

No. 747,605.

PATENTED DEC. 22, 1903.

W. S. HAYDEN.
DEVICE FOR SIFTING FLOUR, MEAL, OR THE LIKE.

APPLICATION FILED MAR. 25, 1903.

NO MODEL.

Fig 1

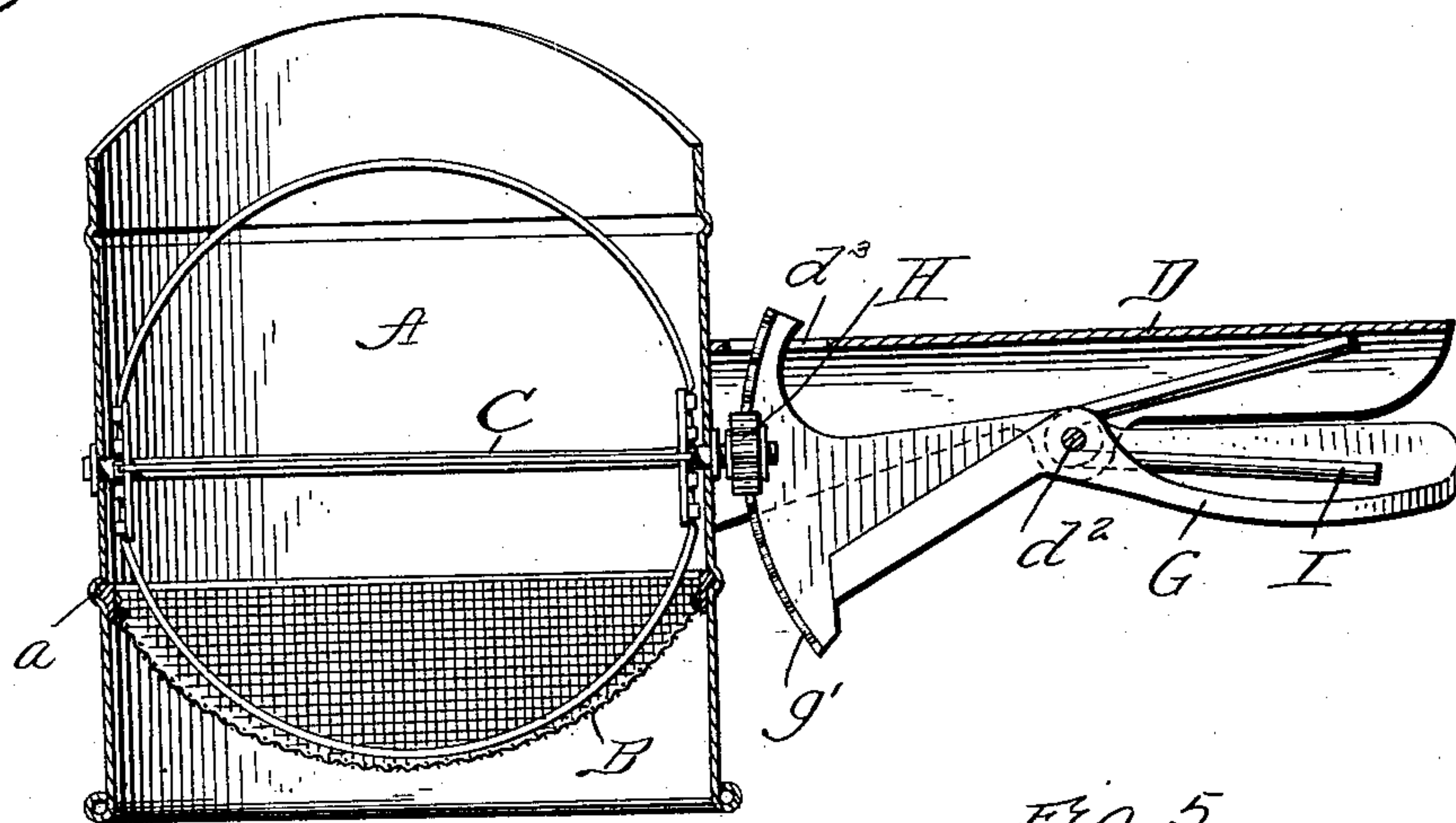


Fig. 2.

