schools at Kilmarnock. Evening lectures are available, and a certain amount of extension work in the form of lecturing at local institutes, conducting experiments, giving expert advice to farmers, etc., is also done.

A LARGE and important part of the extension work of most of the universities, colleges, and departments of education in the United States of America is done by correspondence methods (Bureau of Education, Bulletin No. 10, 1920). A list of the institutions developing this means of satisfying the desire for knowledge contains no fewer than thirty-eight universities. Seventy-three institutions are given in all, of which sixty-one are supported by public funds, and they are conducting correspondence courses for nearly one hundred thousand students. The Massachusetts Board of Education has provided some figures which show the motives actuating the pupils who enrolled for their correspondence courses, and also their previous educational history. More than 50 per cent. undertook courses in the hope of immediate practical gain, while only 22 per cent. began the work from motives of culture or enjoyment; the educational history of the pupils showed that 49 per cent. came from secondary schools, and 35 per cent. had received elementary education only. At the same institution 76 per cent. of those who enrolled for correspondence classes were above school-age; the average age was 26·3 years. The results obtained from studies of the ages of correspondence students in the University of Wisconsin, Indiana University, and other institutions differ little from those obtained in Massachusetts.

THE University Colleges of Newcastle-upon-Tyne—the College of Medicine and Armstrong College, both of which are units of the University of Durham—have launched an appeal to the district they serve for 500,000*l*. A large committee representing the four northern counties has been set up, under the presidency of Viscount Grey of Fallodon, and at a recent meeting, at which the Duke of Northumberland acted as chairman, this committee pledged itself to do all in its power to relieve the colleges from their present embarrassment. The financial position of Armstrong College is little short of desperate. In July, 1921, the college will be faced with an annual recurring deficit of more than 19,000*l*.; the salaries of the staff, though they have already been augmented, are still far too low; it has been found impossible to keep equipment up to date; and students have had to be refused admittance in large numbers. This college, the only university college between Leeds and Edinburgh which teaches science, is faced with bankruptcy. The situation of the College of Medicine, though less serious financially, is also unsatisfactory. It is badly hampered by lack of accommodation, and unable to develop its teaching to the full along modern lines. Believing that their needs have only to be made widely known to their district to be relieved, the two colleges have thrown themselves upon the generosity of Tyneside and the surrounding counties.

A PUBLIC meeting was held on Thursday, November 25, at the Leeds Town Hall, under the presidency of the Lord Mayor, to inaugurate an appeal for funds for the University of Leeds. The University is asking the public of Yorkshire, and others interested in the progress of higher education in the county, for 500,000*l*., and the Vice-Chancellor (Sir Michael Sadler) was able to announce to the meeting that towards this fund gifts amounting to 112,800*l*. had already been received or promised. Amongst those who spoke in support of the appeal were representatives of local authorities, who contribute largely to the revenue of the University, and a number of prominent professional and business men. The needs of the University for additional funds were explained at the beginning of the meeting by the chairman of the council (Mr. Arthur G. Lupton), the treasurer (the Hon. Rupert Beckett), the Vice-Chancellor, and Prof. Smithells. The number of students in the University is now nearly three times as large as before the war. Most of the departments are overcrowded, and the annual expenditure of the University has enormously increased as a necessary consequence of the new conditions created by the war. New laboratories are required in nearly all the University's departments of pure and applied science and for the school of medicine, and new buildings are needed for the department of agriculture, the school of dentistry, the University library, the Students' Union and gymnasium, and as halls of residence for men and for women students. A large addition to the general endowment fund of the University is also desired.

## Societies and Academies.

LONDON.

**Royal Society,** November 18.—Sir J. J. Thomson, president, in the chair.—Sir A. **Schuster**: The absorption and scattering of light. The paper is based on the generally accepted theory that refraction and dispersion are caused by the oscillations of electric resonators embedded in the medium through which the light passes. With homogeneous light each resonator responds with a forced oscillation, together with a motion following the laws of free oscillations, and gradually dying out. If white light falls on the medium the forced oscillation has to be replaced by an integral and other terms have to be added that are due to disturbances caused by neighbouring molecules. The equation for the displacement of an oscillator then takes the form:

$$z = \int_0^\infty \mathrm{E} f(n, w) \cos(wt - \epsilon)\, dw + \Sigma \mathrm{C}_s e^{-\kappa(t-t_s)} \sin \sqrt{n^2 - \kappa^2}(t - t_s).$$

