- Safety Apparatus for Steam Boilers.** By A. D. Bache, Professor of Natural Philosophy and Chemistry, University of Pennsylvania.
- Historical Notes.** By A. D. Bache, Esq. &c.
- Expérimental Illustrations of the Radiating and Absorbing Powers of Surfaces for Heat, &c.** By A. D. Bache, Esq.
- Experiments on the alleged Influence of Colour on Radiation.** By A. D. Bache, Esq.
- Replies to a Circular in relation to the occurrence of an unusual Meteoric Display on the 13th November 1834, addressed by the Secretary of War to the Military Posts of the United States.** By A. D. Bache, Esq.
- Notes and Diagrams illustrative of the New Brunswick Tornado.** By A. D. Bache, Esq.
- On the Magnetic Dip at various places in the United States.** By A. D. Bache, Esq.
- On the relative Horizontal Intensities of Terrestrial Magnetism at several places in the United States.** By A. D. Bache, Esq.
By the Author.
- Report on the Geological Survey of the State of New Jersey.** By Henry D. Rogers, Professor of Geology and Mineralogy, &c.
—By the Author.
- Report of the Managers of the Franklin Institute of the State of Pennsylvania, for the promotion of Mechanic Arts in relation to Weights and Measures.**
- Report of the Committee of the Franklin Institute of Pennsylvania, on the Explosion of Steam-Boilers.**
- General Report on the Explosion of Steam-Boilers, by a Committee of the Franklin Institute of Pennsylvania.**
By the Franklin Institution.
- Report of the Geological Reconnaissance of the State of Virginia, made under the appointment of the Board of Public Works.** By William B. Rogers, Professor of Natural Philosophy.—
By the Author.

The following Communications were read :

1. On the Condition of the Earth, as it is first described in the Mosaic Account of the Creation. By Mungo Ponton, Esq.

In this paper, the author confined his attention principally to

those words of the original, which, in the received translation, are rendered "without form and void." He considered that, in a philological point of view, the most correct translation is "vastness and emptiness," or, in the adjective form, "immeasurable and imponderable."

The bearing of the most recent philosophical discoveries, and of the opinions of natural philosophers and geologists, upon the interpretation of this passage, formed the next subject of inquiry. It was stated that there are three prevailing opinions in regard to the Mosaic account of creation, arising out of three different views with respect to the period when those strata were formed which contain organic remains. One opinion is, that these strata were formed at a period altogether antecedent to the events described in the second and succeeding verses of Genesis. A second opinion is, that the strata were formed during the very epoch embraced in the Mosaic narrative; and a third, that they were formed subsequent to that epoch. In both of the latter views, the description of the state of the earth is considered as applicable to its original condition when first created. The author seems to lean to the second opinion, and infers that the primitive condition of the earth was probably gaseous.

2. On the Result of Experiments on the Weight, Height, and Strength, of above 800 individuals. By Professor Forbes.

These experiments were made upon students in the University of Edinburgh, chiefly between the ages of 14 and 25, and were intended to illustrate the general inquiry as to the law of physical development with age, but more particularly to afford data for instituting comparisons between different nations. For this purpose, throughout these experiments, natives of Scotland, England, and Ireland, were distinguished; and though the numbers belonging to the two latter countries were comparatively small, still the general coincidence of results, as to the three elements of weight, height, and strength, gives some confidence even in that part of the inquiry.

The weights were expressed in pounds including clothes; the heights in inches, including shoes; the strength was determined in pounds by Regnier's dynamometer.