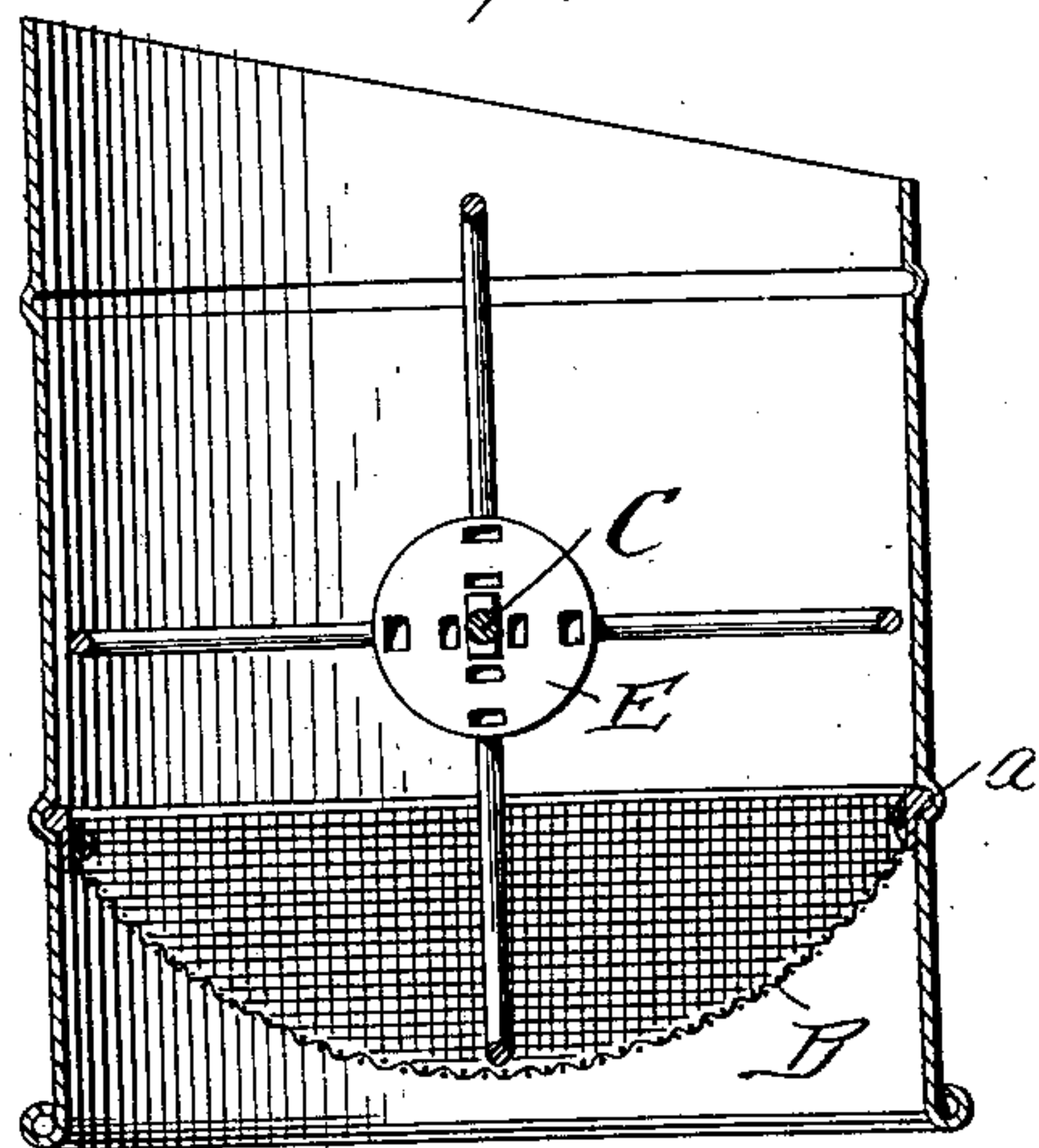


Fig. 5.