The principal result of the paper is that all the terms of this equation are spectroscopically identical. If the proper value for $f(n, w)$ be introduced, and if E be regarded as constant, then the integral in the first term of the right-hand side is merely the analytical representation by Fourier's integral of any of the terms of the summation, with a proper adjustment of $\epsilon$ and $t_s$. As it stands, it represents a motion beginning at time $t=0$ and continuing according to the laws of a damped oscillator. The mechanism of scattering and absorption is discussed, and Lord Rayleigh's equation for the coefficient of extinction in a scattering medium is obtained in a more vigorous manner, so as to include cases where $\mu - 1$ is not necessarily small.—Prof. O. W. **Richardson**: The emission of electrons under the influence of chemical action. The electron currents to a surrounding metal electrode from spherical drops of the liquid alloy of sodium and potassium under the influence of chemical action with a number of gases have been investigated and measured under various conditions. The gas which has been studied most is phosgene ($COCl_2$), then, in decreasing order, $Cl_2$, $H_2O$, and HCl. In all cases the relation between the current and the applied potential difference is of the same general character. When proper allowance is made for the contact potential difference between the two metal surfaces it is found that the electron currents are nearly constant for small accelerating electric fields. Thus, as in the case of photo-electric emission, the saturation value of the current is reached with a

potential difference very close to zero. With retarding fields the currents fall off rapidly as the applied potential difference increases. Like similar thermionic electron currents, they approach the voltage axis gradually and not sharply, as in the photo-electric case. The true zero on the voltage scale is difficult to determine on account of fluctuations in the contact potential difference. In the case of $COCl_2$ it has been possible to locate the zero to within 0·10 volt by a photo-electric method. The proportion of the chemically emitted electrons the kinetic energy of which lies between $u$ and $u+du$ is very closely represented by

