clay, are D shaped, $7\frac{1}{2}$ ft. long, 20 in. wide, by $7\frac{1}{2}$ in. high. Each retort is calculated to have produced 1,800,000 cubic feet of gas, and there is every prospect of their making 2,000,000 ft. each of gas before they are worn out, without any increase in the expenditure of fuel. The manufacturers of these excellent specimens of fire-clay retorts are Messrs. Cowen and Co., of Blaydon Burn, near Newcastle-upon-Tyne.

Translated for the Journal of the Franklin Institute.

Note on a Method of Preserving Vegetable Alimentary Substances. By M. MASSON, Chief Gardener of the Central Horticultural Society of France.

After long researches, the first of which were ten years ago, the author has arrived at a simple and very practical method for drying vegetable substances, without altering their constitution, and for reducing them to a very small volume without losing their flavor and nutritious properties.

The process consists in drying them at a low temperature in stoves heated to about 95° Fahr., and in a very powerful compression by hydraulic press. The first operation deprives the substances of the superabundant water which is not indispensable to their constitution, and which for certain vegetables, such as cabbages and roots, amounts to more than 80 to 85 per cent. of their weight in the fresh state. The second reduces their volume, augments their density, making it equal to that of pine wood, and thus facilitates their preservation and stowage. To all vegetables thus prepared, it is sufficient to soak them in warm water from 30 to 45 minutes, when they reabsorb all the water which they had lost; they are then boiled for an hour or two, according to their nature, and seasoned in the usual way.

A number of experiments, made by the Navy Department, and detailed in reports, copies of which the author submits to the Academy, establish the quality and perfect preservation of these products after voyages of four years. In the space of 1 cubic metre, (a cube of 3.3 feet on each side,) 25,000 rations may be held.—(*Comptes Rendus de l'Academie des Sciences*. 17th March, 1851, p. 372.)

FRANKLIN INSTITUTE.

Proceedings of the Stated Monthly Meeting, May 15, 1851.

S. V. Merrick, President, in the chair.

John F. Frazer, Treasurer.

Isaac B. Garrigues, Recording Secretary.

} Present.

The minutes of the last meeting were read and approved.

Donations were received from The Royal Astronomical Society, London; A. C. Morton, Esq., Portland, Maine; W. Milnor Roberts, Esq., Marion, Ohio; Frederick Graff, Esq., Charles E. Smith, Esq., Oliver Byrne, Esq., Abraham Hunt, Esq., and the Apprentices' Library Company, Philadelphia.

The Periodicals received in exchange for the Journal of the Institute were laid on the table.