

Contributed and Selected

A REVIEW OF PHARMACEUTICAL LITERATURE.*

JOHN K. THUM.

It may be of interest to pharmacists to know that not only are some of the better class of newspapers showing a growing disinclination to advertise patent medicines, but they are also beginning to discuss the proprietary evil. The *New York Sun* reported an address delivered by Prof. Francis Carter Wood before the alumni of the College of Physicians and Surgeons, and in its editorial columns commented quite freely thereon. The gist of the *Sun's* editorial is a warning to the public to shun the proprietary-prescribing physician.

It impresses in unmistakable language the possibilities of harm to the patient in the acceptance of prescriptions from medical men who are too indolent or unscientific to think out and write their own prescriptions; who know nothing of the composition of what they prescribe except what the proprietor chooses to tell them, and who certainly have not the time nor the knowledge to find out if the manufacturer is telling the truth. It goes on to say that we "trust the doctor because we know him and that this trust is misplaced if he prescribes a drug the composition of which he does not know."

That the newspapers could be of considerable influence in correcting this evil goes without saying, but their interest must become more general.—Editorial, *New York Sun*, October 7, 1915.

The Assay of Balsam of Peru.—The authors of this paper state that for the assay of this balsam, a number of tests have been proposed, and are to be found in the various pharmacopœias and similar publications; that those depending on color reactions are usually unreliable and of limited value. Much stress is laid on the acid value, saponification value, cinnamein content and its saponification value; that the determination of these constants is generally required by the best authorities and yet it is obvious, they add, that such values are far from being absolutely characteristic, that they are insufficient to demonstrate the purity or authenticity of a sample is a fact unpleasantly brought to their attention by the appearance in recent years of imitation or "synthetic" balsams almost indistinguishable from the natural product.

In a thorough examination of balsam of Peru made by Thoms there was isolated, among other things, a new alcohol, peruvial. This compound, a light liquid with a characteristic odor, was subsequently found to be identical with nerolidol, the sesquiterpene alcohol isolated by Hesse and Zeitschel from the high-boiling fractions of oil of orange flowers.

The authors believe that peruvial, with its high iodine value and dextro-rotation, is the most characteristic constituent of the balsam, and they advise the following simple method for isolating it:—

Peruvial Test: 20 grams of balsam are saponified by heating one hour on a water-bath, with frequent shaking, in a liter flask, with 20 grams of 25 percent potassium hydroxide. Steam is then passed through the mixture, and the distillate collected in 100 or 150 cc. flasks with narrow, graduated necks. From natural balsams there is obtained in this

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manner, in 300 cc. total distillate, from 0.7 to 0.9 cc. of light oil. Imitation balsam gives only traces of heavy oil.—By Francis D. Dodge and Alfred E. Sherndal, *Journal A. Ph. A.*, October, 1915, page 1222.

Quizzes, Tests and Examinations:—Repeated arguments against final examinations as a means of judging the ability of a student have failed to convince the writer of this paper that the time is ripe for their abolishment. They are the best incentive a student has to stimulate his interest and make him strive to do his best. But that best should not be postponed until just a few weeks before final examination. There should be consistent daily application on the part of the student. "There is no short road to success." There never was and never will be! The author's experience in teaching has convinced him that the most practical method of making students study all during their college course is to put quiz work on the basis of frequent written tests.—By H. V. Army, *Journal A. Ph. A.*, October, 1915, page 1233.

New and Non-official Remedies:—The Council on Pharmacy and Chemistry of the A. M. A. have accepted histamine hydrochloride, the hydrochloride of the base beta-iminazolyethylamine (histamine). Histamine is closely related to histidine, from which it differs in that one molecule of carbon dioxide has been eliminated. Histamine hydrochloride has a powerful contractile action on certain muscular fibers and a strong vasoconstrictor action. The available evidence does not warrant a recommendation for its therapeutic use, but it is a valuable reagent for the standardization of pituitary and similar preparations.

Mercurialized Serum has also been accepted by the same body. It is a solution of mercuric chloride in normal horse serum, diluted with physiologic sodium chloride solution. It is claimed to be of value in the treatment of syphilis, particularly of the cerebrospinal type. It may be given intravenously or intraspinally.—*Journal of A. M. A.*, October, 1915, pages 1367, 1185.

