THE READER.
11 FEBRUARY, 1863.

invention; for it is obvious that a means is thus most conveniently applied to photography to serving even to godfathers, as our friends across the sea are doing, and at so small a cost, and with some success, although they have not had the advantage of the pantoscopic lens. Thus two views—taken from the extremities of a measured base, with compass bearings of some of the more prominent objects thereon, and from the opposite side mapping of a region possible in inches; the field-work being limited to a few observations with a theodolite, and the taking of the view. That the pictures are monumental, and artistic and photographically excellent as well as useful we venture to assert with Mr. Mayall, in spite of some critical remarks in the Morning Post. We venture to think, however, that some of the remarks made at the meeting of the Photographic Society, were more curious than satisfactory. One gentleman is reported to have said that he would represent nature not as in panoptic perspective but in its own perspective, preferring a line picture to a panorama, and he would not extend the view laterally, but lower it or raise it vertically. This is curious rather than satisfactory. Of course this gentleman may cut up the panoramic pictures, or Turner's even, so as to include this point of view, if he finds it the most convenient. In some of the unaided, at all events—such a process would be more like spelling a picture than producing one.

In the Morning Post he writes that the new process is based on some of nature's masterpieces by shore and river and mountain. By this means they may include a large number of objects in line drawings or panoramic photographs, that they 'were bits of pictures,' but they will as assuredly earn the thumps of all true artists.

SCIENTIFIC NOTES.

The Scientific Review and Journal of the Inventors' Institute is the name of a new monthly periodical announced by Messrs. Cassell. Its objects are to record briefly and faithfully from many parts of the world the events of the day at home and abroad. It will moreover be the accredited organ of the "Inventors' Institute." The first number is to appear at the beginning of next month.

We learn from The Nautical Magazine that a signal for the laying down of the new harbor of Melbourne. Two 22-pounders have been mounted at the Melbourne University, and at one p.m., each one will ring a bell and those places is discharged. At 4 p.m. the discharge is timed by a chronometer, but as soon as a wire can be laid down it will be wired from the Observatory by electricity.

An extremely interesting result of the Nobel Prize has been reported and endorsed by the celebrated chemist, Wöhler. A metallic stone fell on May 14, 1863, at Osnabrug, in Prussia, and was observed to have a peculiar odor. The stone, that besides the usual inorganic constituents, it contained 6 per cent. of a black amorphous organic substance—a kind of humus, which consisted of the organic elements, carbon, hydrogen and oxygen, in proportions quite similar to those in which they occur in Nitrogen and peas. Wöhler reports other cases of somewhat similar character, but none so conclusive as that just mentioned. The people of Osnabrug are sitting up all night, that no doubt appears to exist, that whenever meteorites come from organic matter, and hence probably organically formed organisms in future. In this connection we should certainly voluntary and decomposable substances is not inconsistent with the fact of their living in the air, as the organics of organic life.

Darwinian hypothesis and of the reception it has met with among men of science.

The third volume of Dr. Huxley's work did not apparently refer to Darwin was perfectly clear to every one, but the very point of my objection was, that the Reviewer himself applied it to Darwin—first by his statement that 'development' or 'origin of species' by natural selection 'was the very title of Dravins's hypothesis,' and then by his assertion that 'the whole domain of science,' and then by adding him: "Do not think anything in this exact science is likely to be acknowledged as "truth,"" and "it can be said, so and so, and no more."" This is not making Dr. Huxley's words refer to Darwin's doctrines as well as to Lamarck. Again, the Reviewer's own extracts from Mill's Logic (the meaning of which I think I fairly gave in my first letter) are quite complete, for the man, who, in the opinion of one of the first thinkers of the age, has produced 'an inexpressible example of a new and strict method of scientific knowledge and ingenuity, must certainly have reasoned logically and well, and cannot honestly be said "good as anything,"' the abased, wretched, which the Reviewer has applied to Darwin or his work.

The continued opposition of a few of our old catted geologists cannot be held to prove Darwin's 'utter abdication of geology,' still less that 'nothing of importance has been added to the geological states are so lost that no traces of them can be found.' The Reviewer may find something that few have seen. If the Reviewer is a geologist and has read in the annual addresses for 1863 and 1864 of the late President of the Geological Society, Professor A. R. W. has these facts to prove that in the Paleozoic series alone there are ten distinct breaks in the succession of strata, each probably involving a longer period than that which has been called the great division of time; and then states his opinion that 'each of these breaks implies a less epoch.' In the same address he says that the two great breaks of the Carboniferous period are only, and then states his opinion that 'each of these breaks implies a less epoch.' In the same address he says that the two great breaks of the Carboniferous period are only, and then states his opinion that 'each of these breaks implies a less epoch.'

The Reviewer has mention of non-scientific argument of descent with modification.

We have purposely avoided introducing new sub- jects; for we think it would show that, however hard the 'British Quarterly Review'er may have succeeded in hitting his enemy, even a moderate charge in my first letter. A. R. W.

THE PROBLEM OF MALMÖT'S COPPER.

