

had some further acquaintance with deductive geometry in the form of riders and later propositions, though in many cases the proofs have been learnt for purposes of reproduction.

Again, Prof. Carslaw objects to the use of the idea of direction in dealing with parallels and the angle-sum theorem—we should quite agree with him that such a treatment would not be satisfactory in a deductive course, but we differ most strongly from him in thinking that a deductive treatment of parallels, &c., is necessary or wise in the first two years of geometry. The fact is, deductive geometry is not a suitable study for children before the age of twelve, and even at that age it must be a difficult study, and the deductive treatment of congruence and parallels is one of the most difficult parts of the subject, and should certainly not precede the deductive treatment of the parallelogram and the circle. We can only regret that New South Wales has been frightened by difficulties which were bound to arise in a period of transition, into going back to the old methods instead of boldly remedying the evil by helping all teachers to get the spirit of the new methods.

The report goes on to consider trigonometry and mechanics, but there is nothing that calls for serious comment.

R. Y. S.

TSETSE-FLIES AND SLEEPING SICKNESS.

A DEPUTATION representing eight missionary societies at work in Nyasaland waited upon the Secretary of State for the Colonies on November 23 in order to urge that game restrictions should be removed over a whole or part of the protectorate, on the ground that the tsetse-fly was suspected of spreading sleeping sickness, and that the destruction of big game "might" eliminate the fly. In his reply, Mr. Harcourt very wisely deprecated hasty action in a matter in which "the best-informed people were the least positive as to the facts."

It is by no means certain that the destruction of the larger mammalian fauna would have any such effect as the members of the deputation seem to anticipate. In the first place, it is highly probable that the primary host of the trypanosome of sleeping sickness is man, and that if the trypanosome is now to be found in wild mammals in regions in which the disease is known to have been introduced in recent times, it is because it has been transmitted to them from human beings by the agency of the tsetse-flies. Secondly, it is very far from certain that the destruction of the larger mammalia would have the effect of eliminating tsetse-flies, which can suck the blood of any kind of vertebrate animal, and which swarm in parts of the Uganda Protectorate (for example, on small uninhabited islands in the Victoria Nyanza) where there are no larger mammalia. Thirdly, the danger must be reckoned with that to deprive the tsetses of a large portion of their natural food-supply might have the effect of forcing them to supplement the deficiency elsewhere, and might therefore render them much more aggressive towards men and domestic animals, and in this way more efficient in spreading trypanosome diseases.

Everyone with a knowledge of the complicated problems involved in the subject of the transmission of trypanosomes by tsetses will deprecate ill-considered destruction of the big game, an action which, while robbing large tracts of country of one of their most beautiful and valuable features, may very well have the effect of upsetting the balance of nature in a manner that would greatly aggravate the evils which it is desired to combat.

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THE INTERNATIONAL CONFERENCE AT PARIS ON NAUTICAL ALMANACS.

ON the initiative of the Bureau des Longitudes, the directors of the various national ephemerides were invited by M. Baillaud, director of the Paris Observatory, to assemble there on Monday, October 23. The objects of the reunion were to consider what steps, if any, should be taken to extend the scope of the various ephemerides for the purposes of astronomy, and at the same time to effect economy by combined action and interchange of computations. A small number of the leading practical astronomers were also invited to represent the needs of astronomy of precision.

The first general meeting was held at the Observatory at 10 a.m., Monday, October 23. On the motion of Sir David Gill, M. Baillaud took the chair, having on his right M. Bayer, secrétaire de l'enseignement supérieure, representing M. Steeg, Ministre d'Instruction publique.

On the motion of M. Baillaud, Sir David Gill, as président d'honneur du Congrès de la Carte du Ciel, was nominated président d'honneur of the reunion, Dr. O. Backlund, imperial astronomer of Russia, vice-president, and Mr. H. Andoyer, of the Bureau of the Connaissance des Temps, together with the Comte de la Baume Pluvinel, were nominated secretaries. There were present:—Prince Roland Bonaparte (member of the Academy of Sciences); Messrs. Cowell ("Nautical Almanac," London), Fritz Cohn (Berlin), Eichelberger (Washington), Général de Azcarate (San Fernando), Boccardi (Turin), as directors of ephemerides; Messrs. Dyson (astronomer royal, Greenwich), Hough (H.M. astronomer, Cape of Good Hope), Perrine (Cordoba), André (Lyons), Picart (Bordeaux), Verschaffel (d'Abbadia), as directors of observatories; and, as representatives of the Bureau des Longitudes MM. Bigourdan (president), Poincaré, Radau Deslandres, Hanusse.

The meeting was opened with an admirable address by M. Baillaud, and with a cordial speech of welcome by M. Bayer on behalf of the Minister of Public Instruction. After some discussion, resolutions, recommending the adoption as soon as possible of Greenwich mean time as the argument for all predictions in nautical and astronomical ephemerides, were unanimously passed. In the afternoon of the same day the members of the congress attended by invitation the meeting of the Academy of Sciences at the institute, and in the evening were entertained at a banquet in the Observatory, at which M. Steeg, Minister of Public Instruction, was present. The toast of "The President of the French Republic" was proposed by Sir David Gill, to which an interesting and eloquent speech was made, in reply, by M. Steeg. The health of M. Baillaud was proposed by Dr. Backlund.

Further meetings of the congress were held on October 24 and 25, and at the conclusion of the meeting on October 25 a unanimous agreement on all points was reached. On Thursday, October 26, the directors of the nautical almanacs met in committee to make final cooperative arrangements and report to the general congress; their report was unanimously adopted at an afternoon meeting on the same day.

A translation of the resolutions adopted is subjoined. It is impossible to overrate the good will and cordiality which pervaded the meeting, or the kindness and hospitality of our hosts. Besides the official banquet on Monday, private dinner-parties were given by M. Andoyer on the Tuesday, by M. Baillaud on the Thursday evening, the latter followed by a reception; a luncheon and reception were also given on the Friday afternoon by Prince Roland Bonaparte, and