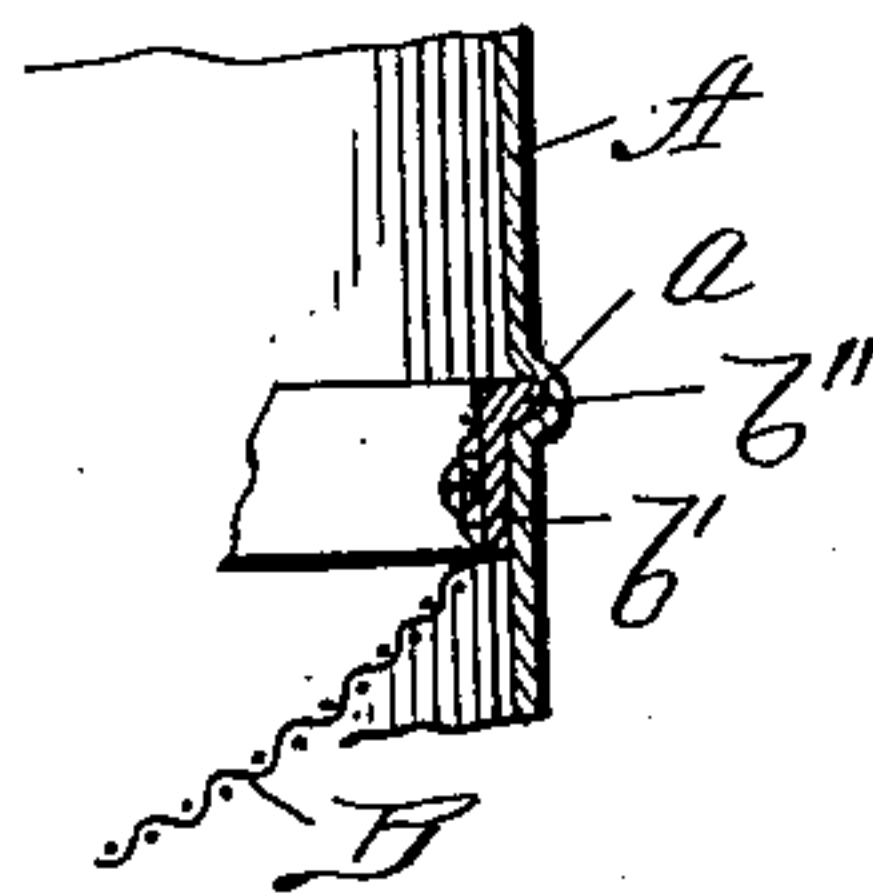


Fig. 3.

