represented), but extends to a remarkable extent to the Asclepiadaceæ and also to the Leguminosæ; probably other families are also affected. It seems likely that in the Transvaal this development enables the plant the better to survive adverse temporarily xerophytic conditions. It is particularly noticeable here that these plants are among the first to flower in the spring, and that many—I am not yet able to say with certainty, most—of them flower without a drop of rain having fallen for four or five months, and on dry hillsides where they are not affected by any subirrigation. It is true that there has been some heavy dew, but in some of these instances not enough to make the grasses and annuals start growth. As I write there are Liliaceæ, Iridaceæ and Asclepiadaceæ in bloom on some of the driest ridges of the high veldt, where scarcely a new blade of grass is to be found. It must not be inferred from this, however, that there is no green grass at this season. On areas of burned veldt the new growth of grass is in many cases quite perceptible even without any rain, perhaps owing to the effect of heavy dews.

JOSEPH BURTT DAVY.

BRAIN-WEIGHTS OF BROTHERS.

IN a former number of SCIENCE (XVII., No. 430, p. 516) the writer cited several brain-weights of brothers and sisters, mostly children. After the recent execution by electricity of the three Van Wormer brothers, the following data were obtained at the post-mortem examination:

	Willis.	Burton.	Fred.
Age	27	23	21
Stature (centimeters)	172.8	178.0	175.2
Head length	18.2	19 1	19.1
Head breadth	15.1	15 1	16.0
Cephalic index	82.9	79.0	83.7
Head circumference	53.3	54.1	56.1
Body-weight (estimated)	140 lbs.	145	150
Fresh brain-weight	1,340 gms.	1.358	1,600

The high weight of Frederick's brain occasioning some comment, it was again weighed after about five minutes' drainage, the second figure being 1,590 gms. The left hemicerebrum weighed 3 gms. more than the right in Willis's and 10 gms. less in Burton's, while in Frederick's case the two halves weighed exactly the same.

The physiognomy of the cerebral gyral conformation of the three brains is quite similar in some respects.

A full report will be published later. There was a well-marked postorbital limbus on the left side in Frederick's brain.

E. A. SPITZKA, M.D.

RECENT ZOOPALEONTOLOGY.

SCHLOSSER'S LITERATURBERICHT.

DR. MAX SCHLOSSER, of Munich, continues his invaluable 'Literaturbericht' up to the close of the year 1900, and sends it to us as an abstract from the *Archiv für Anthropologie,* Bd. XXVIII. Like all the previous numbers of this review, which began in 1883, this is most welcome not only because our attention through it is directed to the entire literature, but because of the original critical notes which the author adds to the various abstracts which he presents.

AMERICAN OLIGOCENE MICROFAUNA.

IN the White River formation near Pipestone Springs, western Montana, Mr. Earl Douglass discovered a very interesting microfauna. The American Museum of Natural History in 1902 visited the same locality and secured a rich collection of small mammals, especially important because the *Titanotherium* beds of South Dakota have yielded only the large mammals of the period. The collection is described by Dr. W. D. Matthew* as including one marsupial allied to *Didelphys,* three Insectivora, including two new genera of an extremely primitive type, two species of Creodonta, two of Carnivora related to the dogs and mustelines respectively and six species of rodents. Among the horses is the primitive *Mesohippus westoni,* older in type than *Mesohippus bairdi.* The Artiodactyla are also represented by a variety of small forms. In this connection may also be

* 'The Fauna of the *Titanotherium* Beds of Pipestone Springs, Montana,' *Bull. Amer. Mus. Nat. Hist.,* Vol. XIX., 1903, art. VI., pp. 197–226.