

J. BARKLEY.
Flour Bolt.

No. 229,579.

Patented July 6, 1880.

Fig. 1.

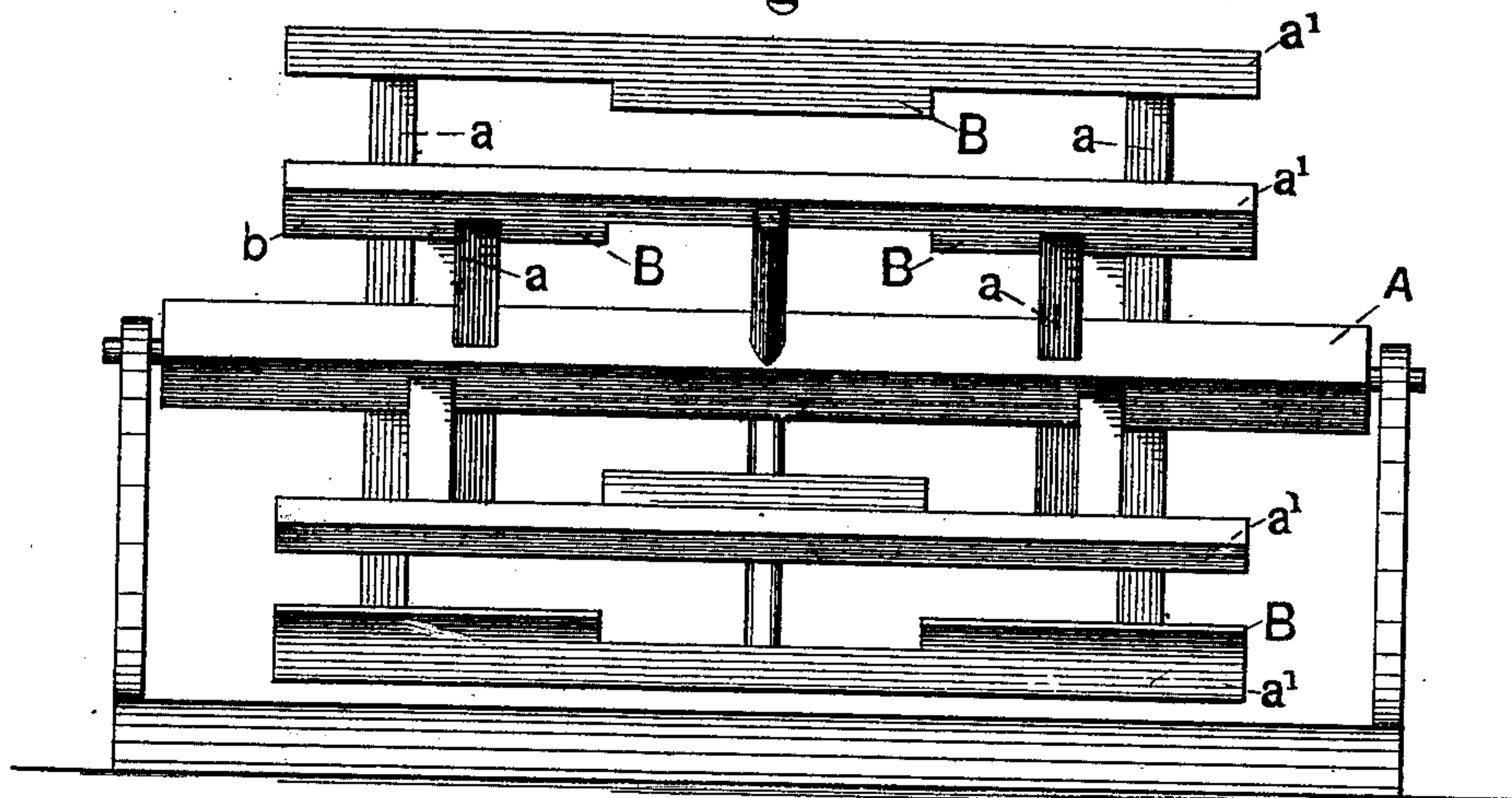


Fig. 2.

