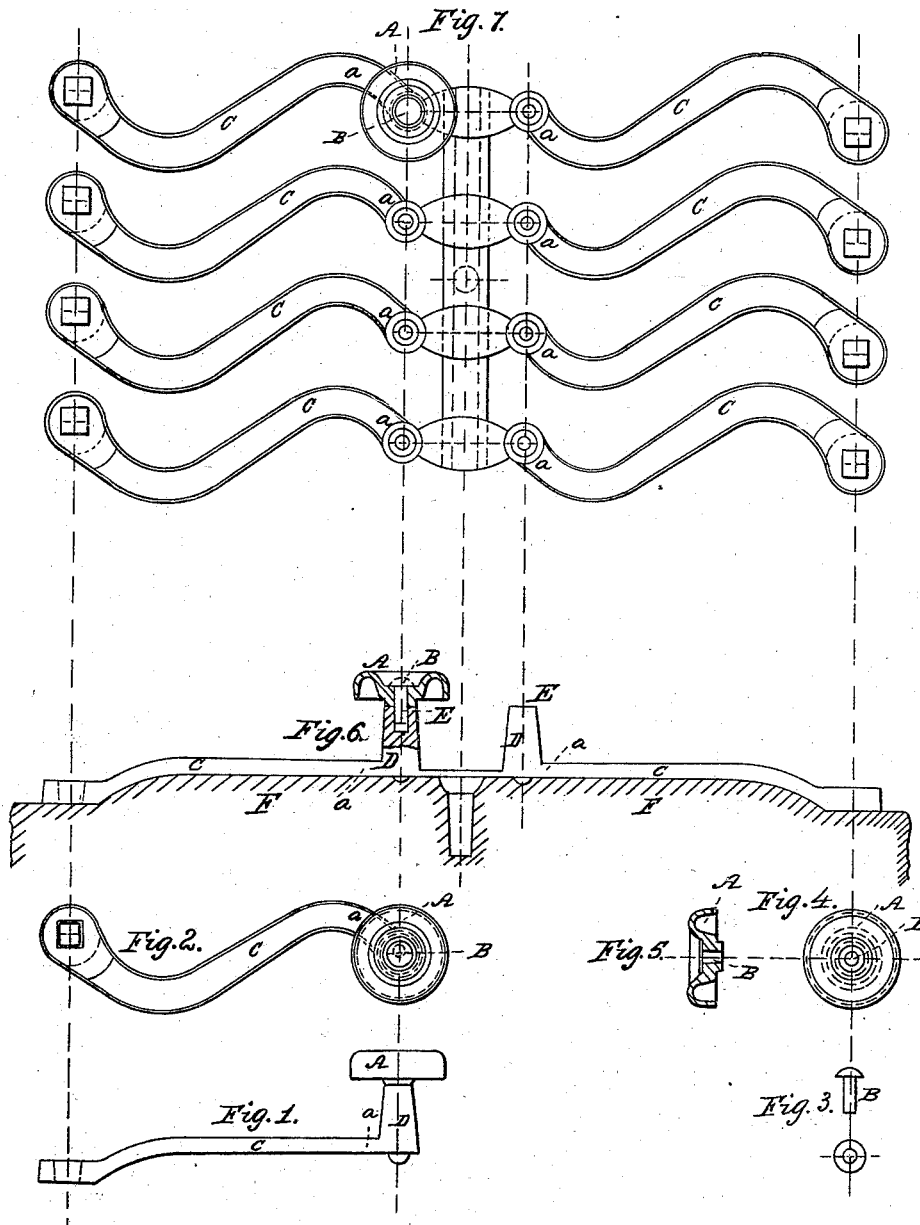


J. KINZER.

Handle for Coffee, Spice, and other Small Mills.

No. 54,740.

Patented May 15, 1866.



Witnesses:
J. H. Baldwin
A. L. Nicholson

Inventor:
Jacob Kinzer

UNITED STATES PATENT OFFICE.

JACOB KINZER, OF PITTSBURG, PENNSYLVANIA.

IMPROVED HANDLE FOR COFFEE, SPICE, AND OTHER SMALL MILLS.

Specification forming part of Letters Patent No. 54,740, dated May 15, 1866.

To all whom it may concern:

Be it known that I, JACOB KINZER, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Method of Constructing Cast-Iron Handles for Coffee, Spice, and other Small Mills; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Like letters refer to like parts in all the drawings.

I make my knobs of cast-iron, of convenient size and shape, as shown in the drawings at A A. They may, however, be made of any other suitable material.

The rivets B are of wrought-iron, machine made, with one end pressed or headed down so as to hold the knobs A A in their place, and are cut long enough to project through the knob and into the hole E in the post D, as hereinafter shown. The patterns for molding these handles generally consist of a card of six or eight handles each, as in Figure 7.

At the end *a* of the arm C posts D D, &c., are carried up half an inch or more, as may be needed for strength and symmetry of proportion to the handles. In these posts holes E are drilled to receive the ends of the rivets which project through the knob A. Now, in making the mold for casting these handles the pattern is laid on the board with the posts up, as in Fig. 6, the knobs placed on the posts, and the rivets inserted. The mold is then made up in the ordinary manner. When it is finished the position

of the pattern is of course reversed, so that in drawing or lifting the pattern the knobs remain in the bottom of the mold with the rivets projecting upward. In this position the mold receives the metal, which, running through the spaces for the arms, closes around the projecting ends of the rivets, holding them securely in their places and forming the posts, while the iron in cooling, and also because of the coldness of the knob with which it comes in contact, will shrink sufficiently to allow the knobs to turn easily on the rivets. If the molds are properly made up this will never fail to be the case.

This method of constructing handles has two important advantages over those now known and used: first, that the time and labor of riveting the knob to the arm is saved, while the danger of breaking the arm in such operation is entirely avoided; and, second, that these rivets can never get loose or permit the knob to come off, as is too frequently the case on other handles by reason of the insufficient fastening or heading down of the rivets or the wearing off of such headings.

Having thus stated the nature and method of construction of my invention, what I claim, and desire to secure by Letters Patent, is—

The cast-iron handles for coffee, spice, and other small mills, substantially as shown and described, as a new article of manufacture.

JACOB KINZER.

Witnesses:

J. H. BALDWIN,
A. S. NICHOLSON.