

views on its structure, the relation between structure and activity is discussed. The most recently discovered feature of heparin structure, the sulphated amino-group, may or may not turn out to be the key to the remarkably high anticoagulant activity of heparin as compared with other sulphated polysaccharides. Regarding the mode of action of heparin on the clotting system, it seems probable that heparin intervenes at more than one point. It certainly functions as an antithrombin and probably acts also against thromboplastin.

In a fine concluding article entitled "The Rubicon: Changing Views on the Relationship of Thrombosis and Blood Coagulation", Prof. A. H. T. Robb-Smith entertains us with a glimpse of a review of coagulation and thrombosis as it would have been written a century ago, perhaps in the "British Medical Almanack" of 1855. He manages to include much that is illuminating to-day and inspiring for the future, and some very sobering thoughts on the necessity of studying coagulation *in vivo* and not only in artificial systems. It appears that, if we could predict the onset of thrombosis, we could, by careful use of the drugs available to-day, avoid the disease altogether—a worthy objective for the scientific approach in medicine.

C. R. RICKETTS

UNIVERSITY OF LEEDS

AT a meeting of the Court of the University of Leeds on December 15, 1954, the vice-chancellor, Sir Charles Morris, said that if the universities of Great Britain have succeeded in assimilating new studies which are most exigent of both human and material resources without destroying the essential nature of academic communities, this is largely due to the sympathy and wisdom of successive governments, which have seen it as their first task to enable each university to preserve its own special academic character and balance of interests. Only when this is secured has the government sought to encourage developments in particular fields, such as studies in oriental languages, social studies and higher technological education. In regard to the last-named, the Government's most urgent concern is to increase the number of graduates in technology available for industry and commerce after taking their first degree. So far as the University of Leeds is concerned, continued Sir Charles, the main limiting factor is accommodation; but some overcrowding has been accepted in the expectation that the necessary new buildings and extensions can be undertaken without great delay.

Sir Charles stated that it was expected to complete the chemistry and physics buildings of the University within the next few weeks, and a capital grant from the University Grants Committee will enable the work to begin without delay upon the first stage of the remaining extension; this extension is an essential part of the expansion of the technological departments, for which a new building has in addition been planned. Work on the first section of this latter building, to house the Department of Fuel Science, including now chemical engineering and metallurgy, was expected to start in about three months, with the aid of a large capital grant from the University Grants Committee. Accommodation available for the Medical School is also being increased, including new accommodation for the Departments of Biochemistry and of General Medicine; and in due

course, as part of the City development plan for the area north of the General Infirmary, it is hoped to plan and build a new Medical School. It is hoped to start the building of the first section of the new arts block early in 1957. This building, on the south side of University Road, is to have an impressive frontage looking south and is to balance the science block on the north side of the Parkinson Building.

Referring to the Government's known view that leaders of the future in technology should be educated in the university manner, side by side with the scientific workers and medical workers and those destined for the older professions, Sir Charles said that it is of the greatest importance that the universities should retain their traditional character and way of life. He thought that at Leeds, while not doing all that could be done, they were succeeding in this and were determined to do better still.

ANATOMY AND ANGIOSPERM CLASSIFICATION

IN an essay entitled "An Anatomist's Views on Angiosperm Classification" (*Kew Bull.*, No. 3, 427; 1954), C. R. Metcalfe has applied himself to the problem of how the taxonomist, confronted with the Angiosperms in all their abundance and diversity of species, can be helped in his aim to produce a natural classification, by making use of the results of laboratory investigations. Long experience has shown that the morphology of the reproductive structures, apparently less plastic than the other parts of the plant body, affords the most reliable criteria for purposes of classification. Nevertheless, the case is now forcefully presented that the micro-morphological characters of the vegetative organs can be used to advantage in taxonomic studies. Indeed, it has been shown that the conclusions based on the observation of such characters may show a large measure of agreement with those reached by the traditional methods.

In the body of the article, the author discusses critically, with citation of many interesting examples, the parallelisms in the evolution of the woody elements, for example, tracheids to vessels, scalariform end-wall plates to simple perforations, etc., the relationship of herbs to ligneous plants, and the *Durian* theory. He notes that if the diagnostic microscopic characters for most taxonomic groups above the level of families are surveyed, it becomes evident that orders and taxa of higher rank are heterogeneous. From this he concludes that orders are probably, with some exceptions, taxonomic conveniences, rather than assemblages of genetically related plants. By contrast, a study of the diagnostic microscopic characters of genera in individual families supports the view that most families appear to be homogeneous and therefore constitute natural groups. Where exceptions occur, this generally indicates a need for some taxonomic revision, or that a large family needs to be divided into distinct groups. The author concludes that taxonomy is likely to develop to the best advantage by the collaboration of the herbarium botanist with those who approach the subject by laboratory techniques. Moreover, the laboratory approach to taxonomy should lead to a closer integration of systematic with other branches of botany.