The so-called Concentrated Solution of Silver Iodide:—The writer of this paper states that there is on the market at the present time a so-called soluble preparation of silver iodide. That is to say, the silver iodide is in concentration in the form of a solution and the addition of this solution to a designated volume of water makes a 5 percent suspension of silver iodide. Whether this method of dispensing silver iodide possesses any advantages over the usual method is questionable. In the writer's opinion it would be far safer for a patient to receive a freshly prepared precipitate of this chemical, well washed, and held in suspension with the aid of a solution of gelatine, Irish moss, or some other appropriate gummy substance.

This solution of silver iodide is made by taking advantage of the fact that silver iodide is soluble in an excess of potassium iodide.

One of the claims made by the manufacturers of this preparation is that "it is less expensive" than preparations of the same salt sufficiently diluted for immediate use. When one considers that the solution of this salt requires a considerable excess of potassium iodide (the preparation on the market showing on analysis at least 60 percent of free potassium iodide), and then considers the price of potassium iodide even in normal times, one is averse to agreeing with this statement.

It is also well to remember that potassium iodide as found on the market is usually quite alkaline and while it may be true that such a preparation is painless when introduced into the urethra, that does not prove that it is harmless. It is also well to remember that suspensions of silver iodide are frequently used in eye infections, and for that purpose should be very carefully prepared, the silver iodide first being very carefully and thoroughly washed with sterile distilled water. If this technic is not followed, the application of the preparation to an eye condition will result in much irritation, pain and an inflammatory condition that is difficult to control.

The writer's investigation of this preparation revealed that it can be prepared readily according to the following formula:—

Silver nitrate	3.70
Potassium iodide	17.00
Distilled water to	25.00

This volume of 25 mils solution, when added to 75 mils of distilled water, makes a 5 percent suspension of silver iodide.—By John K. Thum, *American Journal of Pharmacy*, November, 1915.

Detection of Arachis Oil in Olive Oil:—Arachis oil, more generally known as peanut or ground-nut oil, is quite frequently used to sophisticate olive oil. The following method for its detection is suggested: One mil of the suspected oil is heated with 5 mils of an 8 percent alcoholic caustic potash solution for four minutes in a flask provided with a condensing tube. After cooling to 25°, 1.5 mils of a mixture of one volume of glacial acetic acid and two volumes of water are added, followed by 50 mils of 70 percent alcohol. If the solution is turbid, it is carefully heated until perfectly limpid, is then cooled gradually and the temperature at which it becomes turbid is noted. Pure olive oil becomes turbid at 13.5°, that containing 5 percent arachis oil becomes turbid at 16.9°; that containing 10 percent becomes turbid at 19.8°, and so on. The higher the percentage of arachis oil present the higher the temperature at which the suspected oil becomes turbid.—*The Druggists Circular*, October, 1915, page 665.

THE MERITS OF PHARMACY.*

WILLIAM C. ALPERS.

In timid and hesitating mood, pharmacy steps into the circle of the older and more venerable professions, doubtful of cordial reception. Will they welcome her as a legal sister, or will they turn on her as an intruder? It is not much more than a generation that pharmacy has laid claim to full recognition, at least in the United States, and there is still much opposition to this claim. It is said that she lacks the dignity of a science, and is tainted with commercial desires and tendencies. She possesses neither the venerable age of philosophy, nor the majesty of law, neither the sacredness of theology, the benign power of medicine, nor the depth of natural science. She may be an art, an accomplishment, a skill, but no science.

Whosoever looks upon pharmacy in this way knows but little of her merits, and judges superficially. It is true she does not surround her work with outer glare and glitter. In her daily practice we look in vain for the pomp of judicial display, or the incense and music of sacred worship; nor is there the mysterious dignity of medicine. In a modest, quiet way she stands back and performs her duties without ostentation. Other sciences and professions have gone the same thorny path before they found full recognition. It is nearly one hundred years ago,—in 1824,—that a young pharmacist, Justus Liebig, was appointed the first professor of chemistry at a German University. Raised as a pharmacist in his city, and extending his knowledge of chemistry in Paris, under Gay Lussac and Humboldt, he recognized the possibilities of his vocation, and his master mind conceived ideas and inventions that created not only a new science, but also a new industry. The older professors of Giessen looked upon him with ridicule and disdain. Chemistry might be a toy for scientific men,—a science, never! But the young pharmacist, only twenty-one years old, worked patiently along, and before his death he had become a giant among his peers and a benefactor of the whole world.

*Address delivered at a convocation of the Deans of Western Reserve University, Cleveland, O., before the faculties, members, students and friends of the University.