

ing in Chicago in November formally adopted the term. No other terms suggested are even being considered. Those mentioned by Dr. Hamor are obviously out of the question. It is well known that the child scientists have been using the word, but if they will spell their word correctly there will be no difficulty. Of course it is not expected that any such

term will immediately come into general use instead of soil science, which appeals to many of us as quite satisfactory. Perhaps it may never be generally used. But we can be sure that it will be used to some extent from now on in research work, at least.

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QUOTATIONS

MEDICAL EDUCATION IN AMERICA

THE third report of the influential American Commission on Medical Education dealt with general principles. In a supplement to the third report a critical summary is given of some of the changes in procedure which have been put to a practical test in a number of the American schools of medicine, and serve thereby to illustrate certain of the general principles of training emphasized in the earlier report. The schools are referred to by letters of the alphabet, and not by their names, and without considerable knowledge of the local conditions it is therefore very difficult to identify them. The former period of two years' pre-medical work has now been extended to three or even four years in most of the better schools of medicine, which can easily fill their classes with college graduates; and as 95 per cent. of the graduates follow their medical course of four years by a hospital internship of one to two years, it takes about ten years from the date of entering college for the student to become financially independent. The cost of medical education is naturally going up, and the fees paid by students supply, as shown by the average of the figures from sixty-three schools, little more than one third of the total, the difference being met by endowment and from other sources. In the sixty-three schools, 42 per cent. of the budget goes to provide salaries for the whole-time teachers, and 6 per cent. to part-time teachers. During the last few years the total amount of work, as shown by the number of hours required, has been somewhat reduced in the majority of schools; thus in thirteen schools which in 1925 demanded 4,000 or more hours, there has been an average reduction of over 400 hours, but there are wide variations; in twenty schools taken at random the hours required for anatomy varied from 1,267 to 480, for medicine 1,030 to 428, for surgery 660 to 332, and for gynecology and obstetrics 368 to 168. Although much

consideration has been given to uniformity and standardization, there is probably far more variation in the curriculums at different schools than is generally assumed. Three types are described. The first is the orthodox standardized curriculum of recent development, intended to familiarize the students, who all take the same courses, with every phase of medical knowledge; the amount of instruction is heavy, and the staff is small. The second type is represented by a small number of schools closely allied with universities, having few students, who have much more freedom, working on graduate rather than on undergraduate lines, and specializing early; the teaching staff is large, and there are full-time clinical instructors. The third group is intermediate between the other two, and offers a comprehensive training for all and special opportunities for a limited few. Teaching in pharmacology is becoming less concerned with pharmacy and more with the physiological action of drugs, thus forming a bridge between physiology and therapeutics. Clinical-pathological conferences, in which the physician in charge of the case first gives the clinical history and diagnosis, and the pathologist then shows the post-mortem conditions, are well established at some schools, as are joint demonstrations of surgical problems by surgeons and anatomists. Efforts are made to remove the reproach that the student does not know how to deal with the sick person; thus at one school 15 per cent. of the fourth-year students follow the daily work of a general practitioner for one or even two months. The teaching of preventive medicine throughout the curriculum is gaining ground, and it is pointed out that pharmacological instruction might well deal with patent medicines and the mischief they do to patients who attempt to treat themselves at a stage when early diagnosis and proper treatment may prevent serious consequences.—*The British Medical Journal*.

SCIENTIFIC APPARATUS AND LABORATORY METHODS

AN INNOVATION IN SCALE CONTROL

INCIDENTAL to a study of the effect of dusting citrus trees with extremely finely divided sulphurs for

possible control of the citrus thrips, the discovery has been made that a very high mortality of the citricola scale (*Coccus pseudomagnoliarum* Kuw.) has accom-