

## EDITORIAL

E. G. EBERLE, EDITOR

2215 Constitution Ave., WASHINGTON, D. C.

### STANDARD DIGITALIS POWDER OF U. S. PHARMACOPŒIA XI.

THE detailed report of the studies on Digitalis Powder by Edmunds, Moyer and Shaw (JOUR. A. PH. A., April 1937, pages 290-305) again emphasizes the necessity for a uniform reference standard for this bioassay. All bioassays are comparative; the variability of animals is becoming more appreciated as better methods of standardization are developed. A satisfactory bioassay requires the duplication of intensity of effect following administration of a *standard* and of an *unknown* sample under essentially identical conditions. The older concept of uniformity in animals, reflected by the adoption of certain numerical values which should produce described effects, is disappearing. It is now recognized that more accurate results are obtainable when simultaneous tests are made on the unknown and the reference standard, and potency evaluated in terms of such standard.

The analytical results show how indefinite the term "cat unit" may be, even when the same laboratory is comparing several samples under presumably identical conditions. Variations in technique, such as the use of a different anesthetic, or a different period for the production of death, or even differences in interpretation of death itself, may produce marked differences in the quantity of digitalis considered to be "one cat unit." These differences are so great as to be potentially dangerous, when considered for any animal unit.

When tests were conducted by the U. S. P. XI one-hour frog method, the U. S. P. Reference Powder was found to be 134% of the potency of the International Standard Reference Digitalis Powder; the British 1928 standard 119% and the Canadian 1928 standard 116%. When tested by the "Four-Hour Frog Method," the "Twelve-Hour Frog (Limitless) Method," and the author's modification of the cat method, different ratios were obtained showing the impracticability of developing factors for the conversion of results upon one animal into results by any other animal method.

By close attention to analytical procedures tests by various frog methods, using different amounts of digitalis, different lots of frogs, and working at different times of the year, showed a maximum variation of 8%, which is well within the limits of error allowable for bioassays conducted within the same laboratory. When different laboratories test the same sample, additional variations in technique may be expected to produce greater variations.

Among the other independent studies being made, in connection with Digitalis, there are two for which the results of these investigations will be useful: *First*, what is the ratio of potency required for U. S. P. X Tincture of Digitalis, as compared with U. S. P. XI Tincture of Digitalis; *second*, which method of bioassay will give results most closely in agreement with clinical value for digitalis and its preparations? The report by Edmunds and associates will be an assistance in connection with these studies, so long as its principal thesis is observed: tests must be conducted under rigidly prescribed technique and using U. S. P. Standard Digitalis Powder as the basis for these conclusions.—JAMES C. MUNCH.

## COMMENCEMENTS ARE PERIODS OF PERLUSTRATION.

**T**HIS writer expressed the following thought on another occasion: Alumni represent assets or liabilities to the institutions which prepared them for their life work and the profession of which they are part—these annual events are periods of perlustration.

In his Dallas address, former President Robert C. Wilson of the American Association of Colleges of Pharmacy brought out points setting a standard of measurement for professional schools. These thoughts which were discussed by him and shaped into a comprehensive study are given very incompletely in this comment, in titular words or phrases: A professional school should assume leadership in its respective field; it should acquaint itself with conditions and practices and trends in that respective field; it should concern itself with the personal character of its graduates; it should identify itself with all proper agencies within the profession. Service should have as a motive ideals above personal gain; it should influence constructive changes for improvement.

The following concluding paragraphs are quoted from the address of President Harmon W. Caldwell, of the University of Georgia, on the same occasion: "The educated man must strive always to see things in their true perspective. He must not forget that all phases of the world's work may be, in the final analysis, equally important. The common, ultimate goal of all is the building of a finer civilization, a civilization in which the reasonable needs of all may be provided for, and in which each individual may find for himself a measure of happiness and contentment.

"Professional men are peculiarly responsible for their particular part of the work that must be done to create this better civilization. They must do that well, but they must also cooperate with workers in other fields so that, through the united efforts of all, we as a people may come to the attainment of our common aspirations."

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THE VENEREAL CONTROL.

**S**URGEON GENERAL PARRAN has started effective work for the control of venereal diseases, but there are always possibilities of improving plans. It is a campaign in which every one can help; no single group can bring about all the necessary results. The details of Public Health services for securing results extend to some professional and social activities that have rather indirect connection, but all phases should be studied.

Only in recent years has early education been thought of in connection with moral questions; secrecy has been deemed the best means for protecting youth from the dangers infection may bring to them. There are immoral persons who lead the youth to satisfy curiosity by supplying the means and others, if unfortunate results obtain, who will acquaint the victim with the means of self-treatment (?). Here the dangers multiply and how best to deal with the problems, becomes very difficult. Cooperation can only result when the conditions are considered; accusation and placing charges of the responsibility on one group are not the means for accomplishment. The unfortunate must be made to realize that they may have help without undue publicity and they must do their part; they must be made to understand that early in the history of their cases it is important to receive proper advice and treatment.

A recent investigation brought out information that might have been surmised but, nevertheless, surprising. The experiences gathered by some hardly ever protect others and every one of these experiences is paid for most dearly. Undoubtedly conditions are different and it may be a source of satisfaction to believe that they are in general no worse than a century or more ago. Improved moral values and higher standards of ethics should obtain.