

WIDGER & READ.
Grain Toller.

No. 83,428.

Patented Oct. 27, 1868.

Fig. 1.

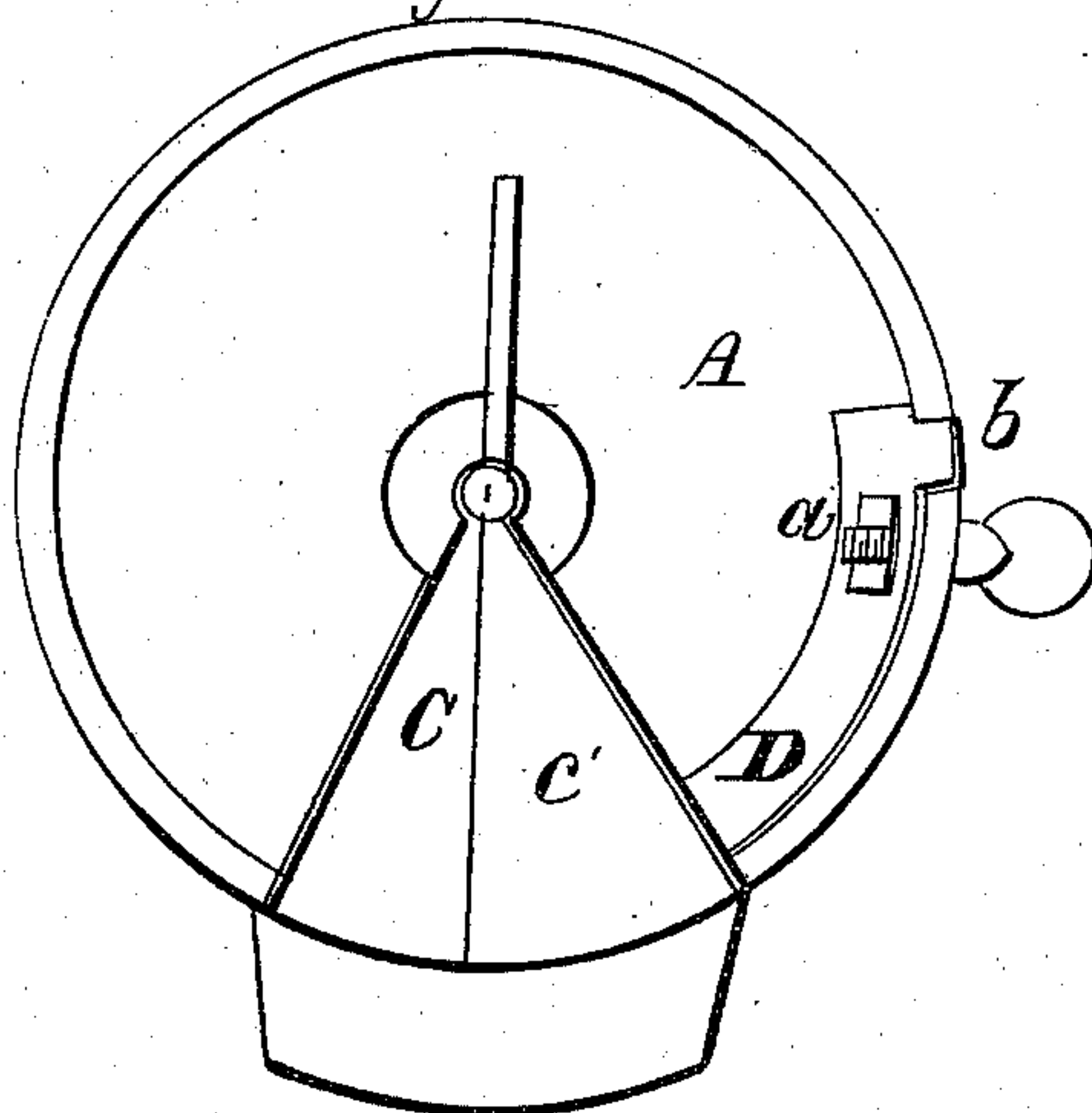
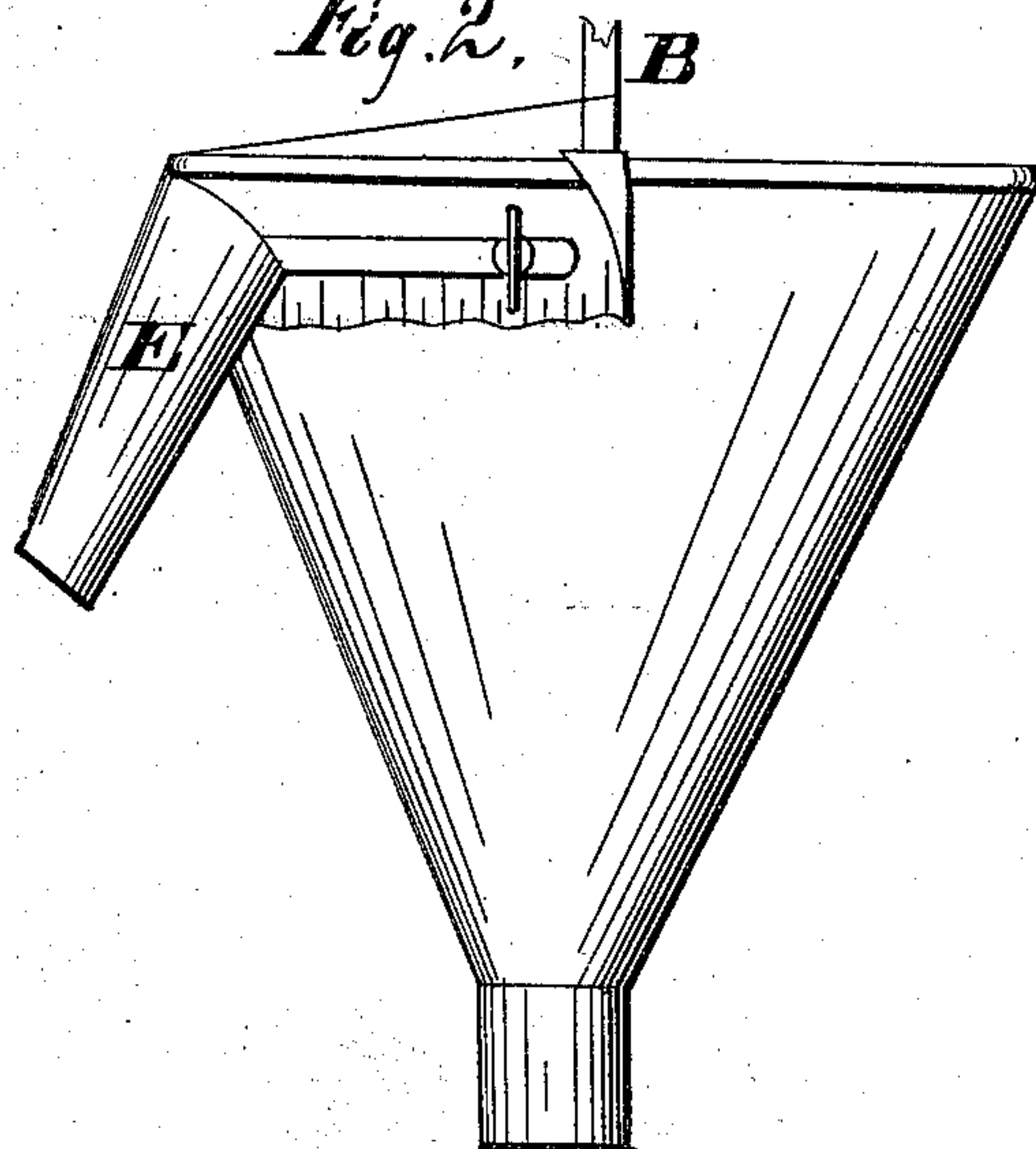


Fig. 2.



