

preparations were bought in the open market and two aromatic fluid extracts were made from identified dried barks, one collected in 1918, and the other in 1921. All of these preparations were tested in the following manner:

Transfer 5 cc of the material to a separatory funnel with 50 cc of water. Make acid with hydrochloric acid and shake out with 50 cc of ether, wash the ether with water, and extract it with a few cc of 10% ammonia solution. When a brown coloration obscures the test, shake out the ether, which is yellow in the presence of emodin, with water, then with a cold saturated sodium bicarbonate solution, and discard the aqueous layer. Shake out the ether with 10% ammonia. A pink color in the aqueous solution indicates the presence of emodin.

Five of the commercial preparations and both preparations made from known barks gave distinct tests for emodin. Three showed only traces of emodin and two gave no indications of its presence. Apparently the age of the bark does not materially affect this test. Sodium bicarbonate, slaked lime, sodium and potassium hydrates, and mixtures of them and various other alkalies are now used by manufacturers to remove a bitter principle which causes griping.

The following tests were made on the samples which had showed the presence of little or no emodin, to ascertain whether they contained combined or glucosidal emodin.

Boil portions representing about 10 cc of the preparations with 10 cc of 2.5 N hydrochloric acid for about 10 minutes in a 200 cc Erlenmeyer flask with a funnel for a condenser, cool and treat as described under the test for emodin.

Its presence was indicated in all samples tested, although in comparatively small amounts.

The results of these tests would indicate that the drug analyst using the ordinary emodin test might fail to detect the presence of certain preparations of the type of aromatic fluid extract of cascara.

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## STUDENT BRANCHES OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.\*

BY C. B. JORDAN.

Every year the American Pharmaceutical Association makes an earnest effort to increase its membership and yet the growth of the Association is comparatively slow. The average retail pharmacist who has become engrossed in his business feels that, after he has joined the National Association of Retail Druggists, and his local and state associations, he has all the associations that he can afford. It is difficult to appeal to him to join the American Pharmaceutical Association because, as he says, he has all the journals that he has time to read and the efforts of the American Pharmaceutical Association to better his profession are a little too far removed for him to comprehend them.

I believe that the Association would make better progress if membership in it began while the young pharmacist was still in college. For that reason I wish to advocate the formation of student branches of the American Pharmaceutical Association.

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The national engineering societies have recognized the possibilities residing in the college student and have organized student branches of their association. These branches become feeders for the National Association because the student is brought in touch with the parent organization and realizes the benefits to be derived from membership in the same. After leaving college a goodly percentage of these student-members seek full membership in the national organization.

The American Institute of Electrical Engineering has student branches in practically all of the reputable colleges of engineering. Full membership in their national organization costs \$15.00 but to student members the cost is only \$3.00 per year. This membership entitles him to the Journal of the parent organization and to the privilege of wearing the badge of the national organization. He may hold student-membership for three years, after which he must join the parent organization or drop his membership.

The American Society of Mechanical Engineering has similar student branches. Full membership in this organization costs \$15.00 a year, but student membership costs \$2.00. This entitles the student to the Journal of the national organization and he is permitted to hold such membership for two years after graduation. At the end of this time, he must join the parent organization or pay \$5.00 a year for the national Journal, or discontinue his connections with the national organization.

The American Society of Civil Engineering has been a little more conservative but has recently authorized the organization of student branches. Each student branch pays one membership fee and is entitled to one set of proceedings. The proceedings of the student branches may be reported in the national proceedings. Each student-member is issued a card, stating that he is a student-member of the American Society of Civil Engineering up to a certain date, the date at which his branch membership expires. While the connection of the student branches in the case of the American Society of Civil Engineering is not as satisfactory as in the cases of the American Society of Mechanical Engineering and the American Institute of Electrical Engineering, yet the college student forms at least a loose connection with the national organization.

I believe that Student Branches of the American Pharmaceutical Association, organized along the lines of the student branches of the national engineering societies, would be valuable feeders to our Association.

If the American Pharmaceutical Association were to authorize such student branches, charging the members the cost of the JOURNAL, say \$2.00 a year, and permitting them to hold such membership for two or four years, I believe that many of such student-members would later become full members.

Many pharmacy colleges are so located that they do not have the privileges of the present local branches of the American Pharmaceutical Association, and the students do not come into intimate touch with our organization. Of course the teachers in these colleges bring our Association to the attention of the students but a much more intimate connection would be made if student branches were organized. Such branches would not, of course, have the privileges of our present branches, but each member would receive the JOURNAL and have a good working knowledge of our Association. At such branch meetings opportunity would be offered for instructing the college student regarding the activities of the national organization.

If the Section on Education and Legislation deems it of sufficient importance, I would be pleased to have the Section bring this subject to the attention of the Council of the American Pharmaceutical Association.

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### BETTER PROFESSIONAL TRAINING FOR HOSPITAL PHARMACISTS.\*

BY E. C. AUSTIN.

The object of this paper is to bring to the attention of this Section on Education and Legislation the need of better professional training for hospital pharmacists and the need of training that is more closely adapted to their requirements.

The cause for complaint against the existing pharmacy courses is: that they are either so short as to render impossible the acquirement of more than a semblance of a real scientific education, or that too large a part of the work is devoted to studies other than those appertaining to hospital pharmacy.

Pharmacy exists in the hospitals as one department of a scientific organization known as the professional staff. By no stretch of the imagination can it be regarded as the independent profession that many profess to find in the retail stores. The bacteriologist, physiologist, clinician, pharmacist, pathologist, and numerous others, as members of this organization, work interdependently at their dual task of treating the sick and advancing science.

In the process of determining just what qualifications the hospital pharmacist should possess in order to serve his hospital and his profession to the best advantage, four outstanding facts should be held in mind:

- (1) That the hospital pharmacist works with progressive and highly educated scientific men who are usually leaders in their own chosen field.
- (2) That in order to coöperate intelligently with such men he must be, in some degree, familiar with their line of work.
- (3) That his professional co-workers will not accept as a colleague any pharmacist who is not their intellectual equal or the recipient of an education that is on a par with their own.
- (4) That only a man accustomed to the habit of study and possessing a mind trained to observe and think will be able to help solve the problems of curative medicine.

It is generally conceded that there exists in the minds of medical men a well-defined lack of confidence toward the pharmacist that seriously detracts from the value of the service which he renders to the physician. To enumerate all the reasons for this would be difficult, probably impossible. However, it is safe to say, that a disinclination on the part of the men entering pharmacy, to give sufficiently of themselves to their profession, has played its full part. Their reluctance to devote any considerable amount of time or money to preparation for their professional career indicates this. But, whatever may have been the cause, the remedy lies in better service to the medical profession through the medium of better educated pharmacists.

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\* Read before Joint Session Section on Education and Legislation, A. Ph. A., A. C. P. F., and N. A. B. P. For discussion on related lines see Section on Practical Pharmacy and Dispensing A. Ph. A., New Orleans meeting, 1921.