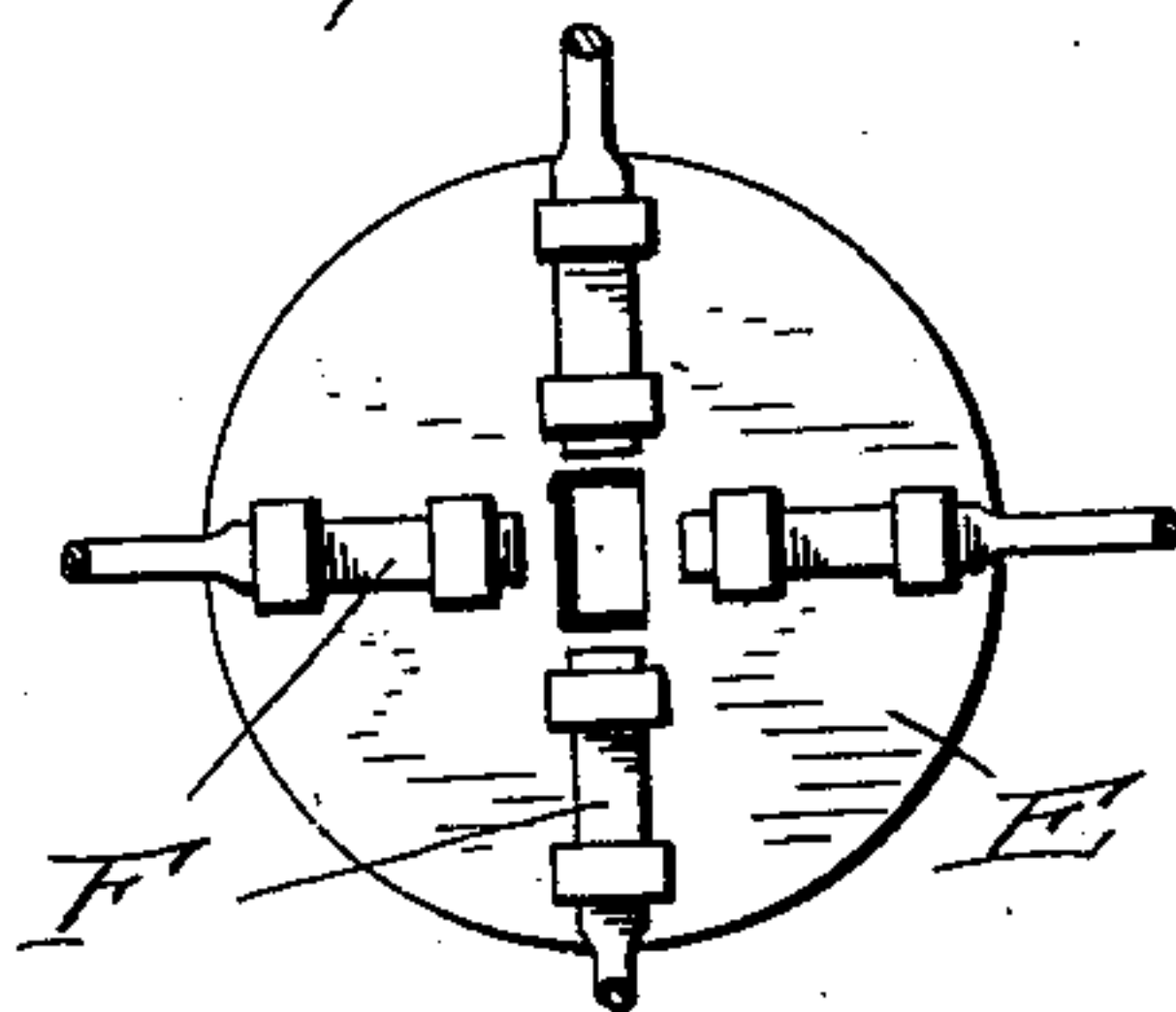


Fig. 4.

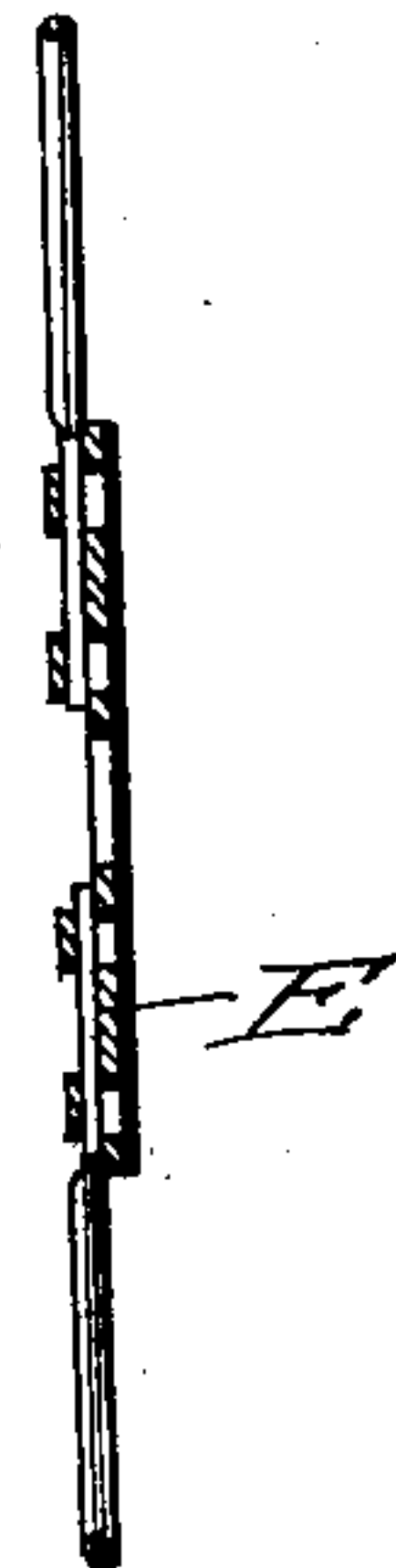


Fig. 7.

