THE new building for the Medical College of South Carolina, Charleston, was formally transferred to the board of trustees of the institution, November 18. The address of the occasion was made by Dr. William S. Currell, president of the University of South Carolina.

DR. JOHN HENRY MACCRACKEN, syndic and professor of politics in New York University, has been elected president of Lafayette College. In the same week Dr. Henry Noble MacCracken, professor of English at Smith College, was elected president of Vassar College. They are the sons of Dr. Henry Mitchell MacCracken, chancellor-emeritus of New York University.

PROFESSOR S. F. ACREE, of the Johns Hopkins University, has accepted the position of chief of the Section of Derived Products in the Forest Products Laboratory in Madison and professor of chemistry of forest products in the University of Wisconsin.

MR. DE FOREST HUNGERFORD, instructor in soils in the College of Agriculture, University of Minnesota, has been appointed assistant professor of agronomy in the College of Agriculture, University of Arkansas.

DISCUSSION AND CORRESPONDENCE

RATE OF CONTINENTAL DENUDATION

AT first glance nothing appears more simple than the measurement of the discharge of a large river, and from the volume of matter found to be held in suspension and in solution to calculate the annual depletion of the drainage basin. Ever since the first estimates of Humphreys and Abbot, over half a century ago, the Mississippi River has been a favorite illustration of this kind. Recent results of more elaborate measurements of this character made by the federal government are apparently undertaken with the express purpose of determining the rate of lowering of the continental surface through stream-corrasion.

So soon as a concrete case is settled upon there enters into the problem a number of new and variant factors which, if not perfectly evaluated, utterly invalidate the results sought. In this respect the Mississippi Valley appears to be the most unfortunate choice that it is possible to select. Although the recently published results seem to give excessively small figures and the established rate very much too slow, it is to certain other features that attention is here briefly called, which appear not to have entered into the calculations named.

According to the figures referred to it would take some millions of years to reduce the already low-lying Mississippi basin to the condition of a true peneplain with a position but slightly above tide-level. All direct geologic observations made during late years in the region go to show rather conclusively that in reality the surface of the vast basin is on the whole actually rising instead of becoming notably lower.

Among other factors it appears that the wind-borne dusts from western deserts are alone probably depositing materials over the entire Mississippi Valley faster than the river and its tributaries are carrying rock-waste to the sea. In recent geologic times, also, the western half of the basin has actually had deposits laid down upon its surface to a thickness of not less than 1,000 feet. The great river has not only not been equal to the task of doing its normal amount of work, but it has been so incapacitated as to permit this prodigious volume of rock-waste to accumulate until its original Tertiary surface is already carried far below sea-level. Nowhere on earth is there finer exemplification of vast continental sedimentation.

In the lately compiled estimates of continental lowering several diastrophic factors are left out. These are extremely important in all calculations of this kind. Since Glacial times—perhaps 10,000 years ago—a very considerable part of the upper Mississippi Valley appears to have been elevated not less than 500 to 600 feet. This change of level may represent the isostatic compensation of the last great ice-cap. At any rate, while there has been over this region an erosive loss of a fraction of a foot each century, there has been in the same time a gain in sediments of many times this amount. Growth has exceeded decline a hundred-fold.

The elaborate stream-measurements thus go for naught. They give no clue whatever to the absolute rate of continental lowering through erosion. They merely emphasize the fact of the relative impotency of stream-work in general. They bring into strong contrast the tremendous effects of other geologic agencies of degradation and of aggradation which we have long been accustomed entirely to ignore, or to give only scant consideration.

Charles Keyes

CLADONEMA

In looking up the date for the species of the flagellate protozoon, *Cladonema laxum* Kent 1871 (*Anthophysa laxum* Kent), I found that Seville Kent had proposed for this species the name *Cladonema*,[1] having derived it from the Greek, *klados*, branch, and *nema*, thread. His type species is *C. laxum*, of which he wrote: "This species was first briefly described by the author, with an accompanying figure, in the *Monthly Microscopical Journal* for December, 1871, under the title of *Anthophysa laxa;* the isolated instead of clustered mode of attachment of the animalcules to their pedicle, added to the flexible, thread-like aspect and consistence of their structure, distinguishes it, however, so conspicuously from the representatives of either the genus *Anthophysa* or other allied forms described in this treatise, that a new generic name has been created for its reception," *i. e., Cladonema.*

References to *Cladonema* in the literature earlier than 1880 lead the writer to trace back the name to 1843. In *Ann. des Sci. Nat.* for that year, 11e serie (Zoologie), Tome 20, pp. 370–3, Dujardin listed a new medusa, for which he proposed the name *Cladonema radiatum.* This form had developed from the hydroid *Stauridium* (see description, p. 372). Krohn in 1853[2] accepted the name for the medusa, and only differed from Dujardin's interpretation in minor points in the development into the *Stauridium.* Others to recognize the name *Cladonema* for the medusa prior to 1880 are: Kefferstein und Ehlers, 1861, *Zool. Beitraege,* Neapel, Messina, p. 85, taf. 13, Fig. 5; Van Beneden, 1866, *Mem. Acad. Roy. Belgique,* Tome 36, p. 139, pl. 12; Hincks, 1868, "Hist. Brit. Hydroid. Zooph.," p. 62, pl. 11; Allman, 1872, "Monog. Tubul. Hydroids," pp. 216, 357, pl. 17, Figs. 1–10; and Haeckel, 1879, "Syst. der Medusen," p. 109.

Mayer, in his "Medusa of the World," Pt. I. (Carnegie Inst. Pub.), 1910, recognizes the name *Cladonema* for the medusa form and gives the full bibliography (p. 99). In Pt. III. of this work, p. 719, he writes under the caption "Preoccupied Generic Names":

> The establishment of the Commission upon Zoological Nomenclature and the general recognition which the code that controls its decision has won for itself among naturalists makes it more than ever desirable that the validity of the generic names we now use should be firmly established. Accordingly, the tenability of each and every generic name adopted in this work has been made the subject of thorough research, and I am somewhat surprised to find that names which have been used for generations without question of their priority are actually preoccupied for other groups of animals and can not be applied to the medusæ.

He lists five such cases, *Corynitis, Slabberia, Turris, Tiara* and *Laodicea. Cladonema,* however, remains established for the medusa form.

It seems evident from the above that Kent proposed the name *Cladonema* for the Infusorian without knowing that the name was already occupied. Hence the former name *Anthophysa* Bory, 1822 (?), must be revived for the reception of this species, or a new name proposed.

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[1] Manual of the Infusoria, Vol. I., London, 1880, pp. 264–65.

[2] *Mueller's Arch. f. Anat. u. Physiol.,* 1853, p. 420.

SCIENTIFIC BOOKS

The British Rust Fungi (Uredinales), their Biology and Classification. By W. B. Grove, M.A. Cambridge, at the University Press. 1913. Pp. xii + 412.