pounds his theories in a language full of incomprehensible cant, glorying in paradoxes, flying from one topic to another at a most erratic gait, and beginning and ending nowhere. The whole is strongly suggestive of a semi-morbid condition of mind, and will probably have a charm for minds of neurotic temperament that delights in the apparent and exclusive possession of an un-understood mystery. The redeeming point of the volume is its refusal to ally itself with coarse, physical deceptions, and thus gives no opportunity for preying upon the liberality of the credulous.

— The changes in the elevation of the Caspian Sea and the Baltic have been discussed by Dr. Brückner in a lecture delivered at the meeting of the German Meteorological Society at Karlsruhe, and by W. Seibt ('Das Mittelwasser der Ostsee bei Travemünde'). Both authors show by their separate methods that the influence of the wind upon lakes has been overrated, and that the annual rainfall regulates the amount of water in lakes and seas communicating with the ocean through narrow channels. The amount of water carried by the Volga regulates the elevation of the surface of the Caspian Sea, and the same is the case with the Black Sea and its affluents. Brückner shows that the easterly winds of May and the westerly winds of July and August have an influence upon the Baltic, but the thorough discussion of the gauge observations at Travemünde by W. Seibt proves that only in April, May, and September the height of the water corresponds to the direction and pressure of the wind. It appears that the volume of water of the Baltic is subject to periodical changes. While Brückner believes that this is entirely due to the changes of the annual rainfall, Seibt concludes that a periodical annual tide exists in the ocean, which is observed only in seas in which the daily tide is insignificant.

— Over 60,000,000 caterpillar-cocoons were destroyed on the trees in Washington during the spring, so that the city will not suffer from this pest this year as badly as formerly.

— U. S. Consul Siler at Cape Town, Africa, has sent to the Department of State an interesting report on leprosy in South Africa. He says that he has recently read in American papers of the existence of leprosy on the Pacific coast, with expressions of fear that the disease may become general. The disease, he states, is not uncommon in South Africa.

— The sitting statue of Bowditch the navigator, executed in 1847 by Ball Hughes, and long one of the most celebrated monuments in Mount Auburn cemetery, Cambridge, has just been replaced by a new casting from the foundry of Gruet jeune of Paris, the old showing some signs of injury due to defective founding.

LETTERS TO THE EDITOR.

*** The attention of scientific men is called to the advantages of the correspondence columns of* SCIENCE *for placing promptly on record brief preliminary notices of their investigations. Twenty copies of the number containing his communication will be furnished free to any correspondent on request.*

The editor will be glad to publish any queries consonant with the character of the journal.

Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

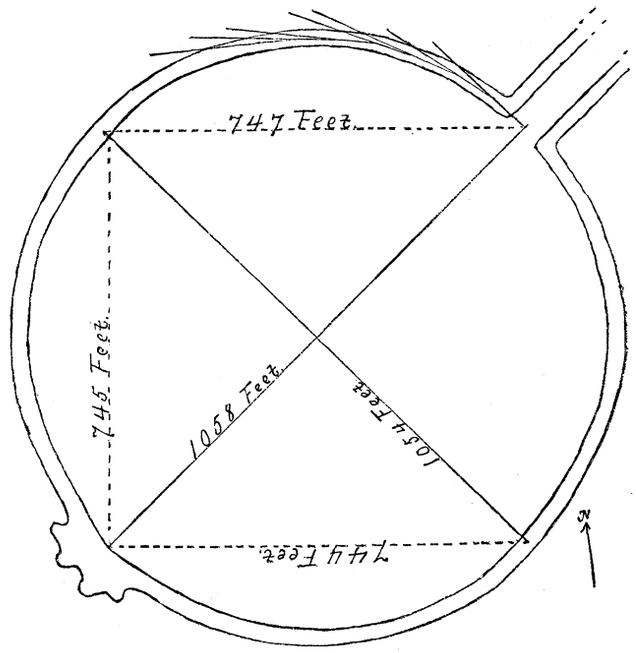
Ohio Mounds.

HAVING recently made a survey on behalf of the Bureau of Ethnology, of some of the circles of the ancient works of Ohio, I wish to call attention, by permission, to one or two facts brought to light.

This can best be done by an illustration, for which purpose the 'Observatory Circle' of the works at Newark, Licking County, is selected (see 'Ancient Monuments,' by Squier and Davis, Plate xxv. F.).

Running this by means of short chords of seventy-five feet in length, taking the middle line of the top of the wall, I found the number to be 44, and twelve feet in addition, or the perimeter of the polygon 3,312 feet. The course of each chord was taken. While the variation from one to the other, if the figure were a true circle, should be about 8° 9′, it was found to vary from one to fifteen degrees. But, somewhat to my surprise, it was found that these variations compensated each other in short distances, so that in measuring the quarters they almost wholly disappear, the angle of the first quarter being 44° 52′, and its chord 747 feet; the angle of the second quarter 45°, and its chord 745 feet; of the third quarter, 44° 52′, and the chord 744 feet; the fourth quarter was not measured owing to obstructions. It is therefore apparent that the figure as a whole is very near a true circle.

But the most singular fact is presented by the diameters. These, as taken by careful measurements from the quarter-stations, are



respectively 1,054 and 1,058 feet, the average of which is 1,056 feet, precisely sixty-four poles, or sixteen chains.

As there are several other circles of the size, this singular coincidence is, to say the least, interesting. JAMES D. MIDDLETON.

Youngsville, Penn., June 22.

Waterspouts.

BELIEVING that every natural phenomenon, especially when unusual or little studied, is worthy of record, we have put down a few notes about a series of waterspouts which passed here on Monday, May 23, shortly after noon. One of us saw at one time, from an elevation of about one hundred and fifty feet, as many as nine in various stages of their formation; the other, eight, at an elevation of fifty feet, we being about half a mile apart; and some persons claim to have seen twelve in all.

Alassio is situated on a bay, or rather roadstead, which is about five miles from headland to headland in a straight line: from that line to our villas is at least two miles.

On the 22d there was a severe storm throughout north Italy, extending from Padua to Turin, accompanied by hail and frost. The mountains behind Genoa, and all along the coast, were again covered with snow. This storm appeared to divide, and while going through the mountains to the north, not seen from here, passed us about three miles out at sea, at about 11 A.M. Then there was no wind; the sea was unusually smooth in the bay, but the line of the storm was strongly marked, and the roaring of the waves was distinctly heard. A little later we had a very slight shower.

The morning of the 23d was unusually electrical, so much so as to make every one feel uneasy and restless. The wind dropped, and there was a dead calm. At a little after twelve we were called out by our gardeners and servants, and, looking out at sea, saw a long black cloud lying in a straight line across the bay, from which long descending tubes — some straight, as if drawn with a rule, others twisted like snakes — were moving rapidly in procession in a south-westerly direction. The surface of the sea boiled, and the foam and spray rose many feet into the air with a loud roaring plainly heard on land. In some cases, as these tubes approached the sea with their dangling ends, the water seemed gradually to rise and meet them. In other cases the ends swayed to and fro above the waves, either forming no connection with them, or having already begun to break up. In nearly every case the