$$\frac{u\,du}{k^2T^2}e^{-u/kT}$$

where $k$ is Boltzmann's constant and T is a certain temperature. For the case of $COCl_2$, T is near 3300° K, and for the case of $Cl_2$, T is about 4900° K. The formula above represents a Maxwell distribution for the temperature T. Thus the distribution of kinetic energy among the chemically emitted electrons is the same as that among the molecules of a gas at the uniform temperature T.—Dr. A. E. **Oxley**: Magnetism and atomic structure. This communication is an extension of former papers on "The Influence of Molecular Constitution and Temperature on Magnetic Susceptibility" (Phil. Trans. Roy. Soc., vol. ccxiv., A, 1914; vol. ccxv., A, 1915; and vol. ccxx., A, 1920). From Tyndall's work and recent experiments of the author on the characteristic deportment of diamagnetic and paramagnetic crystals in the magnetic field, it appears that in non-ionised crystal structures the fundamental unit of the space lattice is the molecule. It is shown that the electron orbits in atoms must be distributed in space round the nucleus, each electron describing a small orbit, or alternatively the electron itself may be a complex unit endowed with magnetic properties. In either case the distribution must be such that the aggregate projected area of the electron orbits on a plane perpendicular to the principal cleavage is a maximum in both diamagnetic and paramagnetic crystals. This result is consistent with a closer packing of the molecules in a direction parallel to the principal cleavage. In crystals of the simple cubic form X-ray analysis has indicated that the structure is an ionised-atomic one, and the cleavages are all of equal value. Such crystals show no appreciable structural deportment in the magnetic field. The above views relating to electron distribution are consistent with the cubical atom theory of Lewis and Langmuir, but not with Bohr's theory. The coupling forces between atoms and molecules in non-ionised crystals are due to the mutual magnetic induction between pairs of electron orbits. A model of the hydrogen molecule is given, in which the arrangement of the coupling units determines a diamagnetic molecule as required by experiment. It is considered that the above views and those of Bohr may eventually be brought into line by a fuller recognition of the possible differences between radiating and non-radiating matter.—Prof. A. O. **Rankine**: The proximity of atoms in gaseous molecules. In this investigation a close examination is made of the relations between the estimates of atomic diameters obtained by Prof. W. L. Bragg from X-ray crystal measurements and those deduced from the kinetic theory of gases. The examination is carried out from the point of view of the Lewis-Langmuir molecular theory. It is shown that if, for example, a hypothetical molecule be constructed of two argon atoms with their centres separated by the distance demanded by Prof. W. L. Bragg's figures, the behaviour of such molecules in thermal agitation would be almost identical with the actual behaviour of chlorine molecules. Similar relations are shown to exist for the pairs of gases neon-oxygen, krypton-bromine, and xenon-iodine. The following conclusions are regarded as justified: (*a*) There is substantial *quantitative* agreement between the estimates of atomic dimensions deduced from X-ray crystal measurements and from the kinetic theory of gases. (*b*) In size and shape the atoms of the monatomic inert elements are nearly indistinguishable from the atoms respectively of the neighbouring diatomic elements in the periodic table. (*c*) The Lewis-Langmuir molecular theory accounts satisfactorily for the kinetic behaviour of the molecules of oxygen, chlorine, bromine, and iodine in relation to the behaviour of the corresponding inert atoms neon, argon, krypton, and xenon.—Prof. A. O. **Rankine**: The similarity between carbon dioxide and nitrous oxide. The two gases in question have been shown by Langmuir to have almost identical physical properties. In particular, they have the same viscosity, and the application of modern kinetic theory indicates that their molecules have the same size and shape. In the present paper it is shown, by the extension of methods already described by the author, that the kinetic behaviour of the molecules of both $CO_2$ and $N_2O$ is consistent with their being identical in size and shape with three neon atoms in line and contiguous, *i.e.* with outer electron shells touching. This is in accordance with Langmuir's view of the constitution of these molecules.—Dr. A. M. **Williams**: Forces in surface films. I.: Theoretical considerations. II.: Experimental observations and calculations. III.: The charge on colloids. I. and II.: Attention is directed to the effects of (i) accessibility of surface and (ii) adsorption on the apparent specific volume of finely divided solids. A simple theory of these effects is developed, with which observations are in agreement. The true specific volume of a specimen of charcoal, which appeared to be 0·51 in water and 0·46 in chloroform, was evaluated as 0·67 c.c. per gm. The attractive pressure on the surface film on the charcoal was calculated and found to be of the order of 10,000 atmospheres, while the internal pressure of the charcoal itself was evaluated as of the order of 50,000 atmospheres. III.: It is shown that compressive forces of the order previously determined may give rise in the adsorption layer to a diffusion potential difference of the magnitude observed in the case of suspensoids. The influence of the diffusion of hydrogen- and hydroxyl-ions on the potential difference is emphasised, and the neutralisation of the charge on suspensoids and their consequent precipitation explained in terms of diffusion potential.

**Physical Society**, November 12.—Sir W. H. Bragg, president, in the chair.—Dr. F. H. **Goucher**: Ionisation and excitation of radiation by electron impact in helium. Measurements have been made of the critical potentials for helium by the method used in the experiments of Davis and Goucher, these being compared with the ionising potential of mercury vapour taken as a standard. Assuming the ionising potential of mercury to be 10·4 volts, two critical potentials occur in helium, one at about 20 volts and the other at about 26 volts. These critical values agree well with those obtained by Horton and Davies. The effect of radiation alone on the metal parts of the apparatus was studied under conditions which would yield evidence of use in the interpretation of the results obtained when the production of both ionisation and radiation was taking place simultaneously. The conclusion was drawn that the lower critical potential was a radiation potential, though some ionisation was produced also at this potential. This, however, was attributed to the presence of impurity,

