

phenylcyclopentane has been isolated from the numerous products of this reaction.—Some derivatives of thiophene: V. **Thomas**. Magnesium acts on α -iodothiophene in presence of ether, giving an organomagnesium compound which behaves similarly to phenyl magnesium iodide in many of its reactions. Details of the products resulting from the action of various ketones are given.—The formation of acetic aldehyde in alcoholic fermentations: A. **Trillat**. The experiments described prove that acetic aldehyde is not a true product of fermentation, since if the fermentation is carried out in the presence of hydrogen or carbon dioxide, air being carefully excluded, no aldehyde can be detected. If air is freely admitted during the fermentation, more aldehyde is produced than if a little air is present.—The production of gum in the *Moringa*: F. **Jadin** and Volcy **Boucher**.—The phytology of the eastern region of Kabylie and Djurdjura: G. **Lapie**.—The levers in the organism: A. **Guillemin**. A discussion of the efficiency of the leg muscles and bones considered as levers.—The discovery of Palæolithic paintings of man and animals in the Portel cave: René **Jeannel**. More than forty paintings of animals and human beings have been found on the walls of this cave. None of the designs have been cut into the rock, and they are coloured either black or red, both in line and flat wash. Some of the objects are partially masked by stalagmitic deposit. Two designs represent man on foot in profile; others represent bison, reindeer, and horses, the last being the most numerous. Photographs have been taken of some of the objects, and the remainder will be photographed shortly.—Anemometric studies of helices copied from animals: Paul **Amans**.—The Pliocene and Pleistocene eruptions of Limagne: Ph. **Glangaud**.—Contribution to the study of the solar calorific radiation: C. **Féry** and G. **Milochau**.

DIARY OF SOCIETIES.

THURSDAY, APRIL 2.

ROYAL SOCIETY, at 4.30.—Complete Survey of the Cell Lamination of the Cerebral Cortex of the Lemur: Dr. F. W. Mott, F.R.S., and Miss A. M. Kelley.—The Alcoholic Ferment of Yeast Juice. Part III. The Function of Phosphates in the Fermentation of Glucose by Yeast Juice: A. Harden and W. J. Young.—The Antagonistic Action of Calcium upon the Inhibitory Effect of Magnesium: S. J. Melzer and J. Auer.—Studies on Enzyme Action, XI., The Hydrolysis of Raffinose. XII., Emulsin: Prof. H. E. Armstrong, F.R.S., and others.
ROYAL INSTITUTION, at 3.—The Animals of Africa: R. Lydekker, F.R.S.
ROYAL SOCIETY OF ARTS, at 8.—The Navigation of the Air: Prof. H. S. Hele-Shaw, F.R.S.
LINNEAN SOCIETY, at 8.—Altitude and Distribution of Plants in Southern Mexico: Dr. Hans Gadow, F.R.S.—The Anatomy of some Sapotaceous Seedlings: Miss Winifred Smith.—Notes on some Sponges recently collected in Scotland: Dr. N. Annandale.
CIVIL AND MECHANICAL ENGINEERS' SOCIETY, at 8.—Efficiency of Boiler Heating Surface: C. Humphrey Wingfield.
CHEMICAL SOCIETY, at 8.30.—The Condensation of Epichlorohydrin with Phenols: D. R. Boyd and E. R. Marle.—Rate of Hydrolysis of Chloroacetates and Bromoacetates, and of a Chlorohydrin by Water and by Alkali, and the Influence of Neutral Salts on the Reaction Velocities. Preliminary Note: G. Senter.—A New General Method of Preparing Diazonium Bromides: F. D. Chattaway.—On the Probable Nature of the Impurity found in the Triphenylmethane Spectrum: W. N. Hartley.—The Absorption Spectrum of Triphenylmethane: A. G. G. Leonard.—The Constituents of *Cyprus Origanum* Oil. Isolation of a New Terpene (*Origanene*): S. S. Pickles.
INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—High Speed Electrical Machinery: G. Stoney and A. H. Law.

FRIDAY, APRIL 3.

ROYAL INSTITUTION, at 9.—The Modern Motor Car: Lord Montagu of Beaulieu.
INSTITUTION OF CIVIL ENGINEERS, at 8.—Notes on the Foundations of an Indian Bridge: G. W. N. Rose.
SATURDAY, APRIL 4.
ROYAL INSTITUTION, at 3.—Electric Discharges through Gases: Prof. J. J. Thomson, F.R.S.

MONDAY, APRIL 6.

VICTORIA INSTITUTE, at 4.30.—History of the Spread of the North American Fauna: Prof. J. Logan Lobley.
ARISTOTELIAN SOCIETY, at 8.—Impressions and Ideas: H. Wildon Carr.
SOCIETY OF CHEMICAL INDUSTRY, at 8.—Considerations affecting the "Strength" of Wheat Flours: J. L. Baker and H. F. E. Hulston.—Note on Murexide as a *quondam* Dye Stuff and Printing Colour: W. Smith.

TUESDAY, APRIL 7.

ROYAL INSTITUTION, at 3.—The Egyptian Sudan: its History, Monuments, and Peoples. Past and Present: Dr. E. A. Wallis Budge.
ZOOLOGICAL SOCIETY, at 8.30.—A Monograph of the Chiropteran Genera *Uroderma*, *Euchis:henes*, and *Artibeus*: Dr. Knud Andersen.—On

Certain Points in the Structure of the Cervical Vertebrae of the Okapi and the Graffe: Sir Ray Lankester, K.C.B., F.R.S.—Some Australian Spiders: H. R. Hogg.
INSTITUTION OF CIVIL ENGINEERS, at 8.—The King Edward VII. Bridge, Newcastle-on-Tyne: F. W. Davis and C. R. S. Kirkpatrick.
JUNIOR INSTITUTION OF ENGINEERS, at 8.—Purification of Water: George H. Hughes.

WEDNESDAY, APRIL 8.

ROYAL SOCIETY OF ARTS, at 8.—Technical Education in America: Sir W. H. Preece, K.C.B., F.R.S.

THURSDAY, APRIL 9.

ROYAL INSTITUTION, at 3.—The Animals of South America: R. Lydekker, F.R.S.

FRIDAY, APRIL 10.

ROYAL INSTITUTION, at 9.—The Carriers of Positive Electricity: Prof. J. J. Thomson, F.R.S.

ROYAL ASTRONOMICAL SOCIETY, at 5.
PHYSICAL SOCIETY, at 8.—An Experimental Investigation of the Nature of γ Rays: Prof. W. H. Bragg, F.R.S., and Mr. Madsen.—Experiments on Artificial Fulgurites: Miss D. D. Butcher.—Short-spark Phenomena: W. Duddell, F.R.S.
INSTITUTION OF MECHANICAL ENGINEERS, at 8.

SATURDAY, APRIL 11.

ROYAL INSTITUTION, at 3.—Electric Discharges through Gases: Prof. J. J. Thomson, F.R.S.

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