with water, but to a very slight extent, not nearly so much as the Pharmacopœia liquid extract. The bark he had used was fully up to the Pharmacopœia standard. After extraction by glycerine there was a trace of bitterness left in the bark, but it was very slight.

ALCOHOLIC SOLUTION OF SHELLAC.*

BY A. PELTZ.

The production of a clear alcoholic solution of shellac has been the subject of numerous experiments, but hitherto none has turned out satisfactory except slow filtration. As is known, by digestion of one part of shellac with six or seven parts of 70 per cent. alcohol, a solution is obtained which when warm is almost clear, but upon cooling becomes turbid and is only partially clear after standing a week. The plan of pouring sufficient alcohol over coarsely powdered shellac to form a thin paste, yields upon the addition of more alcohol after the lapse of eight or ten hours a liquor that does not deposit any more, but which is not clear. Another method suggested, of boiling the alcoholic shellac solution with animal charcoal gives a clearer liquid, but there is always loss through absorbtion by the animal charcoal.

The object sought by the author was to obtain a clear alcoholic solution in a short time without much loss. Previous communications upon the substance occurring in shellac to the extent of five per cent., which renders its alcoholic solutions turbid, and is described by some authors as wax and by others as a fat acid, suggested an attempt to effect its removal before dissolving the shellac. The shellac therefore was boiled with water, from one to five per cent. of soda or ammonia being added, but without satisfactory result, a somewhat larger addition of the alkali caused the solution of the shellac.

The author next prepared a solution with one part of shellac and six parts of 90 per cent. alcohol at the ordinary temperature, which was effected with frequent shaking in ten or twelve hours. To this he added carbonate of magnesia to about half the weight of the shellac used and heated the mixture at 60° C. The solution so obtained cleared more rapidly than a solution to which magnesia had not been added and filtered in less time; but it did not supply what was sought. When powdered chalk was substituted for magnesia, the solution after standing some hours became three-fourths clear, while the lower turbid portion could be rapidly filtered. It only required a little alcohol to wash the filter, and a clear alcoholic

*Pharmaceutische Zeitschrift f. Russland, in Pharm. Jour. & Trans.