probably hydrogen. The higher critical potential was that at which ionisation took place.—J. **Guild**: The location of interference fringes. The conditions under which interference fringes, produced by reflection of light from the two surfaces of a "thick plate," are visible to an observer. The treatment lays stress on the physical significance of the term "location" as applied to interference fringes and on the dependence of the observed phenomena on the conditions of observation. For a broad source of light a formula is obtained which is equivalent to that derived by Michelson. For a joint source of light at infinity it is shown that the fringes obtainable are equally visible at all distances from the plate.—J. **Guild**: Fringe systems in uncompensated interferometers. An investigation of the form of the fringe system observable at infinity, or in the focal plane of a telescope, when a broad source is employed with a Michelson interferometer in which the glass paths of the two interfering beams are not equal. The fringes may be elliptical or hyperbolic, with circles and straight lines as special cases. In the recently developed method of using the instrument for optical testing, the fringes due to a joint source at infinity are employed. It is shown that the form of the fringes in this case are unaffected by lack of compensation, but that the visibility of the fringes is conditioned by the nature of the fringe system due to a broad source.—Dr. G. **Barr**: A new relay for heavy currents. The action of the relay depends on the fact that no arc can be maintained between mercury electrodes in hydrogen. One lead is brought to mercury contained in a vertical tube within a solenoid. An iron rod, at the upper end of which is a glass cup floats in the mercury. The cup also contains mercury, and the other lead is connected to an iron rod which dips into this. When no current flows in the solenoid the rim of the cup is about 1 cm. above the level of the main body of mercury. When the relay current (about 0·03 ampere) is running the iron rod is sucked down until the rim of the cup is submerged by about 0·5 cm. The space above the mercury contains hydrogen. The relay can be used to break quite large currents (20 amperes) without much spark.

EDINBURGH.

**Royal Society**, November 1.—Prof. F. O. Bower, president, in the chair.—Three connected papers by Dr. J. **Rennie**, Miss Elsie **Harvey**, and B. **White**: The Isle of Wight bee disease. The results of these investigations, which were being carried out in the Parasitical Laboratory at Aberdeen, showed that the so-called Isle of Wight disease was due to a small mite living in the respiratory system of the bee. This was contrary to the views advanced some eight years ago by workers in England, who claimed that the causal organism was a protozoon named *Nosema apis*. Mr. Anderson, of Aberdeen, was the first to call in question this hypothesis, and the series of papers now presented established the existence of a new type of parasitism in bees of a remarkable kind. The small mite which was the cause of the disease belonged to the genus Tarsenemus. It was highly specialised in structure, was bred within the bee, and was confined to an extremely limited, but very important, region of its breathing system. Within the space of a few cubic millimetres scores of these creatures might be seen in all stages of development, sometimes packed in dense columns so as to cut off effectually the air-supply from the surrounding organs. The detailed pathology described in Mr. White's paper proved the destructive character of the parasites' habits. Thousands of bees had been examined from large numbers of stocks throughout the country, and it had been found that every stock reported by trustworthy beekepers or certified by the investigators as suffering from the disease harboured this parasite. Similarly, every individual bee known from its stock-history and individual symptoms to be suffering from the disease was likewise found to contain these parasites and to exhibit the internal disorders which caused the disabling symptoms. The investigators stated that they were now able to diagnose the disease in its earliest stages while the bees were capable of flying and foraging. Miss Harvey's researches showed that infection appeared to occur mainly in the hive, the conditions of the cluster making this comparatively easy. Mites had been obtained from the outside of the bee apparently on their migratory passage. Tarsenemus included several species destructive to plants, and there were some which have been found in malignant growths in man and other animals. The bee parasite was more closely allied to the latter group. Many bees from different countries outside Great Britain have been examined, and so far Tarsenemus has not been found in these. All the evidence hitherto obtained points to the parasite being peculiar to this country, coinciding with the general testimony regarding the insular character of the Isle of Wight disease. This name had long been regarded as unsatisfactory, and "acarine disease" was proposed as more appropriate. In view of the great practical interest taken by Mr. A. H. E. Wood, of Glassel, in the work of the research, Dr. Rennie proposed to designate the new species *Tarsenemus Woodi*. To Mr. Wood and to the Development Commissioners special recognition was due for having provided in equal measure funds necessary to finance the investigation, and the authors also record their high appreciation of the support of beekeepers throughout the country in supplying bees and other assistance so essential for the successful conduct of the research.—Prof. J. H. M. **Wedderburn**: The equations of motion of a single particle.

PARIS.

