J. GECMEN.

Mash-Tun.

No. 198,102. Patented Dec. 11, 1877.

Fig. 1.

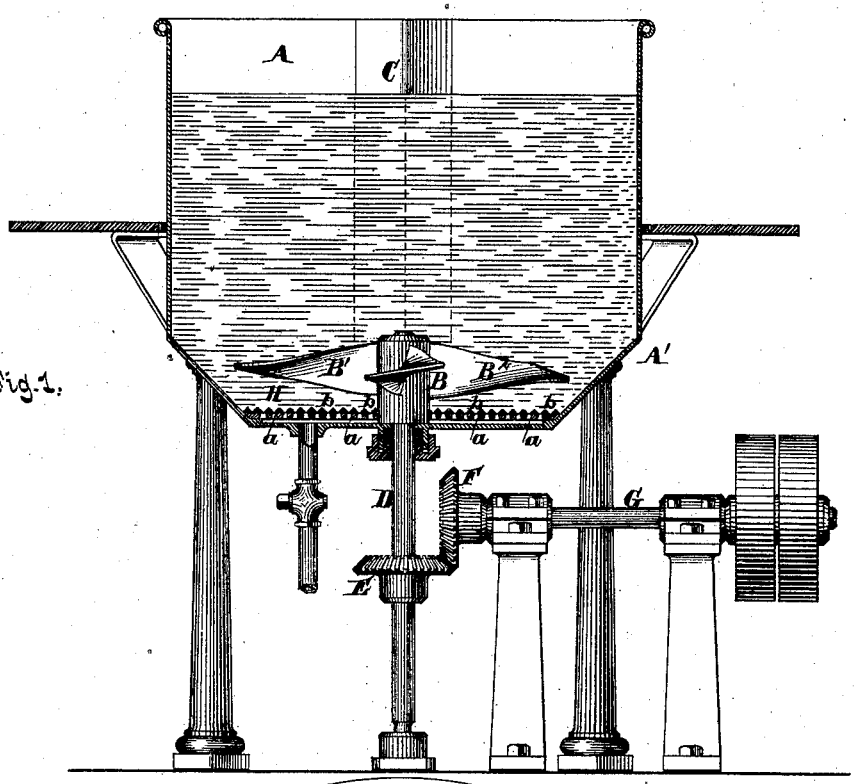
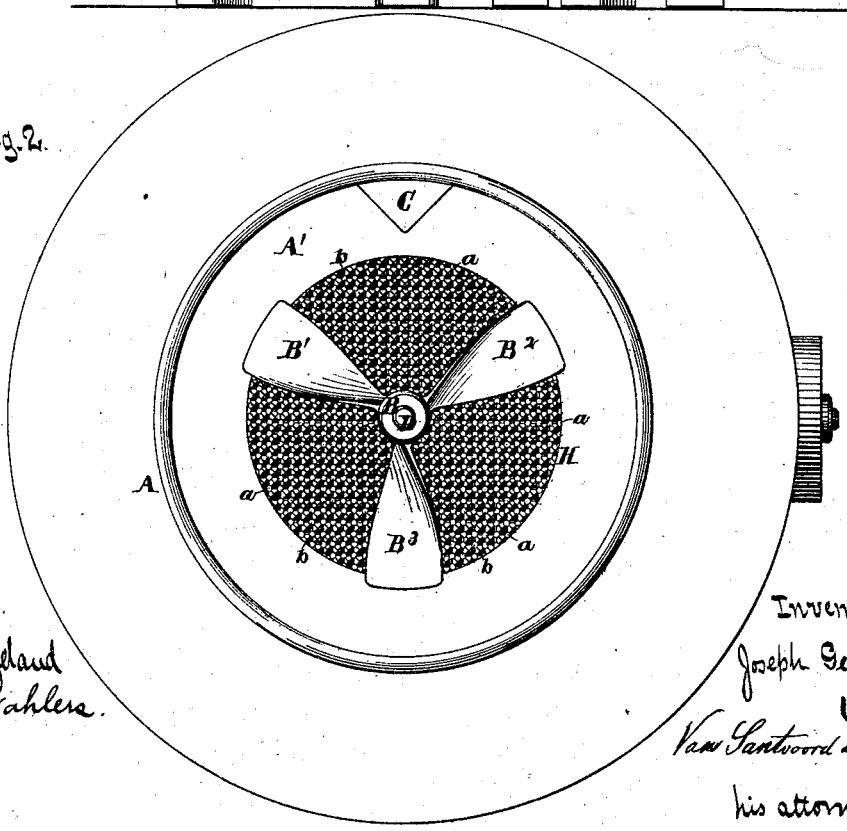


