EVERY SATURDAY: AN ILLUSTRATED JOURNAL OF CHOICE READING.

which was allowed to remain nine feet four inches likewise above the water. The ob­

servations were made by means of a large telescope (four-inch object-glass), and also

measuring area of the meridian, and that of deflecting the form of the earth from the oce­

The flag and the boat down to the water's edge were clearly visible throughout the whole
distance, so that he concluded if the surface of the water had risen as above mentioned, he
could not have seen the boat at all. We have neither the space nor the inclination now to
Mr. Hampden in the far-fetched theories contained in his volume. This gentleman, in 1865, published a book to prove that the earth is a plane, without motion, and unaccompanied by anything in the form of the earth analogous to the form of a canal, river, or lake.
The spot chosen was that portion of the Old Bedford Canal between Old Bedford Bridge and
Welney Bridge, a distance of six miles. Mr. Hampden says he tried the following ex­
eriment. In the Old Bedford Canal, Cambridgehire, a boat and flag was directed to

in England. The length of degrees of the meridian in different latitudes is given in Table
of Mrs. Somerville's "Connc­

Homer considered the world as flat. Mr. Gladstone, in his "Studies of Homer and the Homeric Age," states that in Homer's estimation the form of the world was not circular, but oval, having a shorter diameter from east to west than from north to south. In the map he gives, it is a parallelogram with rounded edges, like the oblong shield then in use. The merit of the discovery of the spherical form of the earth is due to the Pythagoreans, who came to the conclusion from astronomical observations; but it is uncertain whether Pythagoras himself was aware of this truth. It was not re­ceived generally in Greece until the age of Plato. The Arabs speculated on the spher­
ical form of the globe, and the caliph, Almu­

The observa­
vation of the Physical Sciences," eighth edi­

At three miles' distance along the canal (we quote from the report of Mr. Car­

penter, Mr. Hampden's referee), a staff was erected, having a red disc of wood one foot

inches above the water, or four feet lower than other.

The result was, that in each of these cases, one taken from Welney Bridge, and the other from Old Bedford Bridge, with the large achromatic telescope, the two discs of the central staff appeared above the water; and the two discs of the signal staff were seen above the other bridge, showing that the signal-staff in the centre was higher, and thus proving the convexity of the water. Similar results appeared with the telescope of a sixteen-inch Troughton, revolved in the same position. The umpires, of course, could not agree, and the editor of the Field was called in as referee. He decided that Mr. Wallace, by means of the experiment agreed on, has proved to his satisfaction the "curvature to a foot and a half" of the Bedford Ca­

to the extent of five feet or less. He therefore paid Mr. Wallace three thousand pounds that had been lodged at Coutts's Bank.

Mr. Wallace, in a letter to the Field (April 2, 1870), commenting on Mr. Carpenter's remarks in his Report, says that that gentle­
man objects to the value of the view in the large telescope "because it showed but two points, when a comparison of the water three miles off was six feet, and at six miles, twenty-four feet, lower than the water's level,所以说 which is something less than twenty-four feet. The three points deviated in a verti­cal direction very nearly as much as the required by the assumed dimensions of the earth, so that we may infer that the water's level telescope line is a tangent to a circle, approximately the circle of the earth. Mr. Vernon says, if the telescope in this experi­ment had been laid exactly at right angles to a plumb-line dropped from its centre, it would have been found that the surface of the water three miles off was six feet, and at six miles, twenty-four feet, lower than the water's level, or four feet lower than other.

In the Old Bedford Canal between Old Bedford Bridge and

Welney Bridge, a distance of six miles in a straight line.

The experiment came off March 5, 1870; and an oblong signal, six feet by three, was placed on Old Bedford Bridge, its centre being thirteen feet four inches above the water. At three miles' distance along the canal (see quote from the report of Mr. Car­
penter, Mr. Hampden's referee), a staff was erected, having a red disc of wood one foot in diameter, the centre of which was also thirteen feet four inches above the water. From Welney Bridge, three miles farther, a third signal was placed, reaching above the other bridge, showing that the signal-staff in the centre was higher, and thus proving the convexity of the water. Similar results appeared with the telescope of a sixteen-inch Troughton, revolved in the same position. The umpires, of course, could not agree, and the editor of the Field was called in as referee. He decided that Mr. Wallace, by means of the experiment agreed on, has proved to his satisfaction the "curvature to a foot and a half" of the Bedford Ca­

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