G. Parker,

Feed Regulator.

No. 95,829. Patented Oct. 12. 1869.

Fig. 1.

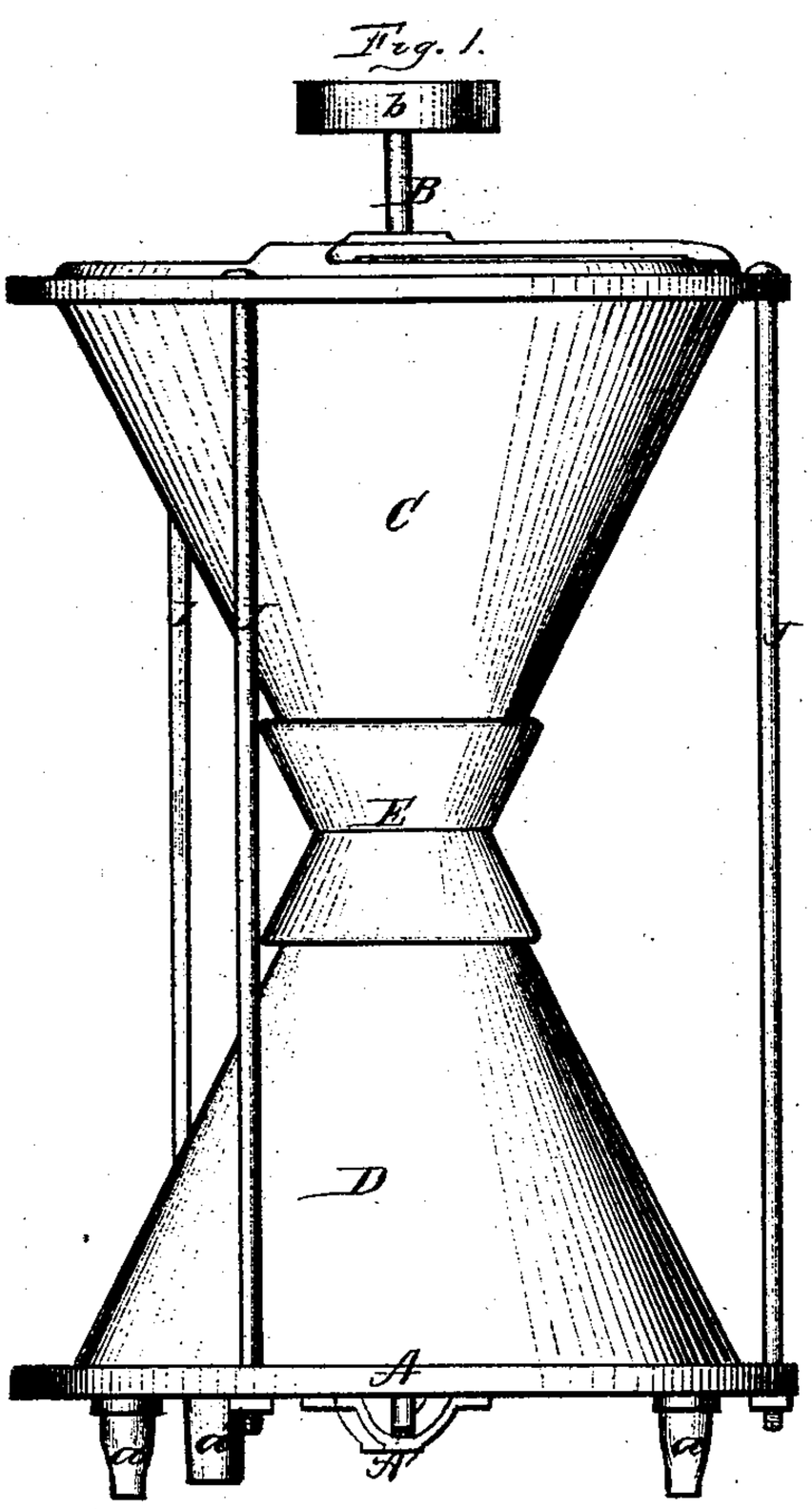
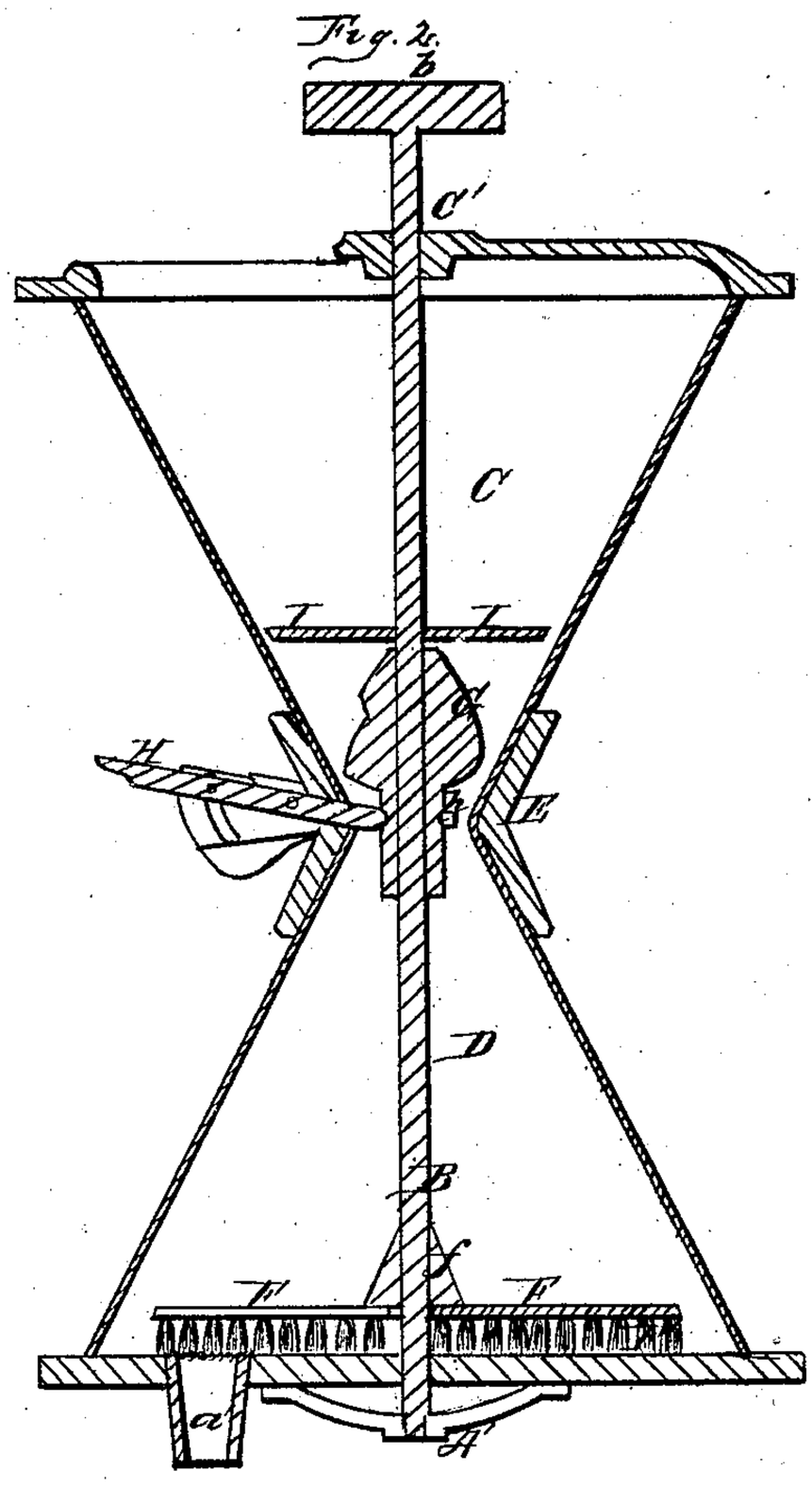


