

portant to find whether there was anything left in the bark that could be extracted by glycerine, and, therefore poured water into the percolator until upwards of eight pints had passed through, and the percolated liquid was colourless and tasteless. The apparently exhausted bark was then placed in an evaporating dish, and four fl. ozs. of glycerine stirred in. The mixture was heated slightly, and allowed to stand a day or two, again transferred to the percolator, and water passed through until about a pint of turbid brownish liquid was obtained. This was evaporated to four fl. ozs., the result being a dark brown syrupy fluid, having, of course, the peculiar taste of glycerine, but with very slight bitterness or astringency.

Several experiments were then made by the direct action of glycerine upon bark. Percolation was tried, but the process was so slow as to be practically useless, and finding that quinia and its sulphate were soluble in warm glycerine, and were not precipitated from solution by the addition of water, the following was adopted as the best :—

Four ozs. of yellow bark were mixed with eight fluid ozs. of glycerine, heated for a short time over a water bath, and allowed to stand till cold : water was then added in successive portions, and strained out, until there appeared no extractive left. The whole was then evaporated to eight fluid ozs. the original bulk of the glycerine. This liquid carefully made, appears to contain in each fluid ounce the whole extractive matter of half an ounce of bark, and might, I think, be appropriately termed *glycerinum cinchonæ*. Of its medical value it is not for me to offer an opinion, but two or three medical men to whom it has been mentioned think it likely to be very useful.

In conclusion, I must apologise for a very imperfect essay. I had intended to do much more, but have been prevented. However, the solubility of quinine in warm glycerine, and the extraordinary power possessed by the latter of dissolving the extractive principles of cinchona, are, I hope, facts of sufficient pharmaceutical importance to justify my little paper. I hope now some one more able will take up the subject, but shall try to return to it myself, and report progress at our next meeting.

Professor Redwood regarded this as a useful and practical paper.

Mr. Cleaver asked if the glycerine extract gave any precipitate when mixed with water.

Mr. Martindale referred to the formula in the United States Pharmacopœia, which he said somewhat resembled this preparation. The strength of that was 16 fluid ounces, equal to 1 lb of the bark. He had found that product liable to gelatinise. It mixed tolerably well with water.

Mr. Ekin asked what particular bark had been used. He supposed the gelatinisation referred to by Mr. Martindale would be due to quinovic acid.

Mr. Andrews said the preparation did precipitate when mixed