the author had examined 2789 flowers for the corolla, and found from five lobes in 0.33 per cent. to a, maximum of eight lobes in 40 per cent., declining to a percentage of 0.04 for those with twelve lobes. Similarly, the teeth of the calyx were examined in 3560 flowers at the same time, and showed with four teeth 2.56 per cent., with five and, six lobes the maximum with respective percentages of $46 \cdot 26$ and 47.8 I , the last being of eigint teeth with 0.22 per cent.
Aristotelian Society, April 7.-Prof. Wildon Carr in the chair.-A. F. Shand : Emotion and value. Intrinsic value, whether in external things or in the constituents of the mind, is not a simple, statical quality that can be found in some things, but about which nothing further can be said. It is essentially dynamical. It presupposes. always something on which it can act, with which it has affinity, and the power of acting on this thing in certain ways. Such value cannot, therefore, be wholly contained in or confined to the thing which possesses it ; for a condition of intrinsic value is the power of propagating the same kind of value in the other thing with which it has affinity. But this power, though a part and condition of this value, does not sum it up. For things would not have power to produce excellent effects unless there were something excellent in their own nature. Fear, anger, and hate have one kind of effect; joy, admiration, and love have an opposite kind. The power of each depends on its own nature. The power which is a condition of intrinsic value is therefore also conditioned by it.
Zoological Society, April 8.-Dr. S. F. Harmer, vicepresident, in the chair.-Dr. F. E. Beddard: Three foetal sperm whales. Attention was directed to the smallest foetus exhibited, which measured $4^{\frac{1}{2}}$ in. in length.-L. T. Hogben : The progressive reduction of the jural in the Mammalia--G. A. Boulenger: Two new lizards and a new frog from the Andes of Colombia.-R. I. Pocock: Structural characters by which the genera of Felidæ may be distinguished from each other. Special attention was directed to the formation of the feet in the cheetah (Acinonyx), to the modifications of the hyoidean apparatus in the lions, tigers, leopards, and jaguars (Panthera), and to the position of the partition in the auditory bulla in other senera.

## BOOKS RECEIVED.

Sands: Considered Geologically and Industrially under War Conditions. By Prof. P. G. H. Boswell. Pp. 38. (Liverpool: At the University Press.) is. net.
Organic Chemistry; or, Chemistry of the Carbon Compounds. By V. von Richter. Edited by Profs. R. Anschütz and G. Schroeter. Vol. i.: Chemistry of the Aliphatic. Series. Translated and revised by Dr. P. E. Spielman. Second (revised) edition. Pp. xvi +7 19. (London: Kegan Paul and Co., Ltd.) $21 s$. net.
Food (War) Committee, Royal Society. Report on the Composition of Potatoes Grown in the United Kingdom. Pp. 3I. (London: Harrison and Sons.) 2 s .

Yorkshire Type Ammonites. Edited by S. S. Buckman. Part xviii. (London: W. Wesley and Son.)

A Summary of My Theory of the Sun. By Dr. A. Brester. Pp. 62. (The Hague: W. P. Stockum and Son.)
Carburettors, Vaporisers, and Distributing Valves Used in Internal-Combustion Engines. By E. Butler. Second edition. Pp. viii +288 . (London: C. Griffin and Co., Ltd.) 12s. $6 d$. net.

The Mica Miner's and Prospector's Guide. By A. A. C. Dickson. Pp. viii +50 . (London: E. and F. N. Spon, Ltd.) 4s. $6 d$. net.

Birds Beneficial to Agriculture. By F. W. Frohawk. Pp. vi $+47+22$ plates. Economic Series, No. 9 , British Musedm (Natural History). (London : British Museum, Natural History.) $2 s$.

Report on Cetacea Stranded on the British Coasts during 1918. By Dr. S. F. Harmer. Pp. 24. (London: British Museum, Natural History.) $3^{s .}$. 6 d :
T.N.T. Trinitrotoluenes and Mono- and Dinitrotoluenes: Their Manufacture and Properties. By G. ${ }^{\text {C. C. Smith. Pp. vii }+\mathrm{I} 33 \text {. (London: Constable }}$ and Co., Ltd.) 8s. $6 d$. net.
The Life of Matter: An Inquiry and Adventure. Edited by A. Turnbull. Pp. xviii $+324+\mathrm{iv}$ plates. (London: Williams and Norgate.) $7 s$. 6 d . net.
Calcul des Valeurs Absolues. By D. Riabouchinsky. Pp. IIz. (Copenhague.)

## DIARY OF SOCIETIES.

THURSDAY, APRII, 24.
Institution of Eiectrical Enginkers, at 6.-Major A. C. Fuller: The Fullerphone, and its Application to Military and Civil Telegraphy.

TUESDAY, APRIL 29.
Zoological Society, at $5 \cdot 30$-Dr. W. T. Calman: Marine Boring Animals.-Noel Tayler: A Unique Case of Asymmetrical Duplicity in the Chick.-Geo. Jennison : A Chimpanzee in the Open Air in England.

## CONTENTS. <br> PAGE

Gyroscopics. By Sir G. Greenhill, F.R.S. . , 121 A Physiologist's Contribution to War Surgery. By H. H. D.

122
Introductory Meteorology. By Sir Napier Shaw, F.R.S.

Our Bookshelf . . . . . . . . . . . . . . 124
Letters to the Editor:-
The Finger-print System in the Far East.-Cav. Filippo de Filippi, K.C.I.E.
Supposed Effect of Sunlight on Water-drops.-Prof. G. H. Bryan, F.R.S.

A South African Pioneer. (Illustrated.) By Sir H. H. Johnston, G.C.M.G., K.C.B. . . . . . 125

Part-time Education in the United States . . . . 127
The Future of Scientific Industries . . . . . . 128
Dr. Henry Wilde, F.R.S. By W. W. H. G. . . . 129
Notes
130
Our Astronomical Column :-
Observed Changes on Jupiter . . . . . . . . . . . 134
Drawings of Mars . . . . . . . . . . . . . . 134
The Gegenschein or Counterglow . . . . . . . . . 134
Tycho Brahe's Original Observations . . . . . . 134
The Development of Airship Construction . . . I34
Experiments in Psychical Research . . . . . . . 135
Meeting of the British Medical Association . . . . ${ }_{136}$
Agriculturs1 Research in Madras . . . . . . . . . 137
Uses of Invisible Light in Warfare . . . . . . 138
University and Educational Intelligence . . . . . 138
Societies and Academies . . . . . . . . . . . . . 139
Books Received . . . . . . . . . . . . . . . . . 140
Diary of Societies . . . . . . . . . . . . . . . . 140

Editorial and Publishing Offices: MACMILLAN AND CO., L.tD., ST. MARTIN'S STREET, LONDON, W.C.2.

Advertisements and business letters to be addressed to the Publishers.

Editorial Communications to the Editor.
Telegraphic Address: Phusis, London.
Telephone Number: Gerrard 8830.

