

Scientific American.

THE ADVOCATE OF INDUSTRY, AND JOURNAL OF SCIENTIFIC, MECHANICAL AND OTHER IMPROVEMENTS.

VOLUME 6.]

NEW-YORK, JANUARY 18, 1851.

[NUMBER 18.

THE
Scientific American,
CIRCULATION 16,000.
PUBLISHED WEEKLY

At 123 Fulton, street, N. Y., (Sun Building,) and
13 Court street, Boston, Mass.

BY MUNN & COMPANY,

The Principal Office being at New York.

A. T. Hetchkies, Boston.
Dexter & Bro., New York City.
Weld & Co., New Orleans.
Stokes & Bro., Philadelphia.
Barlow, Payne & Parken, London.

Responsible Agents may also be found in all the principal cities and towns in the United States.

TERMS—\$2 a year—\$1 in advance and the remainder in 6 months.

Rail-Road News.

Ground was broken on the Troy and Greenfield Railroad, at North Adams, Mass., on the 8th inst., and was the occasion of much rejoicing. Bells rung, cannon fired, and an address made by the Hon. George Grinnell, President of the Corporation.

The first train of cars arrived at Portsmouth, Va., from Carrsville, on Tuesday last, and celebrated the trip by running over two mules—cutting one of them literally in two.

In Indiana 1,205 miles of railroad have been projected, and 212 have been completed.

Repairing Steam Boilers.

A judicial investigation at New Orleans, in relation to the boilers of the steamer Knoxville, though not at all connected with the explosion of that boat, revealed some interesting facts. It appears that in February last, F. Coan & Co., of Algiers, brought suit against the owners of the Knoxville, for the sum of \$360 for patching and repairing her boilers. The defendants answered that the express understanding and agreement with plaintiffs was, that they should make the boilers of said steamer tight and sound, and should receive no compensation unless they succeeded in doing so; that they wholly failed to fulfil said condition, and are entitled to nothing under their agreement. The court gave judgment against plaintiffs.

Camphor Balls for the Hands.

Cut small an ounce of spermaceti, an ounce of camphor, and one of white wax; put them into a couple of ounces of almond-oil, and melt them with a gentle degree of heat over a gentle fire. Pour the mixture into gallipots, and rub it on the hands or on any part of the skin which is roughened by the cold winds. This preparation is exceedingly pleasant, and very healing; to render it even more so, half a drachm of pulverized gum benzoin might be infused for some little time in the oil (which might be kept hot on a corner of the stove) before the ingredients are added. The mixture must then be strained through muslin before it is put in use.

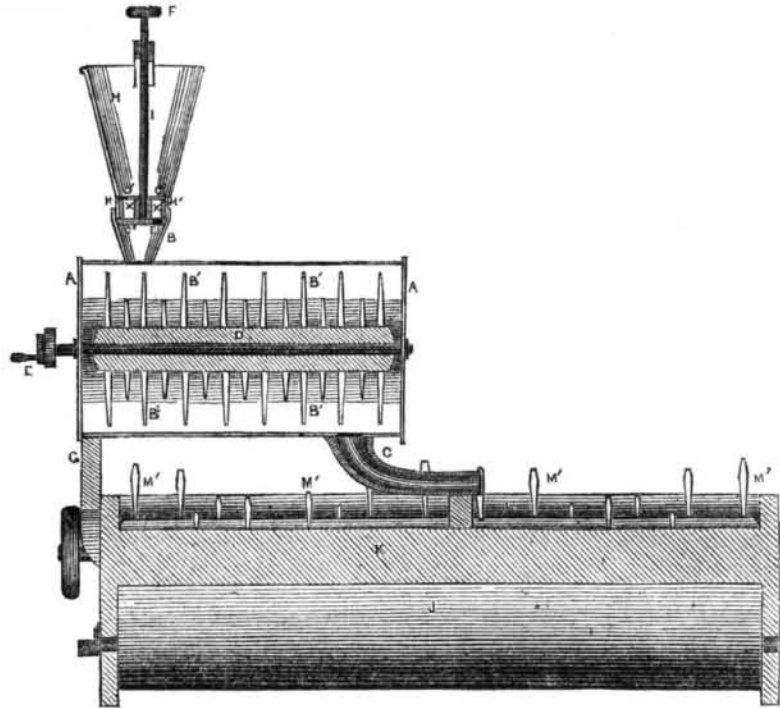
A Professor of Latin in the University of Edinburgh, now no more, having desired the students to give a list of their names in Latin, was greatly surprised on seeing written on a slip of paper the name "Joannes Ovum Novum;" which turned out to be the name of one John Egnew.

American Life Boats in England.

Some of Frances' Metallic Life Boats are being built in this city for the English Government. They are allowed to be superior to any other in the world. This is a feather in the cap of our inventors, and not the first.

Chief Justice Turney has been unanimously elected Chancellor of the Smithsonian Institute.

WRIGHT'S IMPROVED MASHING APPARATUS, FOR DISTILLING AND BREWING.—Figure 1.