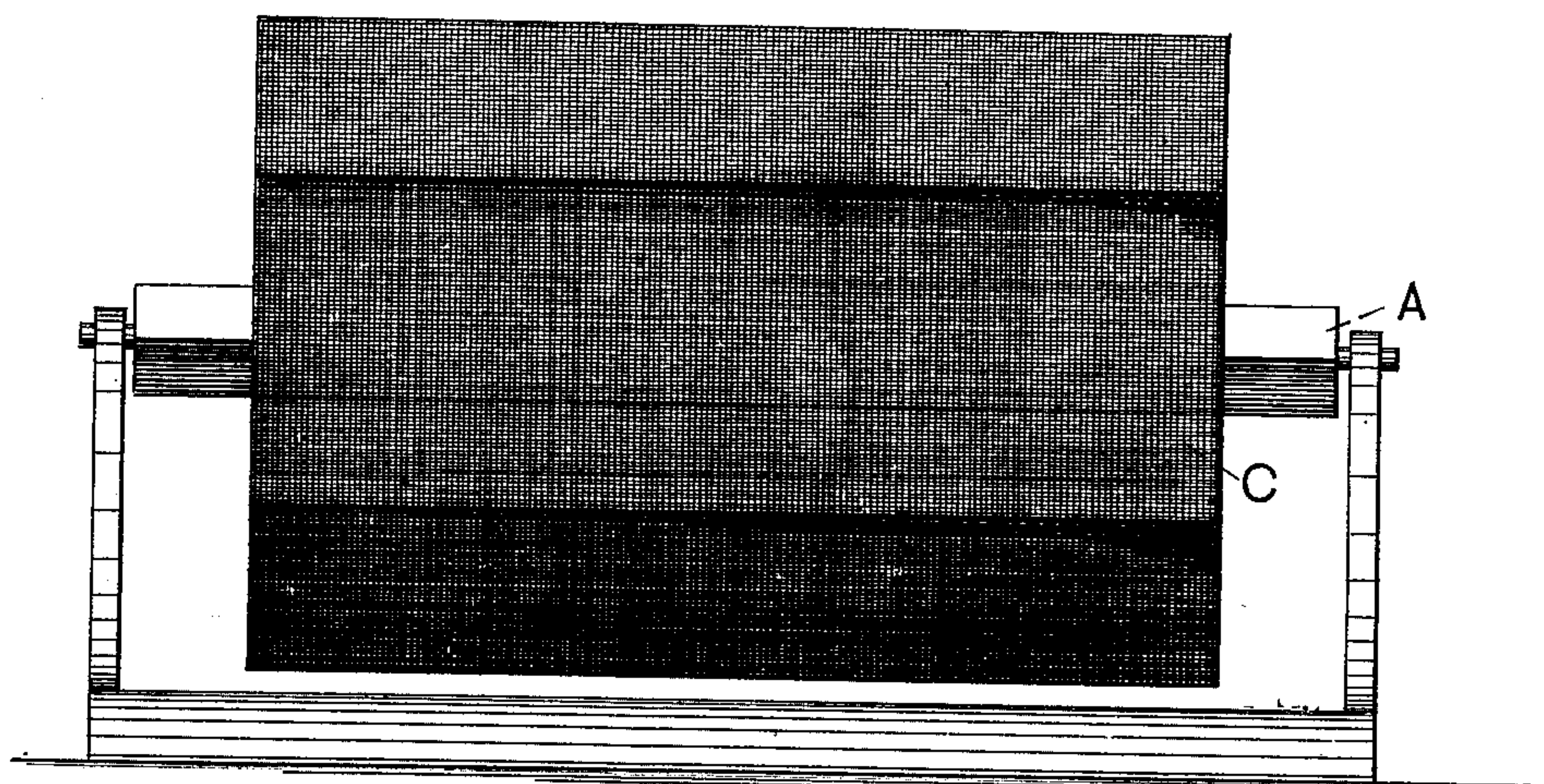
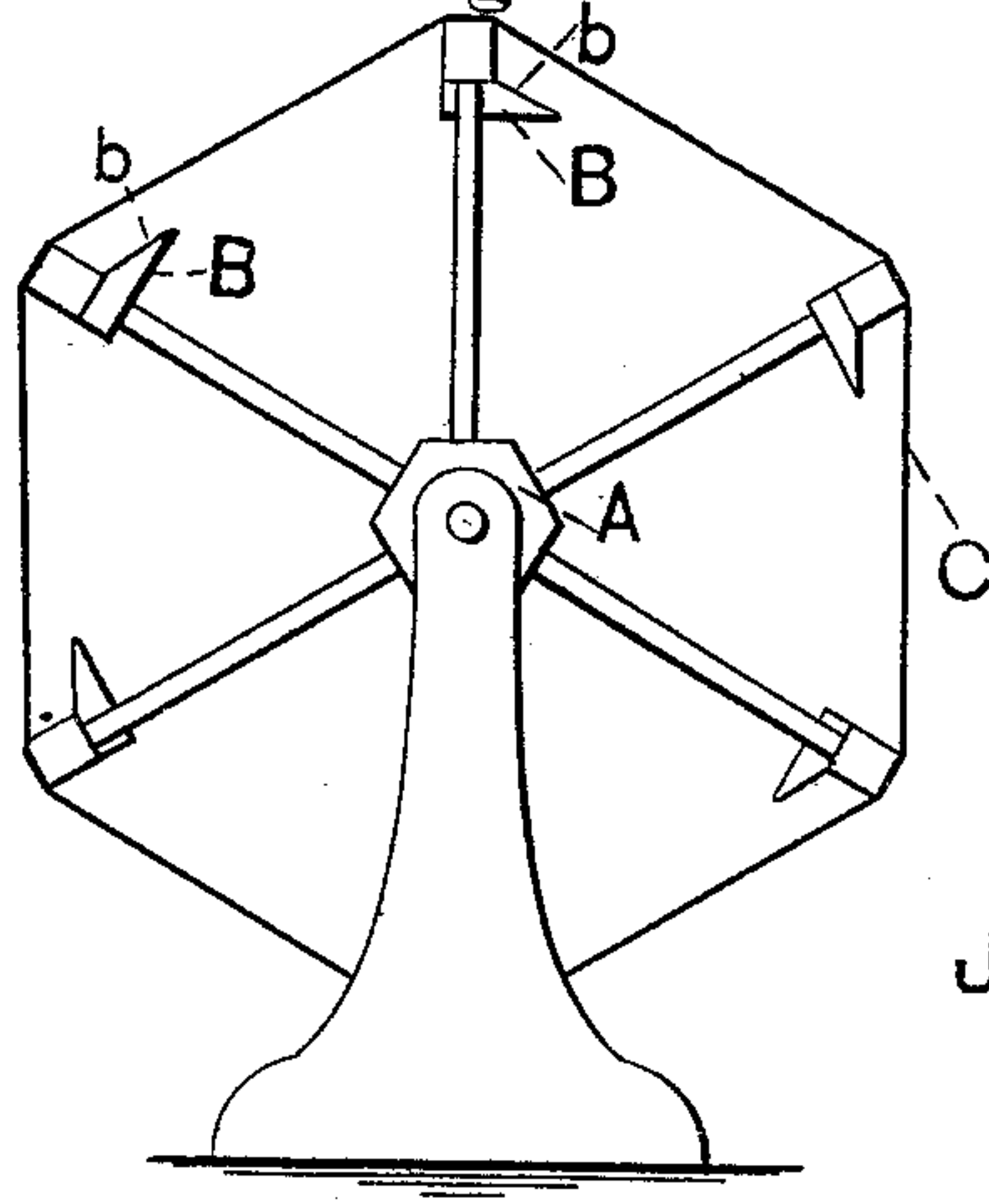


