

IMPROVED SHIP'S STOVE.

On page 160, Vol. XIV. (old series) of the **SCIENTIFIC AMERICAN**, we described an invention for hanging a ship's galley stove in a ring, similar to the gimbal of a compass, in order to keep the top of the stove level when the vessel is rolling in a rough sea. The plan consisted simply in suspending the stove in a ring by two pivots or trunnions, and then suspending the ring by two pivots at right angles to the former two so as to allow the stove to swing in both directions and thus maintain its level position. One half of the ring is made hollow to act as a flue, the joints which connect the stove with it of course being hollow, as well as the joint which connects this hollow half of the ring with the stationary portion of the flue. This invention was made by D. S. Beardsley, who sold the patent, and the present owner, finding the stove a success, and receiving abundant testimonials from shipmasters of character who have tried it, that the invention is useful and valuable, has been devising a little improvement in details of construction, which is the subject of the present patent.

In the original plan, the hollow joints were cast upon the stove and upon the ring; and, consequently any wear or injury which destroyed these small parts

had the effect to ruin the stove. By the new method, these joints are cast separately, movable sockets being inserted into the sides of the stove, into which are fitted short tubes or thimbles, the thimbles having dovetailed flanges upon their ends to secure them to the hollow half of the ring. By a similar joint the hollow portion of the ring is connected with the stationary portion of the flue. The opposite joint of the ring is an ordinary solid swivel joint.

This stove has been thoroughly tested at sea, and all who have tried it pronounce it an admirable improvement, promoting very materially the convenience and success of cooking at sea—a somewhat important operation either on land or ocean.

The patent for this improvement was granted to Geo. W. Slater, through the Scientific American Patent Agency, Dec. 20, 1859, and further information in relation to it may be obtained by addressing New & Slater, No. 31 Fulton-street, this city. Patents have also been taken out through our agency in the principal countries of Europe.

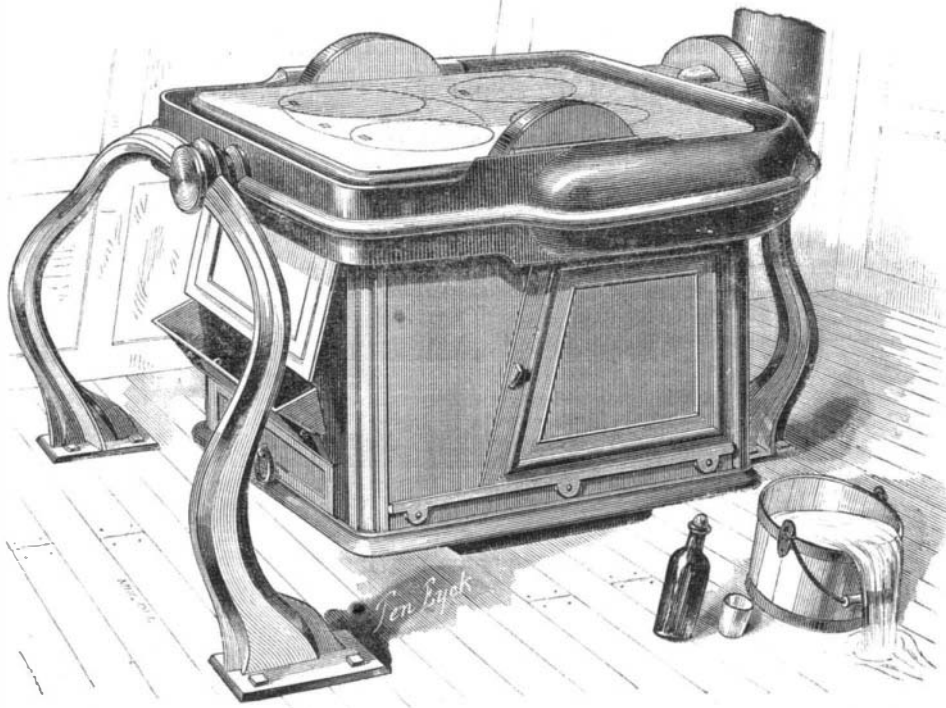
An advertisement of this improvement appears in another column.

PLASTIC FILLINGS FOR TEETH.

The following useful information is taken from an article in the "Dental Cosmos," communicated by H. L. Runkle, of Culpepper, Va.:

"Lately there have been introduced to the dental profession a number of preparations styled osteoplastic, bone, and quartz fillings. The composition of these new materials is similar; all of them are formed from soluble glass, mixed with powder, the base of which is either the oxyd of zinc, in a freshly prepared state, or the precipitated sulphate of baryta. My attention was first called to the soluble glass, compounded with powders, in 1853, by an eminent chemist of Berlin, Prussia. The process by which he obtained it was fusing thoroughly fifteen parts quartz, ten of potash, and one of charcoal. In this state it was a hard and clear substance. It was then divided into minute particles, and dissolved by steam, forming a clear and sirupy liquid. With this liquid he would unite a powder, the base of which was the oxyd of zinc or precipitated sulphate of baryta, and from this plastic material would, in a short time, pro-

duce a substance as hard as marble. He sometimes employed lime, in connection with the soluble glass, which readily consolidated, having a tendency to form silicate of lime. With these preparations, in various forms, I experimented in numerous cases, to test their durability as fillings for teeth. The result was, that in some mouths the fillings would wash away in a few months. When this was not the case, and the filling remained and presented a solid appearance, upon its re-



SLATER'S IMPROVED SHIP'S STOVE.

moval, the walls of the cavity would be found to be in a chalky and brittle condition, very much injured, and in such a manner as to be difficult to remedy. This was invariably the case when they remained in from 18 to 20 months. I have examined three of these new preparations, said to be recent discoveries, and find them in substance the same, with the exception that they are more objectionable from the fact that they are not chemically compounded. I therefore expect their use will be of short duration among the scientific members of the profession."

BYRN'S PATENT CORKSCREW.

Among the most valuable patents which have ever been taken out are the two for making screws by machinery. The two companies which have been manufacturing screws under these patents in Providence, R. I.,



have made the stockholders rich, and we see by the papers that they have recently been consolidated into one concern, which will doubtless conduct its profitable operations on a still more enlarged scale than when existing as rival companies. We are reminded of these facts by the new use to which wood screws are adapted by the invention which we here illustrate.

It is simply a new kind of corkscrew, which is made by attaching a handle to the common gimlet screw. Experience has taught almost every one that ordinary cork-

screws are very liable to be broken, especially when used for severing the wire which is employed for securing corks in bottles. The principal advantage in this screw is its greater strength, cheapness, and adaptation for the smallest phials, as well as for the hardest bung of casks. When we consider that there are seven millions of corks used annually in the city of London, we see that even so small an article as a corkscrew may be in the magnitude of its numbers a very important affair.

A successful inventor recently remarked to us that, if a man had the monopoly of any one thing in this country, even if it is not larger than the head of a pin, he is secure of a fortune.

The patent for this invention was obtained (through the Scientific American Patent Agency) on March 27, 1860, and persons desiring further information in relation to it may address the inventor, Dr. M. L. Byrn, No. 66 Nassau-street, this city.

MELTING LEAD IN A PAPER CRUCIBLE.—A neat experiment for boys, and one which gives a very impressive lesson in regard to the transmission of heat is the melting of a bullet in the blaze of a lamp or of gas; the bullet being contained, at the time, in a wrapper of thin writing-paper. All that is requisite is to fold the paper

tightly over the bullet, and rub down the folds very smoothly. It may then be held in the flame until the lead melts.



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