

Scientific American

A WEEKLY JOURNAL OF PRACTICAL INFORMATION IN ART, SCIENCE, MECHANICS, CHEMISTRY AND MANUFACTURES.

VOL. VIII.—NO. 18.
(NEW SERIES.)

NEW YORK, MAY 2, 1863.

{ SINGLE COPIES SIX CENTS.
{ \$3 PER ANNUM—IN ADVANCE.

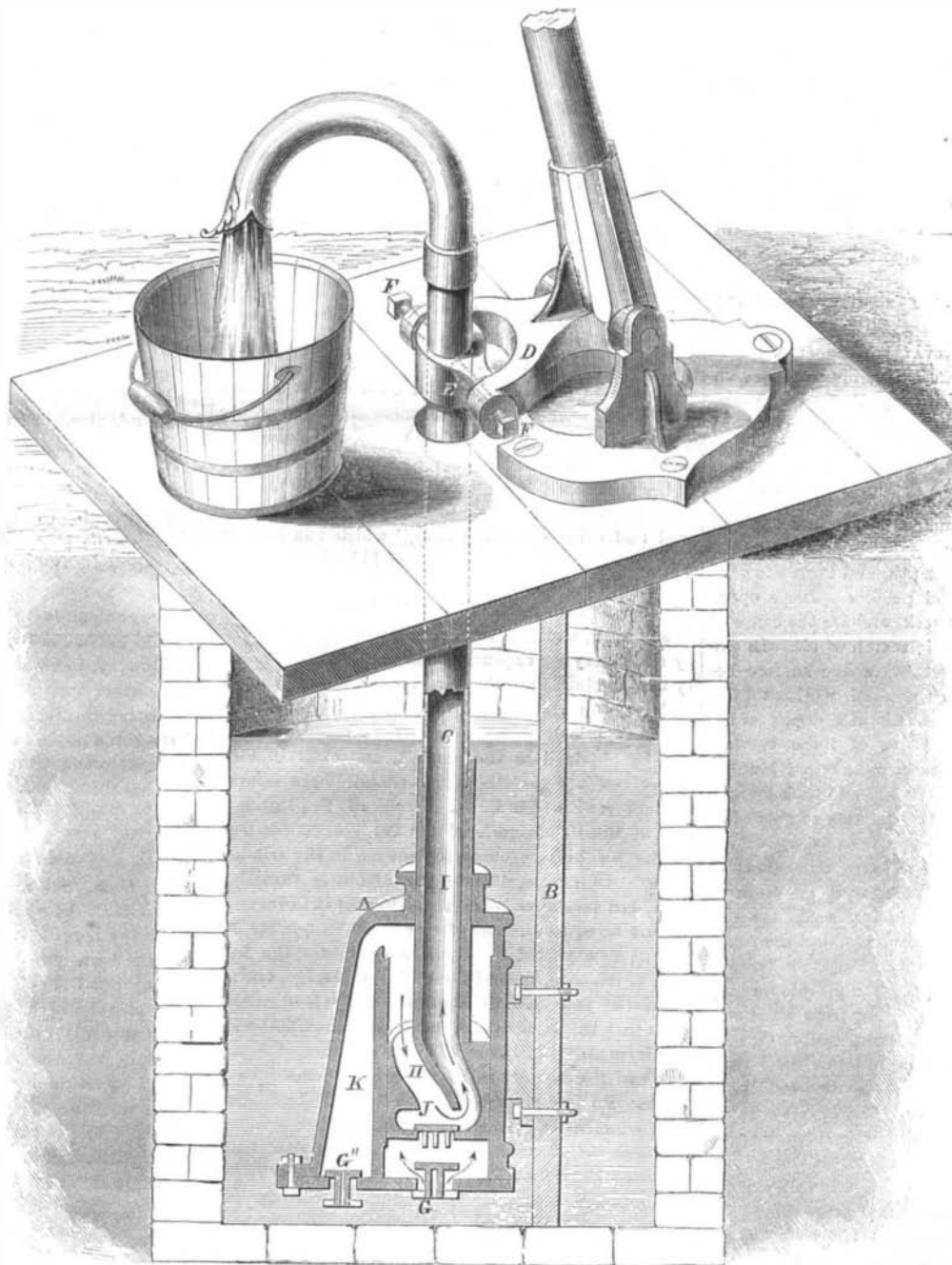
The Ohio Pump.