Fig. 3.



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FLOUR-BOLT.

SPECIFICATION forming part of Letters Patent No. 229,579, dated July 6, 1880.

Application filed October 14, 1878.

To all whom it may concern:

Be it known that I, JAMES BARKLEY, of Edray, county of Pocahontas, and State of West Virginia, have invented a new and Improved Flour-Bolt; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention is an improved flour-bolt, the special construction of which will be fully described hereinafter.

In the drawings, Figure 1 represents a side elevation of the frame-work of the bolt, Fig. 2, a similar view with the cloth applied; and Fig. 3 an end elevation of the same.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A, Figs. 1, 2, and 3, represents the shaft or axis of the bolt, which is supported at its ends by journals held in any proper bearings, and is adapted to receive revolution in any suitable manner from any proper source.

a a, Figs. 1 and 3, represent radial arms of the usual well-known or other proper construction, extending outward from the central shaft, and *a' a'* longitudinal ribs secured to the outer ends of the arms, as shown.

B B, Figs. 1 and 3, represent plates consisting of a strip of any suitable material of proper length and width, which is provided with a beveled or inclined face, *b*, Fig. 3, as shown. These plates, it will be observed, are secured to the inner faces of the ribs in such manner that the inclined faces *b* are opposite the bolting-cloth, as shown in Fig. 3. These plates are located in short lengths on the several ribs, a plate on one rib being arranged opposite a space on the adjacent rib, by means of which construction a clear space is obtained for the descent of the flour when discharged from the cups—that is to say, the flour from one cup will not be discharged onto the back of the preceding one.

C, Figs. 2 and 3, represents the bolting-cloth, which is extended around the ribs in the usual manner.

The operation is substantially as follows: The proper revolution having been given to the bolt and the flour having been introduced therein in the usual manner, the latter will be

acted upon, as in other bolts, for the purpose of separating the different kinds of flour.

In addition, however, to the usual operation of the bolt, a further result is obtained from the employment of the peculiarly-constructed plates B, attached to the ribs. By means of these, it will be observed, a series of cups having an inner inclined face, *b*, is formed between the plates and the bolting-cloth, as shown in Fig. 3, by means of which the flour is first carried up from below to the highest point of the bolt, and then fully discharged upon the bolting-cloth beneath.

By means of the beveled edges of the ribs all tendency to clog is avoided, the flour being fully discharged from the cups at each revolution.

The broken arrangement of the plates on any one of the ribs has the effect of lifting only a portion of the material and throwing it down again, instead of dumping the whole line simultaneously, as in the case of a plate extending the entire length. As only a portion of any one line is lifted at a time, the flour or meal at the spaces or intervals flows down through this space upon the section of the cloth next below, and is there intercepted by the alternating plate which faces this interval or space. In this way the masses formed in the bottom of the reel are being continually broken up and redistributed.

The construction of this device is very simple, and it can be readily and economically applied to either old or new bolts.

The length and number of the plates employed may be varied, of course, according to the work to be performed and the kind of grain to be bolted.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A bolting-reel whose ribs are provided with lifting-plates in short lengths, leaving spaces on each rib, the lifting-plates on each rib being arranged opposite a space on the adjacent rib, substantially as set forth.

This specification signed and witnessed this 12th day of August, 1878.

JAMES BARKLEY.

Witnesses:

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