

oughly when a brick red color will appear. Ten drops to 2 cc. of the mixture of urine and reagent are then removed to another tube and 20 cc. of strong hydrochloric acid and 4 drops ferric chloride solution added, together with 3 cc. of chloroform. The corked test tube is then slowly tilted from side to side so as not to emulsify the chloroform. At the end of a minute, if diacetic acid is present, the chloroform will assume a violet color. In normal urines the color will be either a yellow or pale red. Salicylic acid and similar drugs do not interfere with the reaction.

In testing for bile with tincture iodine, the test to be successful must be made with a tincture of iodine diluted with alcohol until the color is a dark yellow which is applied by using a dropper to form a layer of reagent over the urine. A green ring indicates a positive reaction. Antipyrine yields the same reaction.

A better test is to take some of the suspected sample, add enough U. S. P. magnesia mixture to produce a precipitate and filter. When the material has filtered through, place the paper containing the precipitate on a white porcelain surface and add to it a drop of yellow nitric acid. A green color indicates bile.

These few notes like those published before are not intended as a course of instruction in uranalysis, but simply to point out some sources of error in the chemical examination of urine.

DISCUSSION.

Otto Raubenheimer, of Brooklyn, said he wished to call attention to two points in connection with this paper. One was, that Benedict's solution was not at all a new one. An attempt had been made to introduce Benedict's solution in the U. S. P., but it was declined with thanks.

R. H. Needham, of Ft. Worth, Tex., said that a good many authorities claimed that Haines' solution would keep indefinitely. His experience had not shown this to be true. Benedict's solution he had used for quite a while, and his experience had been that it kept well for two years. The last he had was four ounces in a five-pint bottle, which seemed to be just as sensitive at the end of that time as at the time he made it up.

CAMPHORATED OIL IN AMPOULES, SIMPLE APPARATUS FOR FILLING.

J. LEON LASCOFF, NEW YORK.

In 1909 Mr. Caswell A. Mayo read a very interesting paper before the New York Branch of the Association entitled: "Ampoules and Their Use in the Preservation of Sterile Solutions," in which he explained how easily the dispensing pharmacist can put up any sterile solution in ampoule form.

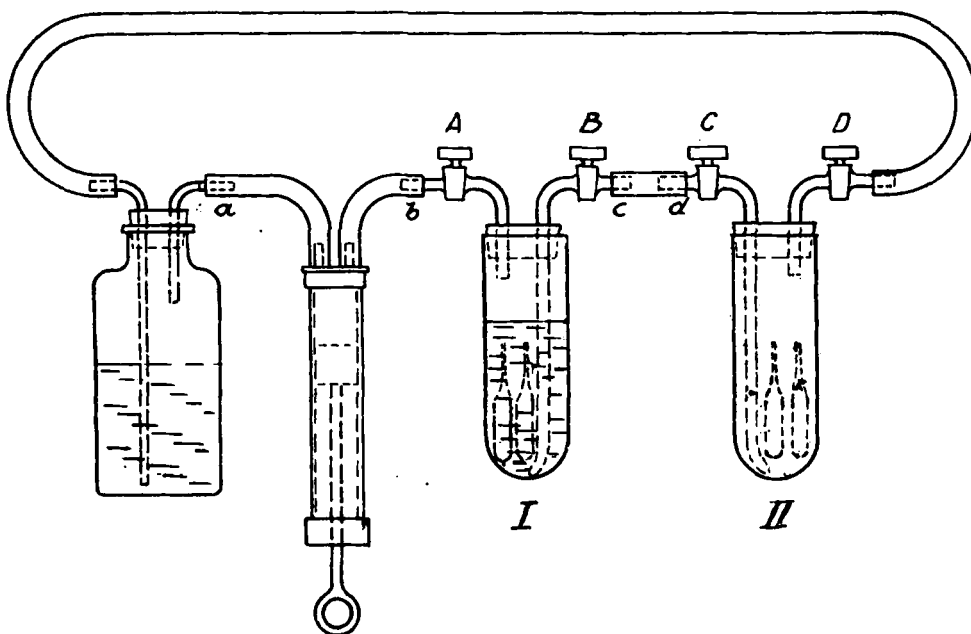
I was very much interested in this subject, and began experimenting, with the result that I met with marked success.

My object in selecting the subject of Camphorated Oil Ampoules, is that during my experience as a pharmacist I have had more calls for Camphorated Oil Ampoules than any other kind. In former years, when physicians prescribed camphorated oil for hypodermic use they had to be prepared extemporaneously,

which took a great deal of time and they were not always sterile. As such solutions are needed in emergency cases, the idea of making ampoules in sterilized form is far superior to the old way of preparing fresh ones every time they are required.

At the time my experiments began I had great difficulty in obtaining the empty ampoules, as they were not yet stocked generally in the United States. If the dispenser is only ordinarily skilled in glass blowing, he can make them himself from test tubes.

The chief consideration which I have had in mind was to devise a simple, non-expensive and practical method of filling glass ampoules with sterile camphorated oil. Sterile, because they are used by the physician in the hypodermic syringe and this had to be done without the use of too much heat as the camphor volatil-



APPARATUS FOR FILLING AMPOULES DEVISED BY J. LEON LASCOFF, NEW YORK CITY.

ized, so I devised the apparatus shown in the illustration. A single apparatus for making one dozen only may be used, but in cases where more than that number is required, a double apparatus may be used as shown in the diagram. It works very satisfactorily and in all cases the ampoules prove to be sterile, as I have in my possession the case reports in which they were dispensed. No infection has resulted from their use, either on the skin or in the deeper tissues. That the strength of the camphor was uniformly up to the standard has been testified to by the physician who prescribed and used them.

