tion of the industry in this country, with the view of preventing overlapping of effort. A full account is given of the addresses delivered by Lord Sydenham, Sir Algernon Firth, and Sir Henry Newbolt at the annual meeting on June 19. The offices of the Guild are at 199 Piccadilly, London, W.1.

MR. BERNARD QUARITCH, having acquired the stock of "Biologia Centrali-Americana" from Dr. F. Du Cane Godman, is offering the work, either complete or in separate sections, at reduced prices. A prospectus explaining the origin and development of the "Biologia Centrali-Americana," and giving particulars of the contents of each of the sixty-three volumes, has been prepared by Mr. Quaritch, and will be sent to readers of NATURE upon application being made for it to 11 Grafton Street, New Bond Street, W.1.

OUR ASTRONOMICAL COLUMN.

THE PERSEID METEORIC SHOWER.—The maximum of this brilliant annual meteoric shower will probably occur on Sunday night, August 11, and the best period for observation may be expected after midnight. The first traces of the shower were recognised on July 8 by Mrs. Fiammetta Wilson at Totteridge and by Miss A. Grace Cook at Stowmarket. A meteor was mutually recorded by them on that date and found to be a true Perseid, with a radiant point at 8°+49°. Another member of the stream was seen by the same observers on July 12, and the activity of the display has been increasing nightly. On August 5, at 13·54 G.M.T., a splendid Perseid brighter than Venus was seen by Mr. Denning at Bristol traversing a path from 269°+84½° to 230°+65°. With suitable weather there should be a rich display of Perseids this year.

RADIAL VELOCITY OF β CANIS MAJORIS.—In 1908 the star β Canis Majoris, of magnitude 2·0 and type B1, was found by Albrecht to be a spectroscopic binary with the very short period of about six hours. A further study of the star has recently been made by Dr. F. Henroteau, in which special efforts were made to secure continuous series of plates during the same revolutions (Lick Obs. Bull., No. 311). The mean velocity, of +35 km. per second, appears to be constant, but the range of velocity has been found to vary very considerably from one period to another, being sometimes as low as 3 km., and at other times as much as 18 km. per second. This variation in range shows no simple periodicity, but does not seem to be a discontinuous function. It is remarkable that while there is no period which connects and represents the different minima of velocities, a period of 0·25714 day, starting from a given maximum, always corresponds with either a maximum or a minimum of the velocity curve. It has been further noted that the spectral lines undergo a periodic change in width, the amplitude being always approximately the same, and the period 0·25130 day. This variation seems more likely to be due to physical changes in a single body than to the combination of two spectra, but no satisfactory explanation of all the peculiarities of the star has yet been found. Adopting Mitchell's parallax of +0·009″, the star would be about 1000 times as bright as the sun.

RELATIVITY.—A paper by Jun Ishiwara on relativity (Proceedings of the Tokyo Mathematico-Physical Society, second series, vol. ix., No. 16, May, 1918) is based on the assumption that the gravitation potential is completely represented by a scalar quantity ψ; the components g_{hk} of the fundamental tensor of the time-space transformation and the scalar c (velocity of light *in vacuo*) are functions of ψ. It follows that the field-intensity is given by the gradient of ψ in space. The expressions for g_{hk} and c in terms of ψ are found with the aid of Poisson's equation, and the author deduces in an independent manner the same expression for the advance of the perihelion of a planet during one revolution as that already given by Gerber and Einstein, which is known to agree with the observed value in the case of Mercury.

Dr. L. Silberstein demonstrates in Monthly Notices of R.A.S. (May, 1918) that an unexpected consequence of Einstein's theory is that all homogeneous bodies must be spherical; he considered that this was a strong argument against the truth of Einstein's views. Prof. Eddington, in the discussion which followed, remarked that the principal bodies known to us in space do, in fact, approach very closely to the spherical form, and, further, that a perfectly homogeneous body is difficult to conceive, since there must be some differences of pressure, and therefore of density, in different portions of it.

THE SUPPRESSION OF BODY-VERMIN.

A COMPREHENSIVE paper entitled "Combating Lousiness among Soldiers and Civilians," by Prof. G H. L. Nuttall, appears in *Parasitology* for May (vol. x., No. 4). The paper is one of a series which, when complete, will constitute an exhaustive monograph on human lice. It brings together, not only the available published information, but also that resulting from hitherto unpublished research work, partly the author's own, and partly that of others contained in reports to the War Office, which he has been permitted to use. Prof. Nuttall has generously presented a special edition of three hundred copies of the paper to the Allied Armies; and, in view of the recently established fact that trench fever is conveyed by lice, this should prove a very timely gift.

The paper comprises 176 pages, with four plates and twenty-six figures in the text. Most of the pages are devoted to the practical consideration of louse destruction, a great deal of the experimental evidence being given in detail. The results obtained demonstrate that nits are killed by dry heat at 65°–70° C. in one minute, and at 55°–61° C. in ten minutes, the active stages being killed by dry heat at 65°–70° C. in one minute and at 55° C. in five minutes. After allowing for a margin of safety in practice, immersion in hot water at 70° C. for a minute or two is amply sufficient to destroy lice, while 55° C. for ten minutes is equally effective, a point of great importance in relation to the washing of flannel garments.

Singeing, sun-baking, and the use of hot flat-irons are briefly dealt with. The various methods devised for disinfestation by hot air and steam are treated of at length, and illustrated by text-figures of disinfestors improvised for war purposes, together with plates depicting the more elaborate forms of disinfectors designed for use in peace-time. We agree with the author that apparatus designed with a view to high efficiency against the resistive spores of bacteria is not adapted for rapid and economical use against lice. It should be replaced by more commodious hot-air and steam huts, or disinfestors planned on the improvised railway vans said to have been so successful in the East. Designs of this type of chamber should also be adapted for steam or motor lorries, as well as trailers, which could, if necessary, be horse-drawn.

Steam gives results superior to hot air if the destruction of pathogenic bacteria is an object, but dry heat possesses many advantages over steam if the destruction of body-vermin is the end in view. The use of sulphur is treated of at some length. We endorse the author's remarks as to the failure of sulphur vapour to destroy all the nits exposed to it, while its relatively high cost, the danger of injury to clothing, and its slow action are further disabilities of the method.