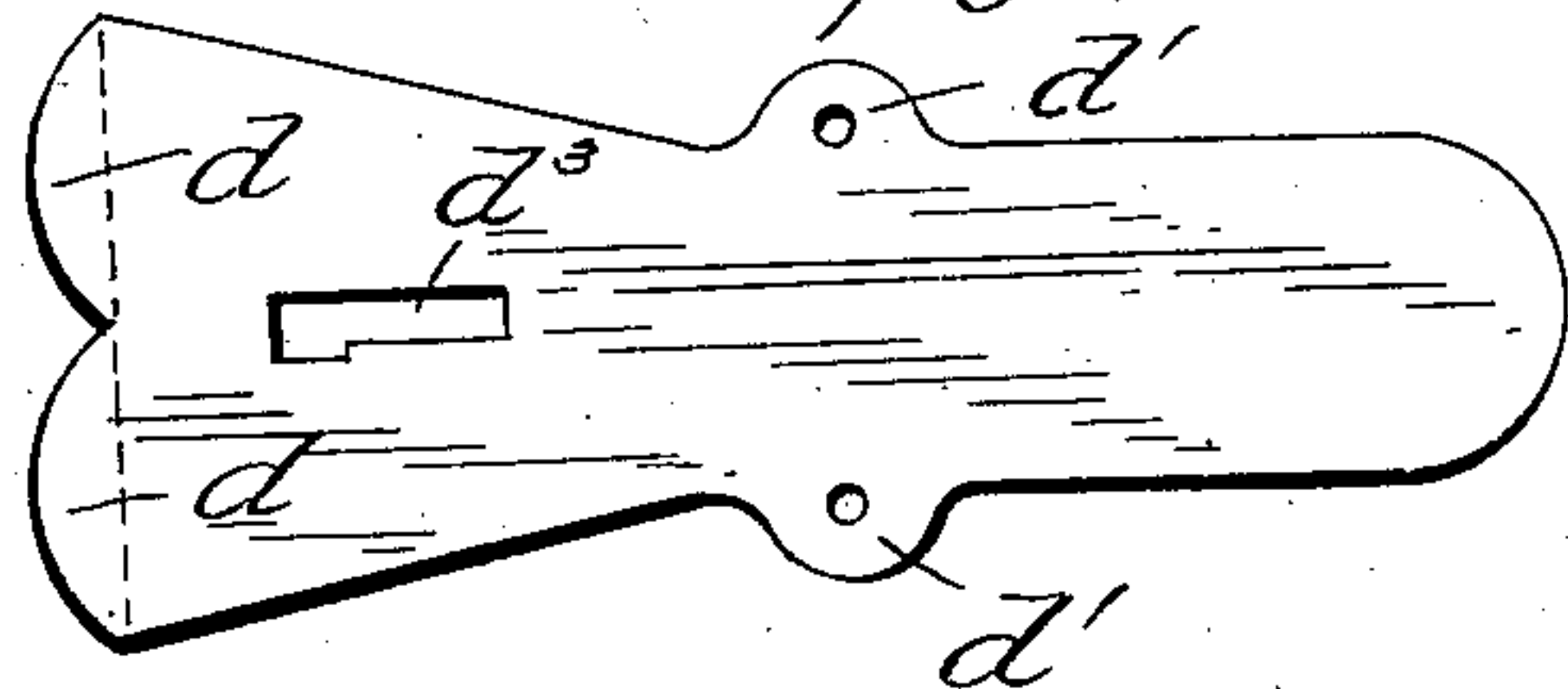
