

of Greenwich, Berlin, Paris, and Washington, respectively.

In German geographical maps the meridian of Ferro is used, for the most part, while this meridian does not pass through the *island* of Ferro at all. The so-called meridian of Ferro is assumed to be exactly 20° west from Paris, while the island is only 17° 50' west from Paris.

The new topographical maps of the Prussian land-survey are based on the assumption that the Berlin observatory is 31° 3' 41.25" east from Ferro meridian, while more recent telegraphic determinations place the Berlin meridian 11° 3' 27.9" from Paris.

It is to be hoped that the result of the conference will not be a new international meridian, inconvenient at first for all nations alike.

HORACE ANDREWS.

Albany, N.Y., Oct. 11.

### PSYCHICAL RESEARCH IN AMERICA.

THE adjective 'psychical' has come, through the use made of it by the English Society for psychical research, to be the label for a special class or group of phenomena, which to the unthinking are outright marvellous, even awesome, and to the thoughtful, either interesting or incredible, according to the individual mental cast. A few English scientific men believed that behind all the jugglery and deception of spiritualism there lurked a foundation of reality, perhaps grossly misinterpreted, but still of reality. That belief led to the formation of the active society named above, the work of which has already been noticed in *Science* (iv. 40).

The evidence published by this society goes to show that there are a number of more or less rare psychological effects which are most singular, and so unlike what the orthodox psychology of the day admits, that no explanation of them can yet be offered. The effects are mysterious not only as to their cause, but also as to their nature. One of them, hypnotism, was still scoffed at by the sensible until within a few years, but is now by common consent admitted even into the society of the best phenomena. Another of them, thought-transference, is still begging for a general acknowledgment of its good standing, for there are those who avow their own wisdom through the announcement of an unreasoned disbelief in the transmission of thought from one person to another by any except the ordinary channels: if the transmission appear to occur, it

is to be explained by some trickery, — so say these persons, and they have done with the matter. Now, among others of less prejudiced opinion are a number of American scientific men of acknowledged ability and unquestioned integrity, who maintain that the evidence in regard to this and other psychical phenomena cannot be thus set aside by a vague general accusation, but calls for further and more rigid investigation.

Prompted by the enthusiasm and suggestions of Prof. W. F. Barrett, one of the most active members of the English society, and supported by their conviction of the serious nature and value of psychical inquiries, the gentlemen alluded to above have decided to form an American psychical society to promote systematic study of the obscure and abnormal facts alleged to exist by trustworthy observers.

They join in this enterprise cautiously, having previously satisfied themselves that the testimony is so good that it must be received as raising a series of problems, to settle which would be interesting and important. The occurrence of thought-transference is naturally met at first by sober minds with incredulity; but, now the evidence on the subject is published, mere incredulity no longer suffices: either to prove or to disprove the reality of the transference would be equally desirable. If it be an error, it should be unmasked: if it be a reality, the discovery must appear to us momentous. In any case, there is a plain and interesting scientific duty to be performed.

Psychical research is distasteful to some persons; for it touches upon spiritualism, and to them seems akin to it. Now, spiritualism is an evil in the world, — in America it is a subtle and stupendous evil; a secret and unacknowledged poison in many minds, a confessed disease in others, — a disease which is sometimes more repulsive to the untainted than leprosy. Spiritualism has two supports, — the first trickery and deceit, the second the obscurity and inexplicableness of certain psychological processes and states. It is rational to hope that the first support without the second would soon lose its influence. The strength

of spiritualism is protected by the utter mystery which screens certain mental and nervous conditions from the light of explanation. As of others, so the basis also of this superstition is, in one word, ignorance.

To those gifted with a clearer intelligence and purer moral sense, there is a moral duty in one aspect of the proposed studies. A hope that psychical research may liberate us from a baneful superstition is a stimulus to inaugurate the work of the American society; yet a scientific man cannot calculate all the after-effects of his labor, but must toil for the truth with blind devotion. It will be the endeavor of the new society to ascertain the truth in regard to the alleged psychical phenomena, by means of experiments of unquestionable accuracy, conducted with unprejudiced independence: it will try to steer safely between the Scylla of scoffing and the Charybdis of charlatan spiritualism.

The names of the present leaders of the movement in America are a sufficient guaranty that the investigations will be thorough and serious: we shall await their outcome with great interest, and we hope, meanwhile, that the society will receive liberal public support and encouragement.

#### THE INTERNATIONAL POLAR STATIONS.

Now that the result of the arctic sojourn of the various parties is determined, so far as concerns the safety of their *personnel*, and the manner in which they were able to carry out the programme of the international commission, it may be interesting for the readers of *Science* to briefly review the whole topic. Including Finland, ten countries participated in the work; namely, Germany, the United States, Denmark, Austria, Sweden, Norway, Russia, the Netherlands, Russian Finland, and France. Fifteen primary stations were contemplated, of which two in the southern, and twelve in the northern, hemisphere were successfully established, all of which, it is believed, carried out the observations prescribed by the commission. The several stations were as follows:—

1. Discovery Harbor, Lady Franklin Bay, established by the United States. The party

consisted of Lieut. A. W. Greely, U.S.A., assisted by Lieuts. Kislisbury and Lockwood; astronomer Edward Israel; Octave Pavy, M.D., surgeon; two Eskimo hunters; four signal-corps observers, and fourteen petty officers and enlisted men. This expedition left St. John's, Newfoundland, July 7, 1881; arrived at Disco, July 17, and at their station, which was named Fort Conger, Aug. 12. The position of the station is approximately latitude  $81^{\circ} 20'$ , longitude  $64^{\circ} 58'$  west of Greenwich. The *Proteus*, after landing the party and stores, sailed on her return about Aug. 26. Efforts were made to reach this station in 1882 by a party on the steamer *Neptune*, and in 1883 by one on the *Proteus*, but both failed in the attempt; nor was a suitably large supply of provisions landed for the support of a retreating party when opportunity offered. Aug. 9, 1883, the observations having been carried on successfully, the party in good condition retreated to the vicinity of Cape Sabine, finding an insufficient supply of provisions and no rescuing party. The melancholy result need not be recapitulated. Lieut. Greely and six men, one of whom afterward died, were rescued June 22, 1884, by the relief expedition under Capt. W. S. Schley, U.S.N., in the ships *Thetis* and *Bear*. The remainder perished of want and exposure, except one man shot for theft and mutiny, and one Eskimo accidentally drowned. The exact state of the records of this expedition has not been made public; but it is believed that the international programme was carried out, while a large amount of valuable geographical knowledge was attained.

2. Kingava Fiord, Cumberland Inlet, in latitude  $66^{\circ} 36'$ , longitude  $67^{\circ} 13'$  west of Greenwich, established by the German government. This expedition, commanded by Dr. W. Giese, sailed from Hamburg, June 27, 1882, and arrived at its destination, Aug. 12; the vessel returning Sept. 8, the regular work of the station having begun the previous day, and all the observations in good running order by Sept. 15. The expedition returned to Germany in August, 1883, having carried out the international programme, and obtained valuable ethnological information in regard to the Eskimos, without mishap or serious illness of any of the party.

3. Nain, Labrador, in latitude  $56^{\circ} 30'$ , longitude  $62^{\circ} 0'$  west of Greenwich, established under direction of Dr. R. Koch by the German government. The doctor left Hamburg, July 7, 1882, arriving in Labrador, Aug. 10. Five auxiliary stations were established by the co-operation of the Moravian missionaries, and