been made of giving to the new groupings of species thus revealed names which are so dissimilar from that of the orginal genus, and from each other, as to hide the genus-relationship. The latter is shown when the genera are grouped as a family.

The subdivision of the animal kingdom into groups that receive independent names should not be carried further than is necessary to ensure ready diagnosis of the species. When carried beyond that point the classification is weakened.

What is required at present is the extinction of probably half at least of the genera. The present family-group should in many cases be the genus.

H. CHAS. WILLIAMSON.
Marine Laboratory of the Fishery Board for
Scotland, Aberdeen, March 23.

The Dublin Gorilla.

LIVE specimens of the gorilla are still rarities in British zoological gardens, and it is believed that except for one that has lived for several years at Stuttgart, there is no example at present to be seen on the European continent. A few notes on a young female—probably about a year old—that has now lived for three months in the ape-house of the Royal Zoological Society of Ireland, in Dublin, may therefore be of interest to readers of NATURE.

This little ape—"Empress" is her name—was brought to Europe in company with a young male chimpanzee; in consequence of this companionship she is much tamer and livelier than captive gorillas usually are. In the constant sports which the two young creatures enjoy, the chimpanzee is the more active and spirited, frequently cuffing the gorilla playfully or dragging her along the floor of the house. The gorilla, however, is able to hold her own, and has already developed the habit of drumming on her chest as a challenge; usually she is good-tempered both to her companion and to human visitors. She often climbs leisurely but confidently to the top of the house. The photograph (by Mr. W. N. Allen) shows the little ape in a characteristic attitude, and brings out the distinctive shape and pose of the leg and hindquarters. Her eyes are very expressive, and her almost black face is a great contrast to the pale pink skin of her companion chimpanzee. Both the apes have completely recovered from an epidemic cold that ran through the house in February, and it is hoped that "Empress" may survive in the Dublin Gardens for several years.

G. H. CARPENTER.
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A Property of Chain-Fractions.

FOR convenience, let $(1; a, b, c, \ldots)$ mean the chain-fraction of which $1/a$ is the first convergent, and a, b, c, etc., are the partial quotients. Consider all such fractions which have no partial quotient greater than 9: the greatest of these is the periodic fraction $(1; \dot{1}, \dot{9})$, and the least is $(1; \dot{9}, \dot{1})$. We have,

$$\alpha = (1; \dot{1}, \dot{9}) = (-9 + \sqrt{117})/2 = 0.9083,$$
$$\beta = (1; \dot{9}, \dot{1}) = (-9 + \sqrt{117})/18 = 0.1009,$$

and any proper fraction outside the limits (α, β) will have at least one partial quotient greater than 9. (The converse is not true.) More generally, one partial quotient at least will be greater than an assigned integer n, if the chain-fraction represents a quantity outside the interval determined by the positive roots of the equations :—

$$\alpha^2 + n\alpha - n = 0, \quad n\beta^2 + n\beta - 1 = 0.$$

As n increases, α becomes more and more nearly equal to 1, and β more and more nearly equal to 0. The curious point is that if we take a proper fraction sufficiently near to 1 or zero, its chain-fraction expansion must contain a partial quotient greater than any integer assigned beforehand, and we can actually (when n is given) assign intervals containing such fractions *and no others*. For instance, when $n=9$ the intervals are

$$\{1, (-9 + \sqrt{117})/2\} \text{ and } \{0, (-9 + \sqrt{117})/18\}.$$

Thus 0.9089 is within the first of these intervals, and its expansion is $(1; 1, 9, 1, 42, \ldots)$.

G. B. MATHEWS.

New Units in Aerology.

IN NATURE of March 19, p. 58, Prof. McAdie discusses the question of the new units in aerology, and says that now is the time to agree upon a logical and available system, considers the megabar atmosphere the more appropriate, and thinks that some of the readers of NATURE may suggest something better.

I have not the ambition to respond to the last suggestion, but, in order to avoid confusion in the future, I beg to direct attention to what has been done in this respect very recently. According to an official report, M. Pérot has presented to the French Minister of Commerce a report upon the reform of the legalised measures and weights. In this we find among the derived units the *Newton* as a unit of force $= \text{Kg m/sec.}^2$, which equals 10^5 dynes. From this is derived another new unit, *Pascal,* as a unit of pressure, 10 Newtons per sq. cm. (10 Newtons=1 megadyne). I may add that the *Calorie* is proposed at $15°$ and 1.02 Pascal $(=765.1 \text{ cm.})$.

As France may be called the mother-country of the c.g.s. system, the question arises, whether the name *Pascal* might not be substituted for the *modern* megabar (*not* for *ten* absolute atmospheres)?

BOHUSLAV BRAUNER.
Bohemian University, Prague, March 24.

WINELAND THE GOOD.[1]

THE evidence for the pre-Columbian discovery of North America by Norsemen depends essentially on two sagas: the Saga of Eric the Red, the Saga of Thorfinn Karlsefni in Hauksbook; both of which are repeated with modifications in the Flateybook. The dates of the extant MSS. lie between 1300 and 1400 A.D.; the sagas themselves were probably composed about a century earlier; the main event, the discovery of Wineland by Leif the Lucky, occurred in or