Fig. 2.



Witnesses
C. F. Brown.
S. J. Noyes

Inventor.
George Parker by
H. W. Beall Atty

United States Patent Office.

GEORGE PARKER, OF POUGHKEEPSIE, NEW YORK.

Letters Patent No. 95,829, *dated October* 12, 1869.

IMPROVED FEED FOR GRINDING-MILLS.

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

To all whom it may concern:

Be it known that I, GEORGE PARKER, of Poughkeepsie, in the county of Dutchess, and State of New York, have invented a new and useful Machine for Feeding Flour and other similar substances; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists of a machine of novel construction, which is intended for use in feeding flour and other similar substances to the stone of a grinding-mill, when it is desired to grind over or mix the said substance with grain which is in the process of being ground.

Its novelty consists,

First, in the construction and arrangement of the valve, by means of which the delivery of the substance is regulated.

Second, in the employment of a chamber above the valve, in which the great bulk of the substance to be mixed is held, and its weight thereby prevented from bearing upon the conveyers.

It further consists also in certain details of construction, and the general combination and arrangement of the various parts.

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

A represents a circular base, supported upon the legs *a a a*, which is provided with an orifice, *a'*, and step A' beneath it, in which latter rests the lower end of the shaft B, as shown. This base has also one or more suitable openings, covered with wire screens, through which the substance to be mixed is discharged into any suitable spout-arrangement connecting with the eye of the stone.

The shaft B has its upper bearing in the circular plate C', as shown, and is provided at its extreme end with the pulley *b*.

C and D represent cone-shaped chambers, the apexes of which are united by the centre-piece E, which flares in both directions to receive them, as shown in fig. 1.

Upon the lower end of the shaft B are placed the arms F, which form the conveyers. They are arranged at an angle to each other, and are united in the centre by a cone-shaped hub or block, *f*.

Underneath these arms the brushes F' are attached, as shown in fig. 2.

Upon the shaft B is also located the valve G. This valve is attached to the shaft in such a manner as to move freely perpendicularly, while at the same time it is compelled to revolve with the shaft.

It is constructed with a circular groove about its lower part, in which the fingers *h h* of the adjusting-lever H rest.

The upper part of the valve is cone-shaped, and is cut spirally, as shown.

The lever H has its fulcrum in suitable bearings upon the piece E, which is slotted to admit its entrance therein, and it is provided with a slotted plate and set-screw, in order that it may be firmly held at any desired point.

The valve is so located upon the shaft that when the lever H is raised, its consequent depression closes the opening between the two chambers. By adjusting the lever suitably, the supply is regulated at will.

I I represent stirrers, which consist of flat arms obliquely placed upon the shaft B, as shown.

J J J represent rods, by which the machine is securely held together.

The operation of my machine is as follows:

The flour or other substance to be mixed with the grain being ground, is placed in the chamber D.

If desired, the latter may be connected by a spout or other suitable means, directly to the bin. The valve should then be adjusted at the proper point to permit the delivery of the desired quantity. The machine now being set in motion, the flour will be delivered through the discharge-orifices in a constant, regular flow.

The stirrers serve to agitate the contents of the chamber and prevent their clogging, and also to break up any lumps which may have formed.

The spirally-cut cone of the valve, by its rapid revolution, produces a strong downward draught, which materially facilitates the movement of the flour. This cone may be constructed separately from the valve if desired, but the arrangement shown is believed to be the best.

As the flour enters the lower chamber C, it falls upon the cone *f*, and is equally distributed about the chamber. The conveyers, by their revolution, also assist in making a draught, and sweep the flour, as fast as received, to the orifice where it is discharged.

The machine itself should be located above the stone, so that the flour may fall thereto by its own weight. It may be made of any desired size, but one about the size of a flour-barrel will be large enough for ordinary use.

The ordinary method of feeding the flour to the stone for such purposes has been to use a scoop. This method not only requires the constant services of a laborer, but the supply must necessarily be more or less irregularly furnished, and consequently the mixture is unevenly made.

My machine requires no care after having been properly adjusted, and the delivery is uniform in quantity.

By the employment of an upper chamber in which the bulk of the substance to be mixed is kept, the conveyers are relieved from the excessive weight which must otherwise rest upon them, and the machine can consequently be run with much less power.

Having thus fully described my invention,

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

1. The cone-shaped valve G, spirally cut, as and for the purpose set forth.

2. The chamber C, provided with any suitable valve-arrangement, in combination with the chamber D, having the conveyers F, as and for the purpose described.

3. The machine described, consisting of the base A, shaft B, chambers C and D, centre-piece E, conveyers F, valve G, lever H, and stirrers I, when combined and arranged as and for the purpose described.

This specification signed and witnessed, this 11th day of August, 1869.

GEORGE PARKER.

Witnesses:

ROBERT E. TAYLOR,

JOHN G. PARKER.