Herewith we illustrate a pump of novel construction and design. The inventor styles it "The Ohio Pump." The principal features of this invention are herewith explained:—The pump, A, is immersed in the well, and secured there by bolts to the timber, B. The casting is provided with the hollow piston and rod cast in one piece. There are two valves in the bottom of the pump casting, and one in the piston itself; these connect by the passages with the hollow rod and eduction pipe, C. The working gear of this pump consists of a lever operating the bell-crank, D; the bell-crank is forked at one end, and embraces the crosshead, E. In this crosshead the set screws, F, are tapped; they thus secure the piston rod and the working gear, and furnish a bearing on which the bell-crank arms work. When the lever is worked on the up-stroke, the water rises into the chamber through the valve, G, and the contents of the cylinder above are compelled to escape through the channel, H, into the hollow rod, I, in the manner shown by the arrows. As the piston returns the valve in the bottom of it seats itself, and closes the aperture, J; the valve, G, closing, and the valve, G', opening, water from the well enters by the channel way, K, while the water in the bottom of the piston escapes up the rod through the pipe to the vessel placed there to receive it.

These pumps are desirable in many places, as they will force water to a considerable distance. The position of the apparatus beneath the surface of the well renders it impossible that it should freeze except under extraordinary circumstances, and all the working parts seem to be put together in a substantial manner. There are no pipes to burst in winter, and, as the pump is always full of water, it is unnecessary to work the brakes half an hour before producing any results.

The patent for this invention was procured on March 3, 1863, by Andrew J. Reynolds, of Dayton, Ohio; persons desiring further information can address him at that place.

REYNOLD'S PATENT PUMP.



Food.

The digestive power of the stomach may be cultivated to some extent. Gormandizers sometimes live for years free from dyspepsia, able to dispose of a large dinner daily, but there is less power left for the voluntary muscles, as they are comparatively sluggish, and less also for intellectual operations. For a period, sometimes of several years, the stomach bears this exertion, receiving an undue share of nervous influence, while the whole system, kept in a state of perpetual plethora, is exposed to apoplexy or some form of acute disease, and is wearing out with a rapidity proportioned to the excess of stimulation and overcharging the organs. In some cases of this sort, distant parts may suffer by sympathy,

that they eat bread from flour scarcely bolted, fruits, curdled milk (of which they are very fond), rice cooked with some other vegetable, and about twice a week a little meat at dinner, which they eat soon after sunset. They never drink any sort of distilled or fermented liquor. Onions and garlic are largely consumed by the Turks. Dr. Hamlin knew a man who traveled extensively, and who lived upon the black bread and raw onions.—*Dr. Mussey.*

SEVERAL armor plates of French iron have been tested at Shoeburyness, England, and have been found superior to the English plates in softness and non-liability to crack when struck with shot.

and sometimes give way before the stomach.

The Bedouins (says Ritson) are a most alert and military race, and yet it is an undoubted fact that the quantity of food usually consumed by the greatest part of them does not exceed six ounces a day. Six or seven dates soaked in melted butter serve a man a whole day, and he esteems himself happy when he can add a small quantity of coarse flour or a little ball of rice.

In 1779 an Englishman described the Russian grenadiers as follows:—"They are the finest body of men I ever saw. Not a man is under six feet high. Their food allowance consists of eight pounds of black bread, four pounds of oil, and one pound of salt per man for eight days; and, were you to see them, you would be convinced that they look as if they lived on roast beef and English porter." In 1854, when the Russians surprised the world by standing against the attack of the "Allies," on the bloody battlefield of Alma were found dead Russians with their provisions in their knapsacks, and those provisions were black bread-crumbs in oil.

Dr. Hamlin, who has resided more than twenty years in Constantinople, says that he is quite familiar with the habits of the Turkish porters in that city, and