Having covered the technical side of the question, let us now turn to the commercial. We frequently see the statement made in print that professional pharmacy does not pay; that there is no money in prescription work. Let us take this particular preparation, ampoules of camphorated oil, and see whether they

have paid me or not. The permanent investment for the small outfit consists of the following:

SMALL OUTFIT.

1 Electric hot plate.....	\$5.00
1 Sterilizing oven, costing.....	1.98
(Cake box, 80c; insulating cover, 75c.)	
(Fixing interior shelf, 25c.)	
1 Test tube, 4 x 2.....	.50
1 Ginger ale holder.....	.25
1 Perforated rubber stopper.....	.35
2 Bent glass tubes with ground glass stop cocks.....	2.40
Rubber tubing20
1 Metal syringe	2.25
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Total permanent investment.....	\$12.93

LARGE OUTFIT.

1 Wash bottle	\$0.25
2 Bent glass tubes.....	.20
1 Rubber stopper15
2 Glass cups, 2 x 5.....	1.00
2 Rubber stoppers, No. 11.....	.70
4 Glass tubes with stop-cocks.....	4.40
Rubber tubing40
Electric heater	5.00
Sterilizer	1.98
2 Ginger ale holders.....	.50
Air pumps	2.50
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	\$17.08

By using a Bunsen burner for sterilization instead of an electric stove and by using one instead of two glass stop-cocks, this can be cut almost a half, making the permanent investment \$5.53.

The cost of the ingredients for a 2 cc. ampoule of camphorated oil, and the ampoules amount to a little less than 15 cents a dozen. I had one prescription for six ampoules for which I charged 90 cents. This was refilled forty-one times, making the receipts \$36.90 from this one prescription alone. Another prescription called for twelve ampoules. For this I charged \$1.25. It was called for 150 times, making \$187.50 received from this prescription. The two prescriptions therefore brought in a total of \$224.40. From this deduct permanent investment of \$17.08 and the cost of the materials for 170-1/2 dozen at 15 cents a dozen, \$12.75, and we have a net profit of $\$224.40 - \$29.83 = \$194.57$, plus the apparatus. On an average the dispensing of the prescriptions required not more than 15 minutes of actual working time or a total of $191 \times 15 = 47\text{-}3/5$ hours. Allowing a dollar an hour as fair compensation for prescription work this leaves $\$194.57 - \$47.60 = \$146.97$ profit above the cost of investment, material and labor. I do not think that commercial pharmacy can make any such showing on any of its investments.

DISCUSSION.

C. A. Mayo, of New York, said that he had been very much interested in the subject of ampoules since it was first brought up before the New York Branch, and had presented quite a complete paper before the Association at Los Angeles, at the 1909 meeting. It had afforded him great pleasure to observe Mr. Lascoff's apparatus in his store. Not only did he see him

fill one of these prescriptions, but he had brought out the account, and he had figured out himself how much money he had gotten on two prescriptions. He had been impressed with the thought that this was one of the best answers to the statement that professional pharmacy did not pay—that on these two prescriptions alone a profit of over \$100 had been made. Mr. Mayo said it had afforded him great pleasure to testify to this particular phase of the matter. This work had been done in a rather small store, in a remodeled residence on a corner. The prescription room only measured some 12 by 15 feet, had no elaborate marble-tops in it, but was one of the most complete and neatest and cleanest places he had been in for a long time; and it had done his heart good to see a “real pharmacist.” It was not only important that the pharmacist should make money, but he should know whether he was making it or not, and how he made it, if he did make it. The system of accounting in this case was so accurate and readily comprehended that one could find out in five minutes how this man had made his money.

H. A. B. Dunning, of Baltimore, said that a very simple process in use in his establishment for making camphorated ampoules was to simply fill the ampoule by the use of a subcutaneous syringe, seal the ampoules and place in an Arnold Sterilizer, sterilizing the ampoules and contents at the same time. Being sealed, no camphor could be lost. His apparatus only cost 75 cents.

LOTIO ALBA.

OTTO RAUBENHEIMER, PH. G., BROOKLYN, N. Y.

The prescription calls for Lotio Alba. In this age of white dress, white flag, white cross, white linen, white plague, white slavery and whitewashing, undoubtedly White Lotion, or White Wash, will be of interest to the pharmacist. However, he is at a loss as he is unable to find a formula for this preparation, even if he is equipped with a good sized pharmaceutical library. No pharmacopœia, no National Formulary, no other formulary, and no dispensatory, *the* book which is looked upon to give all kinds of pharmaceutical information, mentions Lotio Alba. Even such authorities as Remington, Caspari, Arny, Fenner, Hager, Dietrich, Buchheister, Hell, Dorvault, Orosi, MacEwan, Martindale and others, and such standard works as the British Pharmaceutical Codex, and the Pharmaceutical Journal Formulary do not mention Lotio Alba.

Upon getting in touch with the physician the pharmacist is informed that this preparation is used largely in hospital and dispensary practice. If the pharmacist is fortunate enough to possess a hospital formulary, as for instance, that of Bellevue and Allied Hospitals in New York City, then he at last finds a formula for Lotio Alba, or White Wash, which is composed of zinc oxide, solution of lead subacetate, glycerin and lime water. This however, is not the preparation which the physician intends to be used against acne, pimples, blackheads or other skin affections. Lotio Alba is composed of zinc sulphate, sulphurated potassa and water, or rose water.

The writer, as chairman of the Committee on the A. Ph. A. Recipe Book, is well aware of the fact how difficult it is to find a formula for Lotio Alba. It