**Academy of Sciences**, November 8.—M. Henri Deslandres in the chair.—L. **Lecornu**: The permanent movements of liquids.—P. **Termier** and W. **Kilian**: The western edge of the glittering schists in the Franco-Italian Alps between Haute-Maurienne and Haut-Queyras. A discussion of the question as to whether the contact between these schists and the Briançon series is normal or abnormal. A careful study of more than 100 km. shows that the contact of these two strata has none of the characters of a normal contact, and the idea of a stratigraphical continuity is highly improbable.—L. **Lumière**: The photographic representation of a solid in space. Photostereo-synthesis.—H. **Parenty** and G. **Vandamme**: Utilisation of the energy of tides and waves. A description of an arrangement of cells made of reinforced concrete, by means of which air is compressed or rarefied by the shock of the waves. The apparatus has been constructed and gives pressures of 2–3 kg.—J. **de Lassus**: A transmission of mechanical energy utilising an invariable mass of gas in closed circuit.—A. **Danjon**: A new variable star of short period. The star *d* Cygnus varies in magnitude from 5·16 to 5·36, and the passage from maximum to minimum may be observed during one evening.—L. **Dunoyer**: Remarks on an article by Irving Langmuir and on another by R. W. Wood. A question of priority.—E. **Jouguet**: Application of the Carnot-Clausius principle to waves of shock in elastic bodies.—R. **Biquard**: Abnormal indications furnished by radio-chromometers with very penetrating X-rays. The principle upon which Benoît's radio-chromometer

depends is not valid for the X-rays from a Coolidge tube under a potential of 60,000 volts or higher, and the use of this instrument should be confined to the measurement of X-rays of medium or low penetration such as those utilised in medical radiography or superficial radio-therapy.—L. and E. **Bloch**: The spark spectra of mercury, copper, zinc, and thallium in the extreme ultra-violet. The measurements were made with a prism spectrograph, and the wave-lengths given are based on Lyman's data obtained with a grating. New lines are given for all four metals.—C. **Raveau**: The determination of the number of independent components. The rule of M. Dubreuil; the action of water on a mixture of salts.—J. B. **Senderens**: The catalytic dehydration of fermentation amyl alcohol. Catalysis by aluminium silicate at 340° to 350° C. gives a mixture of three amylenes, and the proportion in which these are present depends on the length of time the catalyst has been in use. The first litre of amylenes collected contained 93 per cent. of amylene soluble in diluted sulphuric acid, the third litre only 75 per cent.—R. **Cornubert**: The spectrochemical study of the α-allyl- and α-allylmethyl-*cyclo*hexanones.—L. **Duparc** and G. **Favre**: The deposit of oolitic iron ore at Ain-Babouche (Algeria).—H. **Jumelle**: The katoka, a Madagascan tree with edible seeds. The tree is a new species of the genus Treculia, and is named *Treculia Perrieri*. It is abundant in the west of Madagascar and produces a good wood and edible seeds. The latter are consumed by the natives as food, and have been imported into France for the extraction of their oil.—H. **Bouygues**: The terminal meristem of the stem and its division into regions.—P. **Lesage**: Evaporometers and the motion of fluids through membranes.—A. **Damiens**: The bromine and chlorine existing normally in animal tissues. Bromine was found in all the organs examined, except in two or three cases where the quantities of material available were too small. The ratio of bromine to chlorine in the organs of any given animal is sensibly constant, and is of the order 0·001 to 0·002.—L. **Mercier**: Variation in the number of the fibres of the longitudinal vibrator muscles in *Chersodromia hirta*. Loss of the power of flight.—C. **Julin** and A. **Robert**: Organogenesis in the blastozoites of Perophora.—T. **Tommasina**: Remarks on the note by M. Louis Besson on the relation between the meteorological elements and the number of deaths by inflammatory diseases of the respiratory organs at Paris.

## Books Received.

The Birds of the British Isles and their Eggs. By T. A. Coward. Second Series: Comprising Families Anatidæ to Tetraonidæ. Pp. vii+376+159 plates. (London and New York: F. Warne and Co., Ltd.) 12*s*. 6*d*. net.

Considérations sur l'Etre Vivant. By C. Janet. Première Partie. Pp. 80+1 planche. (Beauvais: A. Dumontier.)

The Annual of the British School at Athens. No. xxiii., Session 1918–19. Pp. xvi+260+xvi plates. (London: Macmillan and Co., Ltd.) 30*s*. net.

Anxiety Hysteria: Modern Views on some Neuroses. By Dr. C. H. L. Rixon and D. Matthew. Pp. xi+124. (London: H. K. Lewis and Co., Ltd.) 4*s*. 6*d*. net.

From the Unconscious to the Conscious. By G. Geley. Translated by Stanley de Brath. Pp. xxviii+328. (London: W. Collins, Sons and Co., Ltd.) 17*s*. 6*d*. net.

