

To give an intelligent and fair account of all the work done in recent years in this special field of human activity would require far more space and time than I have at my disposal. On the European continent, in nearly every country, elaborate magnetic surveys are either at present in progress or have just been finished or are in contemplation. The most detailed one that has come to our knowledge is that of Holland, by Dr. van Rijkevorsel, for the epoch 1891.0, embracing 278 stations over an area about equal to that of Maryland or averaging about one station to every 40 square miles. This survey of Holland was especially interesting from the fact that though it was made over an area *superficially* destitute of striking geological features, it nevertheless revealed marked disturbances. The author sums up his conclusions thus: "Little even as we know about the geology of the Netherlands, the magnetic maps must bring every one to the conviction that in some cases, in many perhaps, there must be a direct relation between geology and terrestrial magnetism, and that many of the magnetic features must be in some way determined by the geological structure of the underground. What these geological features might be we are at present unable to tell. What kinds of rock may be hidden at a depth of 300 metres or more under the peat bogs and heaths of the Netherlands, and the clay, sand and pebbles immediately underlying these, we do not know—rocks which, although under ground, are yet perhaps in some places so near the surface as to be an effective barrier against the inroads of the sea, which has fair play in other districts. It is for geologists to tell us. Magnetism will, in many cases, if carefully employed, be able to say to geology: 'There is something hidden on this particular spot, it is for you to tell us what it is.' This does not mean that every magnetic feature must needs have its counterpart in a geological one, still less the reverse. For we know perfectly that not every mineral is magnetic, or capable of being magnetized, and therefore rocks of any size may exist for which our needles show a supreme indifference.

netic Lines.—II. On the Accuracy of the Determination of the Local Disturbing Magnetic Forces.—III. On the Relation between the Magnetic and the Geological Constitution of Great Britain and Ireland.