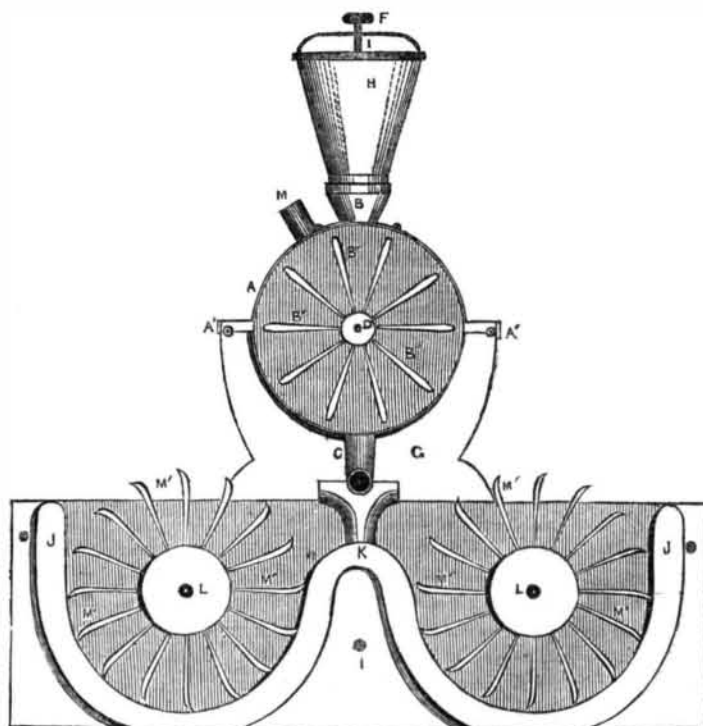


This improvement is the invention of Mr. Joseph Wright, of Waterloo, Seneca Co., N. Y., who has taken measures to secure a patent for the same. The improvements relate to the mashing apparatus, and being very simple and good, the following description of the accompanying figures will render the same clear and understandingly to any person. Fig. 1 is a longitudinal section. Fig. 2 is an end elevation with the outer covers removed to exhibit the interior beaters. The same letters refer to like parts. The main part of the improvement relates to a small enclosed cylinder with quick revolving beaters inside, and a self regulating hopper to supply meal and hot water in proper proportions, and in small

quantities to mash or mix the materials most thoroughly, and to let them pass out continually and regularly, with a large cooler with revolving stirrers.

A is the stationary mashing cylinder; B is the feeding funnel; C is the outlet pipe of the cylinder, which may be set in any position; A' A' are bracing rods to support the cylinder; D, is the shaft of the revolving mashing mixers, B' B'. These beaters may be arranged in any suitable manner on the shaft. The cylinder may also have projecting beaters fixed inside for the revolving beaters to move between; E is a handle to drive the beaters, or a pulley, when steam or water power is applied; G is a bolster plate, for the cylinder to

Figure 2.



rest on; H is the hopper to feed in the grain or meal. It is fitted with two plates, C', situated a short distance apart at its bottom; it has radial openings, D' E, the one opening in the top plate, C', and the other in the bottom plate, C' (fig. 1). There is one, it may be said, on the right, and the other on the left

hand of the hopper, H. I is an upright shaft, driven by a pulley, F; this shaft works through the plates, C' C', and has arms, X X, branching from it, bound by a ring clasp, H' H'. These arms are formed so as to constitute so many revolving cups or feed bowls into which the meal or grain passes from the hopper—

through the opening, D', and is delivered into the funnel, B, from the said opening, D', through the lower opening, E, as the shaft, I, revolves. This is the way the grain materials are regularly fed into the cylinder. In fig. 2, M is a pipe for conducting hot water into the cylinder, A, to form the mash; J J is a large cooler, into which the mash runs from the cylinder through the pipe, C. It may be of any size, and have either one or two, as shown in figure 2. K is the bridge between the two coolers; L L are shafts extending from end to end of the coolers, and M' M' are curved arms on the shafts. Cold water may be admitted by the opening, I', or to circulate around the coolers in the channel, J J. The roller shafts, L L, can be driven by belt and pulley. There are outlets at the bottom of the coolers, to run off the mash when sufficiently cooled.

The shaft in the hopper to feed in the meal or grain, and the shaft in the mashing cylinder, A, are geared by belting to run in unison, to make the feed correspond exactly with the motion of the mixing beaters, B' B'. This is a very important and excellent arrangement. The supply of hot water can also be regulated. The meal or grain being mixed in small quantities in a closed cylinder, the mash is mixed thoroughly, the grain or meal being perfectly incorporated together, no lumps being found in the coolers. The water used may be of a lower temperature than that commonly employed. The grain or meal is uniformly scalded, as but a small quantity is operated on at one time, although this is done rapidly. Over-scalding some, and under-scalding other parts are obviated. The apparatus does not occupy much room for the work it performs. For the ordinary purposes of distillation, corn meal, with this apparatus, without the usual mixture of English or small grain, will be found to produce a great quantity of good spirits, as the mash is better mixed, scalded, &c. For brewing, the malt is operated like the meal for distilling. A good heat is just at the point of scalding—a point about 210°.

The cooling apparatus is a great improvement over those in common use. Two of the form represented, will cool as much as six of common kind, and the mash is all the better for this, as it is soon delivered from exposure to the atmosphere. The inventor is a practical distiller. It will be observed that the bottoms and sides of the coolers are made of metal to expose a quick cooling surface.—These improvements are of the most valuable character, because they are economical in every light in which they may be viewed.

Mr. Wright has applied for letters patent. His improvements are in operation, giving the most perfect satisfaction. More information may be obtained by letters addressed to him at Waterloo.

Probable Boon for Grumbling Shavers.

M. Boudet, a French chemist, in a communication to the "Journal de Pharmacie," gives the following formula for a depilatory:—"Take of sulphurite of sodium, or hydrosulphate of soda, crystallized, 3 parts; quick lime, in powder, 10 do.; starch, 10; mix. This powder mixed with a little water, and applied over the skin, acts so rapidly as a depilatory, that if it be removed in a minute or two after its application by means of a wooden knife, the surface of the skin will be entirely deprived of hair. By this process the removal of the hair becomes so simple, rapid, and safe in operation, that it will probably supersede the use of the razor in many cases. It may be applied to parts the most delicate, as well as irregular, and to surfaces either limited or extended, and it is only after several days that the hair begins to re-appear."