Genus *Cleiothyris,* Phillips.

Type *Terebratula concentrica,* von Buch.

The type here is not so certain; but this seems to be the solution of Phillips's rather ambiguous phrases. At any rate *Cleiothyris* can not be used as King intended.

The genus *Seminula* has hitherto been incorrectly used, with *Spirifer ambiguus* as type, on a doubtful identification of Davidson's—that *T. pentaëdra,* the true genotype, was a synonym of *S. ambiguus.* But *T. pentaëdra* is hypothyrid, that is, it has a rhynchonelliform beak; while *S. ambiguus* is epithyrid, that is, it has a terebratuliform beak. *T. pentaëdra* is what would at present be called a *Camarophoria. S. ambiguus* happens to have been taken as type of a genus *Composita* in 1845, but it has always been overlooked. Therefore—

Genus *Seminula,* McCoy.

Type *Terebratula pentaëdra,* Phillips.

Non *Seminula,* auct.

The genus is not of the family Athyridæ, but is a pentamerid, allied to the later named *Camarophoria,* which may, perhaps, be retained for the transverse multiplicate forms, *Seminula* designating the globose pauciplicate species.

Genus *Composita,* Brown.

Type *Spirifer ambiguus,* Sowerby.

Syn. *Seminula,* auct. non McCoy.

Ref. T. Brown, 'Illustr. Fossil Conch. G. Britain and Ireland,' p. 131, 1845. This work of Brown's has been altogether neglected, and his names overlooked; but he was quite definite about his type. His work appeared in parts from 1837 to 1849; and the date of p. 131 is 1845. (*Vide,* Sherborn, Proc. Malacol. Soc., VI., 358, 1905.) All the athyrids hitherto assigned to *Seminula* will have to bear the name *Composita.*

Genus *Leptodus,* Kayser.

Syn. *Lyttonia,* Waagen.

Leptodus is generally given as a synonym of *Lyttonia;* but Waagen was not justified in suppressing Kayser's name merely because he placed it among fishes.

Genus *Cyclothyris,* McCoy.

Type, the species figured by McCoy, 'Carb. Foss.,' p. 150, fig. 29 = *Terebratula latissima,* Sowerby.

Davidson made this suggestion, and it appears correct. Therefore, the bulk of the Mesozoic Rhynchonellæ—all those that are multiplicate and hypothyrid—should go under this genus rather than under *Rhynchonella,* which should be applied only to the species congruous with the *R. loxia* series of pauciplicate hypothyrids.

New names are required for *Hypothyris,* auct. non Phillips and *Cleiothyris,* auct. non Phillips. The following were suggested: *Hypothyridina,* vice *Hypothyris,* and *Cleiothyridina,* vice *Cleiothyris.*

S. S. BUCKMAN.

CURRENT NOTES ON METEOROLOGY.

THE CYCLONIC THEORY.

To the interesting discussion concerning temperatures in cyclones and anticyclones, H. H. Clayton contributes an article in the *Beiträge zur Physik der freien Atmosphäre,* Vol. II., No. 2, on 'A Discussion of the Observations obtained by the Blue Hill Observatory with Ballons-sondes at St. Louis.' As the readers of these notes are aware, this discussion has been going on for some time, and has been participated in chiefly by Hann, Clayton and Bigelow. To go into the details as each article appeared has always seemed to the compiler of these notes too technical a matter for the columns of a general scientific journal like SCIENCE, and to do so would have occupied a good deal more space than could be devoted to meteorology in this publication. We are glad to note the emphasis which Mr. Clayton lays upon the points upon which general agreement has been reached, for further discussion will be more helpful and more to the point if the matters which have found general acceptance are clearly established. To quote: "The results of all the investigators agree in showing that the highest temperatures at all heights within an area of low pressure are in advance of the barometric minimum and the lowest in the rear; while in the area of high pressure the lowest temperature is in advance of the barometric maximum and the highest

in the rear." This conclusion, Mr. Clayton believes, "will probably find general acceptance as representing the conditions up to 6 kms. everywhere in temperate latitudes." In answer to a criticism made by Hann (*Met. Zeitschr.*, Nov., 1905, 491) to the effect that Mr. Clayton had determined the central areas of cyclone and anticyclone from the time of high and low pressure at Blue Hill, and not from the weather maps, our author points out that the weather maps were used. We ourselves carelessly omitted to point out that Dr. Hann was mistaken in his objection, on the occasion of our mention of this matter in these notes some months ago.

CLIMATOLOGICAL ATLAS OF INDIA.

One of the most attractive, as well as one of the most important publications in climatology ever issued is the new 'Climatological Atlas of India,' prepared by Sir John Eliot, lately meteorological reporter to the government of India, and published by Bartholomew, of Edinburgh. This atlas contains one hundred and twenty colored maps, showing with great detail and in well-selected, harmonious colors, the distribution of the climatic elements over the Indian empire. We learn from the preface that a handbook of the weather and climates of India is in preparation and will be a companion volume to the atlas. India has for many years been well known for its admirable meteorological service and for its long series of valuable meteorological publications. Sir John Eliot has now fittingly ended his term of service as head of that organization by preparing this magnificent volume which will always stand as a monument to his work.

MONTHLY WEATHER REVIEW.

The last number of the *Monthly Weather Review* (No. 6, 1906) contains an illustrated paper by Professor J. E. Church, Jr., of the University of Nevada, on the new 'Mount Rose Weather Observatory,' in Nevada; a plea for the 'Use of the Lantern in Teaching Meteorology,' by Professor J. P. Goode, of the University of Chicago; a further instalment of his 'Studies on the Thermodynamics of the Atmosphere,' by Professor F. H. Bigelow; a description of a waterspout near Tarrytown, N. Y., July 16, 1904, illustrated by six half-tones; an account of 'The Tornado of June 6, 1906, near La Crosse, Wis.,' by G. A. Oberholzer, and of 'The Tornado of April 12, 1906, at Stafford, Kansas,' by W. E. Seright; and several short papers on 'The Structure of Hailstones.'

NOTES.

Professor W. I. Milham has published a 'Syllabus of a Course on Meteorology,' given by him in Williams College. The course is a three-hour elective for juniors and seniors, and is much more thorough than most of the courses at present being given in American colleges. Practical work in making observations, in generalizing from meteorological data and in making forecasts, is required as part of the course.

Ciel et Terre for September 1, 1906, contains articles on the dust from Vesuvius observed at Brussells last spring, and on atmospheric waves noted at the observatory of Meudon, by Millochau, by means of the telescope.

The Annual Report of the Transvaal Meteorological Department for the year ending June 30, 1905, contains several charts showing the distribution of the various meteorological elements; also half-tones of lightning views taken at Vereeniging in 1904–5.

R. DeC. Ward.

RECENT IMPORTANT ANTI-MALARIA WORK.

The latest reports on the measures taken to abolish malaria from Klang and Port Swettenham in Selangor, Federated Malay States, indicate the most admirable results. These measures were undertaken first in 1901 and 1902, and have been reported upon from time to time in the *Journal of Tropical Medicine*. The expenditure undertaken by the government with a view to improving the health of the inhabitants of these towns has been fully justified by the results which promise to be of permanent value. The total expenditure for the town of Klang, down to the end of 1905 was £3,100, and the annual permanent expenditure is about £60 for clearing earth