this is somewhat abnormal, but, as a concentrated mixture is intended, it was dispensed as written.

4. ℞ Tr. Benzoin. Co..... ♏ 320
Oxymellis Scillæ..... ℥i.
Vini, Ipecac.
Tinct. Tolutani..... aa ♏ 80
Aquæ Destill... ...ad ℥ viii.
M.

The yolk of an egg beaten up with ℥ss. of water was put into the bottle, the tinctures poured in well shaken, and then the rest of the water, with the oxymel last of all.

5. ℞ Bismuthi Salicylatis ..... ℥i.
Liq. Bismuthi..... ℥ii.
Mucilaginis Acaciæ ..... ℥i.
Sp. Chlorof ..... ℥i.
Aquæ.....ad ℥vi.
M.

A doctor in the habit of dispensing his own medicines asked me how it was that this mixture was so much more easily made smooth when it contained liq. bismuthi than when the salicylate alone was used. Thinking that the ammonium citrate in the liq. bismuthi was the secret, I made experiments which proved that bismuth salicylate was soluble in ammonium citrate, and that it is quite possible to make a liq. bismuthi salicylatis on similar lines to the liq. bismuthi amm. cit.

6. ℞ Sodii Bromidi ..... gr. 80.
Caffeinæ Hydrobrom... gr. xx.
Sp. Ammon. Co..... ℥ss.
Aquæ.....ad ℥viii.

The caffeine dissolved in the water, though the sal volatile throws it out of strong solutions. The spirit in the sp. ammon. co. doubtless assists this solubility of caffeine, which in water requires 80 parts to form a solution.

7. ℞ Liq. Bismuthi..... ℥ii.
Sodii Hyposulphitis..... ℥ii.
Tinct. Nucis Vomicæ ..... ℥i.
Infusi Calumbæ..... .....ad ℥vi.
Fiat mistura.

On mixing no immediate change was observed, but bearing in mind what takes place in a similar solution for a totally different purpose, the mixture was kept under observation. At the end of a day a brownish-yellow precipitate had fallen, and this gradually became darker and darker day by day until at the end of a month it was almost black. The precipitate is an oxy-sulphide of bismuth from the interaction of the thiosulphate of sodium and the bismuth citrate, assisted by the organic matters present and by the action of light. It is nothing more nor less than the bismuth hair dye, and will dye animal fibre or wool from a light brown to black, according to the time taken in the process and the amount of light to which the wool is exposed. A similar mixture to this is fully discussed in the "Art of Dispensing."

8. ℞ Salol..... .... ℥i.
Nepenthe..... ℥ii.
Mucilaginis Tragac..... ..... *q.s.*
Aquam.....ad ℥vi.
M. ft. mistura.

Salol is by no means easy to reduce to an impalpable powder by simple trituration, because of its tendency to adhere to the sides of the mortar and the pestle if of porcelain. For it and for thymol, sulphonal, and other insoluble bodies which exhibit this same tendency I find the following method work out well where it is desired to give the drug in mixture form :

Dissolve the salol in methylated ether and pour this solution on compound powder of tragacanth and lump sugar, grinding hard until the ether has evaporated. Then transfer to a hot mortar and continue the trituration until all smell of ether is removed. To this powder add water by degrees so as to form an emulsion. Having numerous salol mixtures to make similar to the above, we keep a compound salol powder ready containing 1 part of salol in 3 made with salol, 60.

Gum Tragacanth, powdered. 15
Gum Acacia, powdered 15
Lump Sugar..... ... 90

made with ether as already described.

9. ℞ Piperazinæ..... ℥i.
Liq. Strychninæ ..... ♏ 50.
Syrupi Aurantii..... .... ℥vi.
Aquæ Chloroformi.....ad ℥vi.
Fiat mist.

As piperazine is alkaline, and would therefore throw out the strychnine from the liquor, mucilage of acacia was added with a view of preventing separation, though the amount of chloroform water present makes it very improbable that the alkaloid would come out, seeing that chloroform is one of the best solvents for strychnine.

10. ℞ Bismuthi Salicylatis..... gr. 80.
Pulv. Cretæ c. Opio, Lond.
Pharm..... ℥ii.
Mucilaginis Acaciæ..... ℥iv.
Sp. Chlorof..... .... ℥ii.
Aquæ ....ad ℥viii.
M. fiat mistura

The salicylate being liable to float to the surface, owing to it containing a good deal of air locked up in its particles, during powdering, I find it in this case best to rub it up with the compound chalk powder, and make into a stiff paste with the spirits of chloroform, which, thoroughly saturating both the powders, causes them to mix better on the subsequent addition of the water, which must be done little by little, the mucilage being added when about 2 ounces of water have been used.

11. ℞ Liq. Hydrarg. Perchlor..... ℥i.
Liq. Strychninæ..... ♏ xxx.
Aquæ Distillatæ .....ad ℥vi.
Fiat mist.

There was no visible precipitate when the liquors, each previously diluted with 3 ozs. of water, were mixed together, but under the circumstances, for safety a new mixture was made up as before, with the addition of acacia mucilage, ½ oz.

OINTMENTS.

12. ℞ Atropinæ..... gr. i.
Cocainæ..... gr. i.
Vasilini Albi..... ℥ii.
Dissolve with gentle heat and then add, when cool, acid boracici, gr. viiss.