

WILLIAM HOCKING.

Improvement in Apparatus for Dissolving Sugar.

No. 125,654.

Patented April 9, 1872.

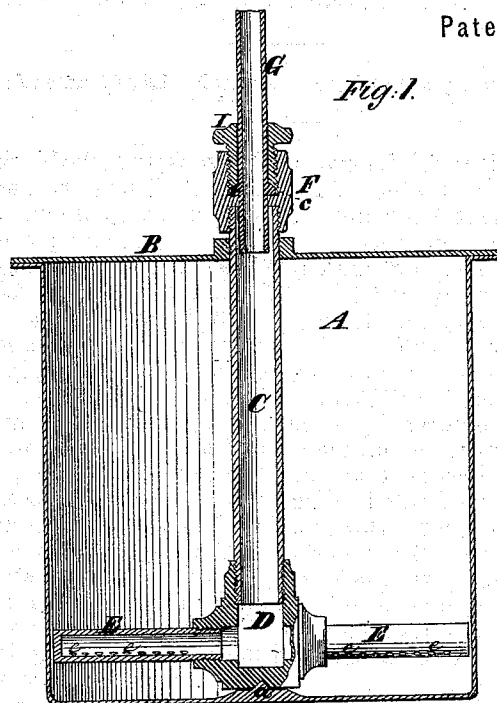
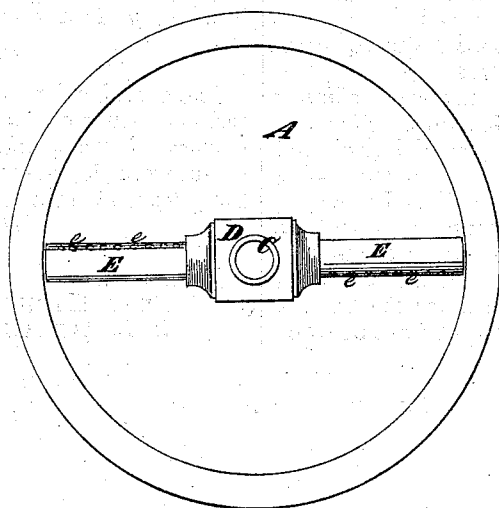


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM HOCKING, OF NEW YORK, N. Y.

IMPROVEMENT IN APPARATUS FOR DISSOLVING SUGAR.

Specification forming part of Letters Patent No. 125,654, dated April 9, 1872.

Specification of a new and useful Improvement in Melters for Sugar and other Substances, invented by WILLIAM HOCKING, of the city, county, and State of New York.

To enable me the better to explain the nature of my invention, I will briefly refer to the melters commonly used for dissolving the raw sugar. This consists of a pan which is furnished with a rotary stirrer, driven by gearing, and with pipes for the introduction of steam.

My invention consists in an upright pipe or hollow shaft arranged centrally in the melting-pan, and having near its lower end hollow arms or branches that are perforated along opposite sides, and constitute, with the said shaft, what is commonly known as a "Barker's Mill," which is operated by the passage through it of the steam that is introduced into the contents of the pan, thus obviating the necessity of gearing or other mechanism for driving the stirrer.

In the accompanying drawing, Figure 1 is a central vertical section of a melter having my improvement applied, and Fig. 2 is a plan of the same with the cover removed.

Similar letters of reference indicate corresponding parts in both figures.

A is the pan, which is or may be of ordinary construction, and is provided with a cover, B. C is the pipe or hollow shaft, which is arranged centrally within the pan. Its lower end is screwed into a socket into a hollow T-piece, D, in whose under side there is a bearing that fits a pivot or step, *a*, on the bottom of the pan A. The upper portion of the shaft C has a bearing in the cover of the pan. E E are the arms of the stirrer. They are hollow, and are screwed

into sockets in the block D at right angles to the shaft C. These arms are closed at their outer ends, and they are each perforated throughout their length along one side, as shown at *e e*. Their interiors communicate through the block D with the shaft C. On the upper end of this shaft there is screwed a hollow coupling, F, which may also be a stuffing-box. The end of a stationary steam-pipe, G, having formed on it a collar, *c*, is fitted into this coupling with its collar bearing against a shoulder therein, and a gland or follower surrounds the steam-pipe, screws into the coupling F, and connects it with the hollow shaft in such manner that the latter is free to rotate.

The steam to be introduced into the pan passes through the steam-pipe G and the hollow shaft C into the arms E E, and by escaping through the holes or perforations *e e*, produces the rotation of the said shaft and arms, which are thus without the use of gearing or other driving mechanism, made to stir the contents of the pan, which are also, at the same time, further agitated by the jets of steam issuing from the perforations *e e*.

Claim.

The combination, with the melter, of a stirrer, consisting of a hollow shaft and attached perforated arms, operated by the escape of steam from the latter, substantially as and for the purpose herein set forth.

WILLIAM HOCKING.

Witnesses:

FRED. HAYNES,
R. E. RABEAU.