

W. W. STOLL.

Malt-Polishing Apparatus.

No. 145,027.

Patented Nov. 25, 1873.

Fig. 1.

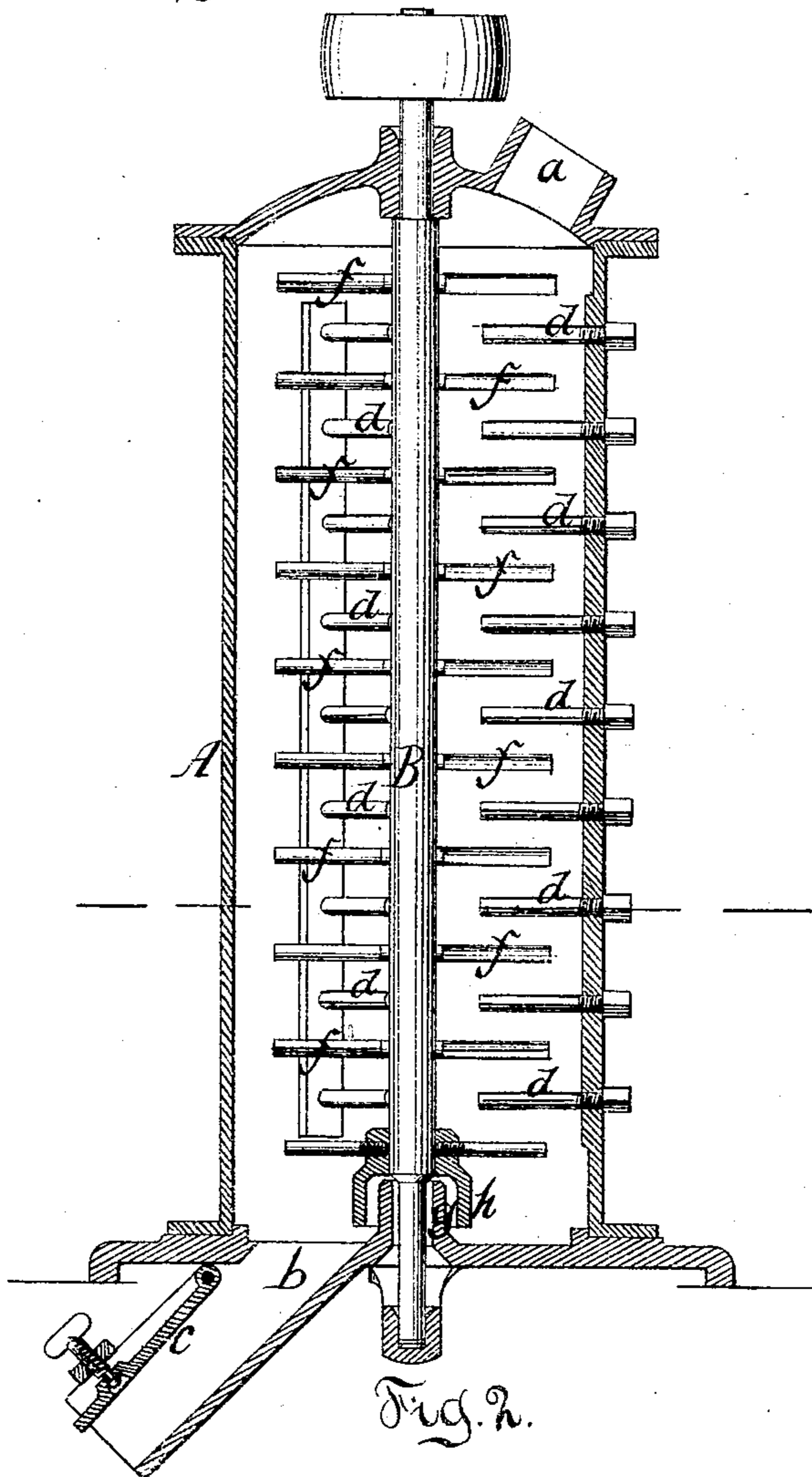
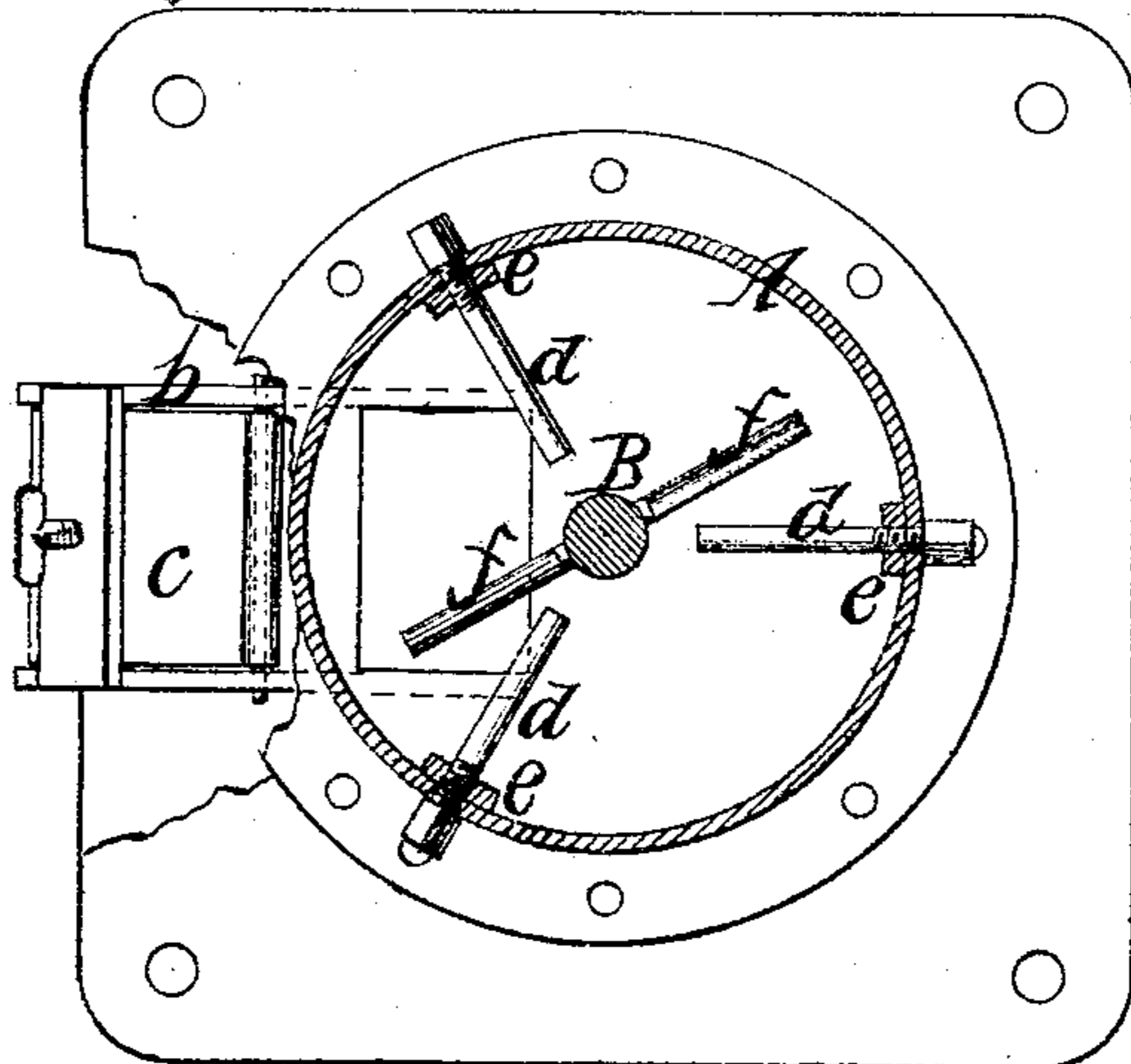


Fig. 2.