Functional Mental Illnesses and the Interdependence of the Sympathetic and Central Nervous Systems in Relation to the Psychoneuroses. By Dr. R. G. Rows and Dr. D. Orr. Pp. 63. (Edinburgh and London: Oliver and Boyd.) 3*s*. 6*d*.

Ather und Relativitäts-Theorie. Rede gehalten am 5 Mai 1920 an der Reichs-Universitäts zu Leiden. By A. Einstein. Pp. 15. (Berlin: J. Springer.) 2.80 marks.

The Progress to Geography. By Dr. R. Wilson. Stage 1: Pictures and Conversations. Pp. 144. 2*s*. 6*d*. Stage 2: More Pictures and Conversations. Pp. 176. 3*s*. (London: Macmillan and Co., Ltd.)

Ministry of Health. Annual Report of the Chief Medical Officer, 1919–20. (Cmd. 978.) Pp. 393. (London: H.M. Stationery Office.) 3*s*. 6*d*. net.

Memoirs of the Geological Survey. Special Reports on the Mineral Resources of Great Britain. Vol. vii.: Mineral Oil, Kimmeridge Oil-Shale, Lignites, Jets, Cannel Coals, Natural Gas. By Sir A. Strahan. Second edition. Pp. iv+125. (London: E. Stanford, Ltd.; Southampton: Ordnance Survey Office.) 5*s*. net.

Productive Soils. The Fundamentals of Successful Soil Management and Profitable Crop Production. By W. W. Weir. Pp. xvi+398. (Philadelphia and London: J. B. Lippincott Co.) 10*s*. 6*d*. net.

An Introduction to the Structure and Reproduction of Plants. By Prof. F. E. Fritch and Dr. E. J. Salisbury. Pp. viii+458. (London: G. Bell and Sons, Ltd.) 15*s*. net.

British Plants: Their Biology and Ecology. By I. F. Beirs and H. J. Jeffery. Second edition. Pp. xii+346. (London: Methuen and Co., Ltd.) 7*s*. 6*d*.

Public Health Chemical Analysis. By R. C. Frederick and Dr. A. Forster. Pp. viii+305. (London: Constable and Co., Ltd.) 21*s*. net.

Hydraulics with Working Tables. By E. S. Bellasis. Third edition. Pp. viii+348. (London: Chapman and Hall, Ltd.) 18*s*. net.

Practical Physiological Chemistry. By S. W. Cole. Sixth edition. Pp. xvi+405. (Cambridge: W. Heffer and Sons, Ltd.; London: Simpkin, Marshall and Co., Ltd.) 16*s*.

Collected Papers on the Psychology of Phantasy. By Dr. C. E. Long. Pp. xii+216. (London: Baillière, Tindall and Cox.) 10*s*. 6*d*. net.

The Origin of Man and of his Superstitions. By C. Read. Pp. xii+350. (Cambridge: at the University Press.) 18*s*. net.

Maryland Geological Survey. Cambrian and Ordovician. Pp. 424+lviii plates. (Baltimore: Johns Hopkins Press.)

Report on the Danish Oceanographical Expeditions, 1908–1910, to the Mediterranean and Adjacent Seas. By Dr. Johs. Schmidt. No. 6. Vol. ii.: Biology. Pp. 140+110. (Copenhagen: A. F. Høst and Son.)

La Chimie et la Guerre. Science et Avenir. By Prof. C. Moureu. Pp. iii+384. (Paris: Masson et Cie.) 10 francs.

## Diary of Societies.

*THURSDAY*, DECEMBER 2.

ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 5.—Major G. H. Scott: Airship Piloting.—Flight-Lieutenant F. L. C. Butcher: Airship Mooring.

CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Dr. W. Brown: The Value of Suggestion in Education.

CHEMICAL SOCIETY, at 8.—Sir Prafulla C. Rây: Varying Valency of Platinum with Respect to Mercaptanic Radicles.—H. E. Cox: The Influence of the Solvent on the Velocity of certain Reactions. Part II. Temperature Coefficients. A Test of the Radiation Hypothesis.—K. J. P. Orton and P. V. McKie: Preparation of Chloropierin from Picric Acid and Trinitrotoluenes.

ROYAL SOCIETY OF MEDICINE (Obstetrics and Gynæcology Section), at 8.—C. White: Sodium Bicarbonate Tolerance in the Toxæmias