Fig. 2.



Witnesses.

Otto Hufeland

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UNITED STATES PATENT OFFICE.

JOSEPH GECMEN, OF BUFFALO, NEW YORK.

IMPROVEMENT IN MASH-TUNS.

Specification forming part of Letters Patent No. **198,102**, dated December 11, 1877; application filed June 14, 1877.

To all whom it may concern:

Be it known that I, JOSEPH GECMEN, of Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Mashing-Machines, which invention is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical central section of a mashing-machine containing my improvement, and Fig. 2 is a plan or top view thereof.

Similar letters indicate corresponding parts.

The object of this invention is to provide for the more effectual agitation of the contents of a mash-tun at less expenditure of power than heretofore; and to this end it consists in the combination of a radial stirrer, with screw blades or arms, with a vertical angular projection on the inner walls of the tun, whereby the mash is first thrown to the edge of the tub, and then directed back toward the center, by which I am enabled to thoroughly agitate the same with a smaller stirrer and with a less expenditure of power than heretofore.

In the drawing, the letter A designates a mash-tun, in the lower part of which is arranged a revolving stirrer, B, and the inner surface of which has a vertical ridge or projection, C, formed or secured thereon. The mash, which is placed in the tub A, is thrown outward by the stirrer B, and when it comes in contact with the ridge C the same is thereby deflected or caused to move toward the middle of the tun A.

A portion of the mash-tun A, immediately above its bottom, is made of tapering form in a lower direction, as at A′, the stirrer B being placed in the lowest part of the tun when it is thus constructed.

It will be seen that, by the ridge C and the tapering part A′ of the mash-tun, a tendency is given to the malt to move toward the middle of the tun, either when it is thrown outward by the stirrer B, or when it descends in the tun by its inherent gravity, as the case may be, and hence a stirrer of small diameter or size may be used compared with the largest diameter of the tun, and thereby an economy is effected in the power required to drive the stirrer without affecting the thorough agitation of the mash.

It is obvious that the vertical ridge C and the tapering part A′ of the mash-tun may be used either separately or in combination with each other.

The stirrer B is constructed of three (more or less) blades, B^1 B^2 B^3, which are shaped similarly to the blades of a propeller, or, in other words, are bent spirally, and which project from a hub, by which they are secured to a spindle, D, which extends through the bottom of the tun A. The spindle carries a cog-wheel, E, gearing with a like wheel, F, which is secured to a driving-shaft, G, so that a revolving motion can be given to the stirrer.

On the bottom of the tun A is arranged a false bottom, H, which is provided with a large number of perforations, *a*, and which serve to strain the mash contained in the tun, the wort being allowed to escape through a pipe, I, projecting from the bottom of the tun. The perforations *a* are made to taper toward their upper ends, and by this means they are rendered less liable to clog or fill up with malt in the process of draining the mash. Between the perforations *a* are formed pyramidical projections *b*, which prevent the settling of the malt on the upper edges of said perforations, or, in other words form a support for the malt, and thus retain the same at a higher level than said upper edges of the projections.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, in a mash-tun, of a stirrer provided with radial screw-blades and an angular vertical projection in the inner walls of the mash-tun, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 19th day of May, 1877.

JOS. GECMEN. [L. S.]

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.