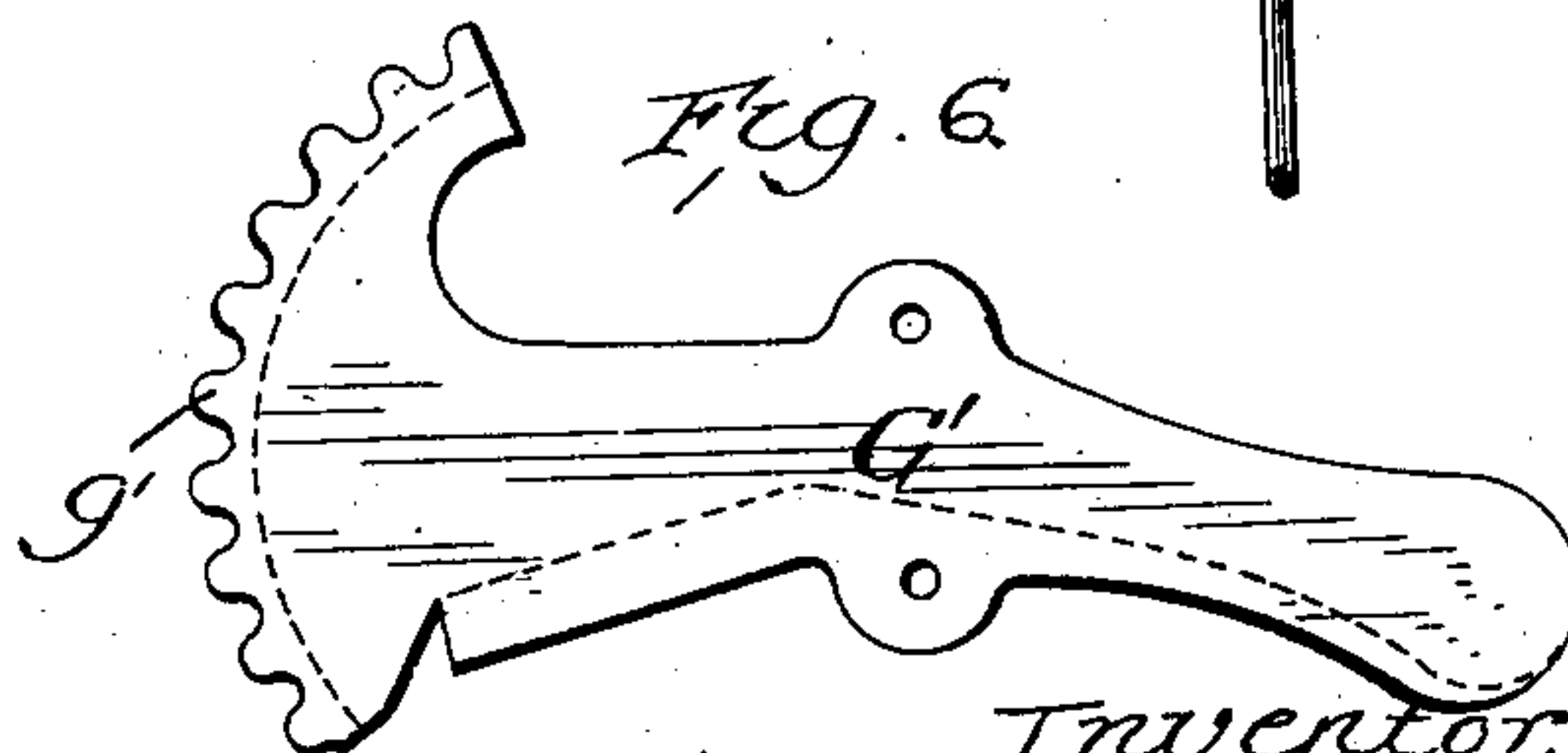