Royal Institution, Feb. 9.

Among the 'Scientific Notes' in your paper for January 28 there occurs the following paragraph in connection with the exposi-

We should, however, remark that there is a very common experiment in which a needle is covered with copper, and placed in a vessel containing copper wire, in opposition to the force of gravity, upon a gradual current being sent through the coil. Such a mixture is often quoted by essayists in scientific works. Professor William Thompson, in a note of December 27th, 1864, (Journal of the Academy of Arts and Sciences, July 20, 1869, writes as follows: — It is, I believe, often thought that this problem (the suspension of 'Malmö's copper') is solved in the experiment by the action of the wire in the hold with its axis vertical; but I have convinced myself that the needle always touches somewhere a part of the wire. There can be one point in the wire, or on the wires of the helix, and I have also ascertained that, when a powerful helix is used with a needle in the horizontal position, that if it be very little less in diameter than the inner cylinder surface of the helix, there is never observed in the needle a single wire. I have myself made many experiments on this subject, and they entirely agree with Professor Thompson's statement. There is no question about the action of the wire on the problem of Malmö's copper, and which was performed by Professor Tulpahl in one of his lectures. Professor Tulpahl referred the experiment in the first place to Franklin, it having been afterwards revived by M. Scherzer of Paris. Of course it was not necessary to do it with a needle, but it is much more convenient to use one. The wire, when detached, it sprang towards the knob, but stopped within two inches of it, and

remained hovering in the air. Its tail waved like the tail of a fish, and when a point projected from the upper part of the helix, the wire, carried through the room, was followed by the fish, which continued to swim in the presence of the knob for nearly an hour. A piece of the needle of gold the same experiment may be made.

W. F. Barret.

PROCEEDINGS OF FOREIGN ACADEMIES.

VIENNA.

Academy of Sciences.—Jan. 11.—Baron Sauerstoff, the founder of the Society for Antiquity Discovered on the Lungs bend near Neut- stadt. He remarked on the careful study of the monuments objects in bronze as forming almost the sole source of our acquaintance with the civilization of pre-Roman times in European countries. The objects which were found included five articles were imported or of home-manufacture, is the main point to which these investigations should be directed. He thought the most ancient of these objects and to the finest workmanship. The second discovery is quite of a different nature. In the course of last summer, an old copper coin was found in copper amongst pebbles at a considerable height on the mountain; these included eight objects which in this case were of a different character, two twisted strands, and two massive pieces of primitive form, numerous tubuliform ornaments, some of the engrainment found in Roman glasses have served for adorning the head, and lastly two discs of gold or silver and twenty ducats in weight on the lump bend, a long rocky mound, near Neustadt, may be divided into two groups. Thirty years ago very, largely used in Roman times, or even the most ancient period, for the finest workmanship. The objects evidently formed a treasure which had been buried by its former possessors at some time in the distant past, and for this reason the whole of the objects of the second find consist of unlaid copper, would seem to indicate that in the course of years of gold; but articles of unleaved copper occur with bronze articles and resembling them in form through the centuries. The bronzes, however, the use of copper may be due only to an accidental deficiency of tin. The author thinks that the circumstance may not have been a mere accident, but that the original did not seek a substitute for the semi-precious stone.

The objects may have been imported or produced under the direct influence of southern civilization, and that the copper articles and golden discs were the precious gold and silver coins.

Jan. 12.—Dr. W. Tannus communicated a memoir on 'The Peripheral Circumference and Termination of the Central Nervous System.'

Jan. 19.—Dr. I. F. Schwan of Vienna presented a memoir entitled 'Discussion of the Various Hypotheses of the Steam.'

Dr. Keck communicated 'Critical Remarks on the existing Theories of Sound, with indications of new modifications.'

On the Division of the Upper Tens in the Lombard Alps,' in which he maintains his own previously published views on the angular position of the triangle by M. Feigen and Cornazia.

Papers were read by Dr. All.heim on 'The Methods of Measurement of Twin crystals by Means of the Meridian and the Circumference of the Triangle by Its Three Heights,' and by Dr. E. Weis. On the Determination of the Course of the Sun's Declination by the aid of the Sun's altitude and the latitude of the place of observation of this planet, which has never been seen since the year of its discovery (1610), Dr. Weis adopted the hypothesis that the most probable of which its opposition will fall on the 24th of the present month, when the astreid will be in the brand of the belt of the 0.5 times 10^7 magnitude. For the guidance of observers Dr. Weis gives a table of the probable positions of Mars during the months of February and March, which is in accordance with each of his three hypotheses.

REPORTS OF LEARNED SOCIETIES.

ROYAL SOCIETY.—Jan. 12.—Major-General Sage, President, in the chair. The following communication was made by Mr. E. Jevons of the observa-

R. B. Smith and W. H. G. B. Smith. The observer carried out the calculations of Atmospheric Electrivity at King's College, Liverpool, S. N. S. No. II., by Professor P. J. J. N. Smith. The calculations were communicated by Professor William Thomson, F.R.S. The author's former paper communicated the sit-