contained a fine living *Panthalis*, which was successfully transferred to a small tank provided with a supply of the fine mud in which the animal lives. This worm has been kept under the closest observation by Mr. Watson and his son during the whole daytime and part of the night for the past week, and their care and enthusiasm have been rewarded by the collection of a number of drawings, photographs, and notes of the appearance and movements of the animal. During that time the *Panthalis* has deserted its old tube, and has formed a new one in the mud, fortunately using the glass of the tank for part of one side, so that the processes of scooping out the mud and of putting on the lining of mucous threads, and the various movements of the animal, have been readily enough seen—if one does not mind the inconvenience of lying for hours in a cramped position on the damp concrete floor of the aquarium room. The worm, and Mr. Watson, are still alive and at work, and we may expect a detailed account of their mutual labours from the latter when his observations are completed.

W. A. HERDMAN.

Port Erin, August 31.

Symmetry of "*Aurelia aurita*."

DURING the last few months I have seen countless thousands of living specimens of *Aurelia aurita*, and have paid special attention to abnormal varieties. I have found not only such as have throughout the five-fold symmetry, seen by Mr. Unthank at Brightlingsea, as named in NATURE for August 22, but have with me on the *Glimpse* specimens stained and mounted as lantern slides having entire three-fold and entire six-fold symmetry, and one in which it is partially two-fold. I think it may be said that in Suffolk and Essex, a few such abnormal varieties occur per thousand of the normal. An imperfect four-fold symmetry is much more common.

H. C. SORBY.

Yacht *Glimpse*, Burnham, Essex, August 31.

MARS AS HE NOW APPEARS.

STATISTICS are looked upon, as a rule, as hateful things, but nevertheless it would be interesting to know how many people out of the millions who walk this globe will turn at this period a telescope, however small it may be, in the direction of the planet Mars, which is shining so brilliantly in our eastern heavens. Times there were, no doubt, as for instance in the early Babylonian and Egyptian civilisation, when Mars was more generally the subject of scrutiny than to-day, but then the appearance of this intermittent and gradually brightening object made far different impressions on the minds of those early observers. Early it was that the peculiar coloured rays cast by his shining surface on this earth were first remarked. He was known to the Greeks and Hebrews as the fiery planet, and in Sanskrit he was referred to as like "burning coal."

To-day, however, the case is quite different. Many there are who may happen to notice an object more brilliant than usual in the heavens, and make some brief allusion to the fact, and trouble himself or herself no more about it, but it is to the increasing few that his appearance is of the greatest interest. To those who have once made use of even a small telescope to observe the planets, the fact that the nearest, and, it may be added, the most interesting, of them, namely Mars, is approaching us day by day, will be certain to raise a strong desire to catch another glimpse of his disc under such favourable conditions.

So much has been written about the markings of his surface, which represent huge areas of water and land, to say nothing of the most curious network of canals, that reference only to the very recent work on them will here be dealt with.

A few brief remarks, before proceeding, as to the position of the planet in the heavens, and to the approaching opposition.

Firstly, as to position. At the present time Mars is moving easterly in the heavens, situated at the southernmost corner of the constellation of Aries. By September

15 he will have reached his most eastern point; and from that time he will turn in his loop, and continue his apparent journey in the westward direction, passing into the neighbouring constellation of the Fish.

The following table will perhaps be useful to those who have not the data at hand. The times referred to are Greenwich mean time.

Date.	R.A. Noon.	Decln. Noon.	Diam.	Rises.	Transit.	Sets.
	h. m. s.	° ' "	"	h. m.	h. m.	h. m.
Sept. 8 ...	2 14 36	9 37 N	21.8	8 6	14 59	21 52
18 ...	2 15 48	9 49	23.4	7 30	14 24	21 18
28 ...	2 11 15	9 42	24.9	6 46	13 40	20 34
Oct. 8 ...	2 1 30	9 16	25.6	5 59	12 50	19 41
18 ...	1 48 38	8 41	25.7	5 10	11 58	18 46
28 ...	1 35 38	8 9	24.6	4 21	11 6	17 51
Nov. 7 ...	1 25 29	7 51	22.8	3 29	10 16	16 55

The fact of Mars being the first superior planet reckoning from the sun, his opposition, or in other words, the position in which he is to be found in his orbit when on the same side of the sun as the earth, with all three bodies in a straight line, affords us a good opportunity for studying his surface features. Owing, however, to the non-concentricity of planetary orbits, his distance from the earth at these times is always varying, and this explains why some oppositions are more favourable for observation than others. The nearest approach of Mars to the earth may be approximately given as 35,000,000 miles, his distance at the coming opposition exceeding this number by about 5,500,000 miles.

In consequence of these varying distances, the apparent size of his disc is undergoing changes; thus the conditions at each succeeding opposition are rarely the same.

That the coming opposition is a very favourable one, can be seen from the table given below, and that it will be more favourable than that of 1892 for observers on the northern hemisphere is due to the planet's more northern declination at this period, bringing him above the mists which spoil good seeing near the horizon.

Date of Opposition.	Semi-diameter.
1862 October 5 ...	10.8
1869 February 13 ...	8.2
1873 April 27 ...	9.7
1877 September 5 ...	14.7
1891 December 26 ...	9.2
1884 January 31 ...	8.3
1888 April 10 ...	9.2
1892 August 13 ...	14.7
1894 October 20 ...	12.9

Let us turn our attention now to the observations that have been made up to the present time, and see what has as yet been learnt from a study of the Martian surface. The work to which we are now about to refer hails from the Lowell Observatory, Flagstaff, Arizona, and the observations have been and are continually being made by its founder, Mr. Percival Lowell, who has set his observatory on this spot for the single purpose of carefully studying the surface of Mars during this period of opposition. The old saying that the early bird gets the first worm, can be applied with some force to Mr. Lowell, for he has been rewarded with ample satisfaction for commencing his observations at such an early date. Indeed, perhaps the great value of this series of observations which he is making will be in its very length, for is he not, from a study of his own observations, watching attentively the various stages of a vast aquatic display which becomes more and more distinct the nearer the earth is approached, and therefore must be continually and for a long period observed?