Fig. 6.



attest,
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UNITED STATES PATENT OFFICE.

WILLIAM S. HAYDEN, OF PUEBLO, COLORADO.

DEVICE FOR SIFTING FLOUR, MEAL, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 747,605, dated December 22, 1903.

Application filed March 25, 1903. Serial No. 149,529. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. HAYDEN, a citizen of the United States, residing at Pueblo, Colorado, have invented certain new and useful Improvements in Devices for Sifting Flour, Meal, or the Like, of which the following is a specification.

My invention relates to improvements in devices for sifting flour, meal, and the like, of that class in which a suitable receptacle is provided with a screen at or near its lower part and a rotary or oscillating agitator passing over the face of the screen.

The invention relates to the details of construction of the various parts and the manner of operating the agitator, all as hereinafter set forth, and more particularly pointed out in the claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of a sifter embodying my improvements. Fig. 2 is a section on line 2 2, Fig. 1. Fig. 3 is a detail view of one of the plates carrying the agitator-arms. Fig. 4 is a detail view of the said arms. Fig. 5 is a detail of the screen. Fig. 6 is a detail view showing the blank from which the lever for operating the agitator is made, and Fig. 7 is a view showing the blank from which the handle of the sifter is made.

Referring more particularly to these drawings, the body of the sifter is shown at A and comprises a cylindrical body open at top and bottom.

At B is indicated the sifter, which is preferably hemispherically-shaped and made of any suitable perforate material. I prefer to hold this removably in place within the body A in the following manner: The body A is provided with an annular groove or recess *a*, formed by swaging the material of the body outwardly. The upper edge of the sieve or screen material *b* is secured to an annular ring *b'*, (shown in Fig. 5,) which is preferably made of sheet metal and is provided with an annular bead *b''*, designed to spring outwardly and seat itself within the groove *a* of the body, and thus hold the sieve firmly but removably within the body A.

At C is indicated a shaft for carrying the agitator-arms, which is rotated in the manner hereinafter more fully described. The shaft

is arranged axially in line with the handle D of the sifter and is journaled in a suitable manner in the walls of the body A. Near each end it is provided with portions of irregular shape in cross-section. Disks E, of sheet metal, have central openings of similar irregular shape which engage the irregular portion of the rod, whereby when the rod is rotated the movement is imparted to the disks and through them to the agitator-arms in the manner which I will now describe. I prefer to use four agitator-arms, each of semicircular shape. The disks are provided with loops through which the ends of the arms F are threaded, and by means of this arrangement the arms are securely held to the disks without the use of solder, the metal of the disks being compressed around the ends of the arms. I prefer to flatten the ends of the arms, as indicated in Fig. 4, which facilitates the assembling of the parts and makes a stronger and more effective connection.

The handle D is formed from a blank of sheet metal of the shape shown in Fig. 7, which is bent into semicircular form in cross-section with the open side downward. The wings *d* are soldered or otherwise suitably secured to the face of the body A, and the wings *d'* come opposite each other to form a bearing for the shaft or pivot *d²* of the operating-lever G. This operating-lever is formed, preferably, from a sheet-metal blank of the shape indicated in Fig. 6, which has the body portion *G'* bent into a semicircle and arranged in reverse relation to the handle D. At its forward end the blank is provided with a series of teeth *g'*, forming a segment which is bent at right angles to the body of the lever and which is extended upward for some distance, as shown. The operating-lever is pivoted upon the shaft *d²* by means of the wings *d'*, before referred to, and the segment or rack *g'* engages a gear H, fastening on the shaft C. An opening *d³* is formed in the handle to permit the rack to work through the same. The lever is normally held with its rear end depressed and the rack raised by means of a spring I.

By the construction above described it will be seen that I provide a device which may be held and manipulated entirely by one hand. By simply pressing the hand upon the oper-

ating-lever and relieving the compression the agitator may be rapidly oscillated through the gear connections.

Having thus described my invention, what I claim is—

1. In combination with the body of a flour-sifter, a handle comprising an inverted-U-shaped portion, an opening in the upper surface of said U-shaped portion near the sifter, a lever pivoted between the vertical walls thereof, a segmental rack on the inner end of said lever operating through said opening and an agitator having a gear meshing with said rack, substantially as described.
2. In combination with the body of a flour-sifter, a handle comprising an inverted-U-

shaped member of sheet metal secured to said body and having an opening in its upper part near the said body, a sheet-metal hand-lever pivoted between the walls of said U-shaped portion and having a curved end turned at right angles and toothed to form a rack, an agitator-shaft journaled in the walls of the body in line with the handle, and a gear on said shaft within the handle and engaged by said rack, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM S. HAYDEN.

Witnesses:

GEO. P. DICKERMAN,
JOHN A. MARTIN.