Witnesses.
H. C. Morgan
C. C. Cotton

Inventors.
W. S. Widger
H. M. Read
per Murray & Co.
Attorneys

United States Patent Office.

WILLIAM S. WIDGER AND WILLIAM M. READ, OF FAIRFIELD,
IOWA.

Letters Patent No. 83,428, dated October 27, 1868.

IMPROVED APPARATUS FOR TOLLING GRAIN.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, WILLIAM S. WIDGER and WILLIAM M. READ, of Fairfield, in the county of Jefferson, and State of Iowa, have invented a new and useful Improvement in Apparatus for Tolling Grain; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a plan or top view of our improved apparatus, and

Figure 2 represents a side elevation of the same.

Similar letters of reference indicate like parts.

The object of this invention is to provide a simple and reliable means for automatically tolling grain in grist-mills.

It consists of a rotary funnel, provided with a spout that may be adjusted to the same fractional portion of the surface of the mouth of the funnel as the fractional part of the grain to be taken. This funnel is so arranged that the grain must pass through it while it is in rotary motion. The area of the spout is proportional to the entire area of the mouth of the funnel. For instance, the area of the spout may be to that of the mouth of the funnel, as 1 to 6. At each revolution of the funnel, the spout receives and conveys away a certain proportion of the entire amount of grain falling into the funnel. This proportion may be varied by adjusting the spout. Thus, if, as before stated, the area of the spout, when fully extended, be to the area of the mouth of the funnel, as 1 to 6, then the area of the spout when half open will be to the area of the mouth of the funnel, as 1 to 12. The proportion may be varied to a greater or less degree, as may be desired, as will be more fully described on reference to the accompanying drawings, wherein—

A represents a funnel provided with a shaft, B, which is rigidly secured to it, and arranged so as to suspend the funnel under a spout, in a position to be rotated by a belt working over a pulley on the said shaft.

C represents a spout, the inner end of which is fixed to the shaft, and the outer end to the side of the funnel, in a recess therein. The said spout is made of

two parts, one of which, C', is arranged to oscillate on the shaft B, and is provided with a curved arm, D, fitted to the curvature of the funnel, and provided at its outer end with a boss, *a*, and a lip, *b*, the latter being bent over the edge of the funnel, serving as a guide for the arm D. A set-screw is fitted into the boss *a*, passing through a slot in the side of the funnel, whereby the spout C may be adjusted to and secured at any desired fractional portion of the area of the mouth of the funnel, within the united capacity of the two parts of the spout.

E represents a fixed spout on the outside of the funnel, communicating with the mouth of the spout C.

In using our improved apparatus, we arrange it under a spout through which the grist to be tolled is to pass, so that the grain must also pass through the funnel, and set it into rotary motion, whereby the spout C will, at each revolution, receive a portion of the passing grain, and convey it out of the spout or channel through which the grist flows. The amount so received by the spout C will be a certain proportion of the entire amount of grain falling into the funnel, according to the relative areas of the spout and the funnel. The spout may be adjusted to the fractional part of the funnel corresponding to the part to be taken from the grain, and the funnel may be provided with a scale to which the lip *b* may also serve as a pointer to indicate the proper position for setting the spout for the different parts to be taken.

Instead of a funnel-shaped vessel, a cylindrical tube may be used, but we prefer, for convenience, to make them in the form of a funnel.

Having thus described our invention,

We claim as new, and desire to secure by Letters Patent—

The rotary funnel A, having a spout provided with the movable part C', adjusted by means of the slot and set-screw, all arranged and operating substantially as herein set forth.

WILLIAM S. WIDGER.
WM. M. READ.

Witnesses:

JOHN C. READ,
JOHN S. SULLIVAN.