Witnesses.  
Ernst Billhuber.  
Henry Gentner.

Inventor.  
William W. Stoll  
By Sanford & Haupp  
Attys

# UNITED STATES PATENT OFFICE.

WILLIAM W. STOLL, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN MALT-POLISHING APPARATUS.

Specification forming part of Letters Patent No. **145,027**, dated November 25, 1873; application filed November 10, 1873.

*To all whom it may concern:*

Be it known that I, WILLIAM W. STOLL, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Apparatus for Polishing Malt; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which drawing—

Figure 1 represents a vertical central section of this invention. Fig. 2 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates to an apparatus composed principally of a circular chamber, from the inner surface of which project a series of pins, and through the center of which extends a vertical shaft with agitators, so that by imparting to said shaft a revolving motion, the malt contained in the circular polishing-chamber is agitated, causing the grains to rub against each other, whereby the impurities adhering to the same are readily disengaged. The polishing-chamber is provided with a feed-opening above, and with a discharge-spout below, and in the discharge-spout is an adjustable gate, so that by increasing or decreasing the area of said discharge-spout, the period of time for which the malt is exposed to the polishing process can be shortened or lengthened. The friction-pins of the polishing-chamber are inserted from the outside, and they are provided with square heads, so that they can be readily removed or re-inserted, and that said pins, if they should work loose, cannot drop into the chamber and mix with the malt contained therein. The agitating-pins of the vertical shaft are provided with inclined surfaces, whereby their effect is increased. A raised flange and a protecting-cap prevent the malt from discharging at the sides of the vertical shaft.

In the drawing, the letter A designates a circular or cylindrical chamber, through the center of which extends a vertical shaft, B. In the top of said chamber is a feed-opening, *a*, and on its bottom is a discharge-spout, *b*, which is provided with a gate, *c*, that can be

adjusted by a set-screw, or other equivalent means. The chamber A is kept full of malt, and by decreasing the area of the discharge-spout the time required for each individual grain to pass through said chamber is increased, and vice versa, so that the apparatus can be readily adjusted to suit the nature of the malt under treatment. Through the sides of the chamber A extend a series of pins, *d*, which are, by preference, round, and serve to promote the friction of the individual grains of malt against each other. Said friction-pins are screwed in from the outside, and in order to increase their hold the chamber is provided with ribs or strengthening-strips *e*. Each of said pins is provided with a head on its outer end, so that the same cannot be screwed in beyond the shoulder formed beneath this head, and that, if one of the pins should work loose, it is not liable to drop into the interior of the chamber, where it would endanger the safety of the apparatus and its contents. From the shaft B project a series of agitating-pins, *f*, which work between the friction-pins *d*. These agitating-pins are, by preference, made inclined, as shown, so that their effect is increased, and that the grains receive a rising and falling motion, causing them to rub against each other, so as to disengage the impurities adhering to their surfaces. From the bottom of the chamber A rises a circular flange, *g*, and on the shaft B is secured a cap, *h*, which projects down over said flange, so that the grains are prevented from passing out at the sides of the shaft B.

By means of this apparatus malt can be readily and quickly freed from all impurities adhering to the grains without injuring its quality or breaking the grains.

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

1. The combination of an adjustable discharge-spout with the feed-opening in the chamber A containing friction-pins *d* and agitating-pins *f*, which act upon the malt in said chamber, said spout serving to retain the individual grains for a longer or shorter period in the polishing-chamber, substantially as described.

2. The friction-pins *d*, provided with heads

on their outer ends, and secured in the sides of the polishing-chamber from the outside, substantially as set forth.

3. The protecting-cap *h* and circular flange *g*, in combination with the shaft B and with the polishing-chamber A, substantially as shown and described.

This specification signed by me this 5th day of November, 1873.

WILLIAM W. STOLL.

Witnesses:

W. HAUFF,  
CHAS. WAHLERS.