

sometimes within a few hours of the inoculation of the serum.

THE 1918 Directory of the American Chemical Society is now available for members. It contains 422 pages as compared with the 1916 directory's 289 pages, and it exceeds by approximately 4,000 the number of members listed in the 1916 issue. The directors have voted that it may be obtained by members from the secretary on payment of \$1.00 to cover partial cost of printing and upon their written statement that it is desired for their personal use only and will not be loaned or disposed of to any firm which they may or may not be connected or to any individual to be used for advertising purposes.

A COMMITTEE of the Scottish Geographical Society has been appointed for the formation of a complete collection of the old maps of Scotland, including all early atlases, county maps, charts, town plans and estate plans, and especially manuscript maps. The present acting members of the committee are the Hon. Lord Guthrie, president of the society; Professor P. Hume Brown, LL.D., historiographer royal; J. G. Bartholomew, cartographer to the King; W. B. Blaikie, LL.D., and Harry R. G. Inglis, members of the Council. Mr. Inglis has been appointed honorable custodian of the collection. To this committee the council has handed over the care of all early maps already in the possession of the society. The committee has acquired by purchase the collection of old Scottish maps belonging to the late Mr. C. G. Cash, who for many years made a special study of the subject; and through the generosity of certain donors and certain fortuitous circumstances, have been placed in such a position that they require only about half-a-dozen general maps to make the collection complete down to 1820, and they already have maps which do not appear in any of the public libraries of Scotland. The collection as it stands is unique, being more nearly complete than any yet gathered. So far, the expenses of the committee have been met by voluntary subscriptions, the amount of which on September 30, 1918, was £111.

## UNIVERSITY AND EDUCATIONAL NEWS

THE new mining and engineering building of the University of Arizona, which has been under construction since May, 1917, was opened on January 3. This building is the finest on the university campus and has been constructed and equipped at a total cost of \$210,000.

THE faculty of the school of medicine of Western Reserve University has voted to admit women next year.

FOR the first time in the history of the University of Pennsylvania, the doors of the university hospital are to be thrown open to women physicians, who will act as interns. Two women students in the medical department of the university who will graduate in June have been chosen by the managers of the hospital. They will assume their duties shortly after graduation.

PROFESSOR HAL W. MOSELEY has been promoted to be associate professor of chemistry in the Tulane University of Louisiana.

## DISCUSSION AND CORRESPONDENCE

### EUCALYPTUS NEVER PRESENT IN NORTH AMERICA

THE identification of the antipodean genus *Eucalyptus* in the fossil floras of Europe was the subject for a sweeping condemnation by the veteran systematist Bentham in one of his addresses. Without subscribing to the viewpoint of one who was at best a narrow specialist and could see nothing useful in the study of fossil plants, it remains true that the identification of *Eucalyptus* in many fossil floras has led to what I believe to be erroneous conclusions in the minds of many geologists and botanists who lack both time and the special knowledge for passing on the returns.

A few years ago I advanced a theory of origin and distribution for the family Myrtaceae which was based largely upon the recent and fossil distribution of the different tribes.<sup>1</sup> This theory in its broader outlines considered

<sup>1</sup> Berry, E. W., "The Origin and Distribution of the Family Myrtaceae," *Bot. Gaz.*, Vol. 59, pp. 484-490, 1915.

America as the center of radiation for the family and regarded the subfamily Myrtoideæ as the most ancient. The subfamily Leptospermoideæ was regarded as derived from the former; and the Australian types, which are the peculiar ones of the family, were regarded as having originated in that region in response to local environmental conditions subsequent to the Cretaceous radiation of the family stock. Genera such as *Eugenia* and *Myrcia* were regarded as representing this ancestral stock more nearly than any other of the existing genera.

This theory considered *Eucalyptus* as one of the more specialized genera and is this conclusion I agreed entirely with Andrews and other Australian friends who have repeatedly expressed doubt regarding the presence of *Eucalyptus* in the fossil floras of the northern hemisphere. Without wishing to be dogmatic about European fossil forms referred to *Eucalyptus* and known to me only from figures, I may say that I do not regard the genus as ever having been present in North American, although in conformity with long-established custom and with due consideration for the stratigraphic applications, I have frequently referred fossil forms to this genus.

A question of considerable importance is the real botanical affinity of the numerous North American Cretaceous forms which have been referred to *Eucalyptus*. These are undoubtedly ancestral to the American Eocene forms referred to *Eugenia* and *Myrcia*, and it would probably not be far from the truth if they were referred to the genus *Myrcia*. I have collected and studied a great many of these Cretaceous types and some of them are certainly closely allied to, if not identical with that genus. Others are somewhat remote and pending a solution of their botanical affinity, which may never be satisfactorily attained, I would advocate the dropping altogether of the use of *Eucalyptus* for those North American fossil forms. This usage is seriously misleading from the standpoint of evolution and distribution, and moreover is not supported by any valid botanical arguments, as I pointed out in the paper already alluded to at the beginning of

this note. The alternative that I suggest is the taking up of the genus *Myrtophyllum* proposed by Heer in 1869<sup>2</sup> and using it for leaves of Myrtaceæ whose generic relations can not be determined with certainty, and more especially for the leaves commonly referred to the genus *Eucalyptus*. EDWARD W. BERRY

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#### THE RICHARDTON METEORITE

On July 21, about 10 P.M., many people saw a meteorite fall in the district lying between Mott and Richardton, N. D. From the descriptions of many eye witnesses it appears that the meteorite fell at a low angle, about 75° from vertical, and that its direction of flight was about due north. It seems to have burst a few thousand feet above the ground, and to have broken into many pieces, over a hundred of which have been found. The weight of the material discovered is about 200 pounds. The meteorite is stony, poor in metallic parts, composed of little spheroids in a gray brittle matrix, classified tentatively by the writer as a veined kugelchen chondrite.

Nearly all the witnesses agree that the meteorite made a very bright light and a rushing sound, followed by a noise like thunder, and that it made the windows rattle and the houses shake; two men heard the whistle of stones like the flight of bullets, and one heard the stones rattle upon the roof of his barn, near which specimens were later found. The most intelligent witness says it looked first like a very bright falling star, and that it burst like a Roman candle, after which he heard the stones falling. Every one admits that he was very much frightened, most of them emphasize the terrifying noise and the brilliant light.

The meteorite did not fall at a very high velocity, for few pieces have been found buried in the ground, most pieces were found in pastures or wheat fields. Two pieces at

<sup>2</sup> Heer, O., *Neue Denks. Schw. Gesell. Naturw.*, Bd. 23, mem. 2, p. 22, 1869. Type being the widespread mid-Cretaceous species *Eucalyptus Geinitzi*.