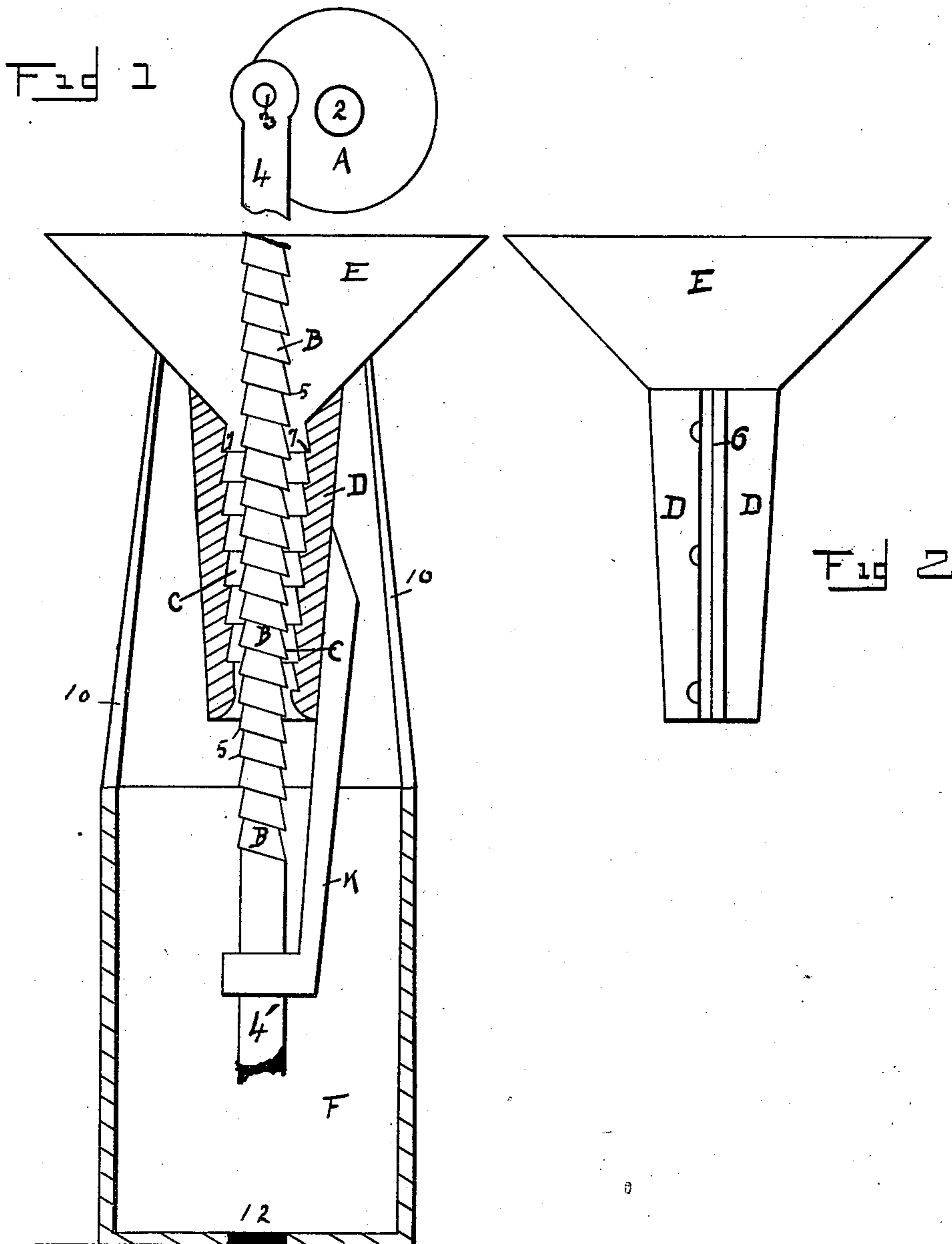


(No Model.)

W. MANN.
MILLING ATTACHMENT FOR PUMPS.

No. 548,125.

Patented Oct. 15, 1895.



WITNESSES:

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WILLIAM MANN, OF HAY SPRINGS, NEBRASKA.

MILLING ATTACHMENT FOR PUMPS.

SPECIFICATION forming part of Letters Patent No. 548,125, dated October 15, 1895.

Application filed November 26, 1894. Serial No. 530,004. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MANN, residing at Hay Springs, in the county of Sheridan and State of Nebraska, have invented certain useful Improvements in Milling Attachments for Pumps; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention has relation to a new and novel milling attachment more particularly adapted to be used in connection with a pump.

In the accompanying drawings, Figure 1 shows a central sectional view of a reciprocating pump-rod provided with my improved milling attachment, while Fig. 2 shows a side elevation of the hopper as detached.

A represents an ordinary disk, which forms part of the shaft 2, as is usually employed in windmills, the motion-imparting blades or vanes being secured to this shaft, as is usual in windmills. To the disk A, by means of a wrist-pin 3, is secured the usual reciprocating pump-rod 4', which extends down into the pump-well, as is well understood by those familiar with the art. The aim of my invention is more particularly to make this reciprocating pump-rod 4' perform a double function. In accomplishing this I provide this bar 4' with a series of conical collars B, which extend any suitable distance and form an integral part of the rod. These collars represent each the form of the frustum of a cone, having its axis cut by two parallel planes oblique to the axis by which the cone is generated and the frusta placed coaxially one with another to form a central grinder. The angular portion, however, extending laterally and forming a sharp angle, as is shown at the points marked 5, works within a suitable housing D, of any suitable metal, and is preferably made in two parts, having the connecting-flange 6, by means of which this two-part housing is connected. Interiorly I provide this housing, which is preferably conical, with

a series of serrations C, which serrations are preferably of an increasing diameter from the top of each one to its bottom, but their angles preferably being in a horizontal plane. These angles form openings in the shape of a truncated cone, the base forming the largest diameter. It will be noticed that the reciprocating rod B also forms, as it were, a series of truncated cone-sections, the lower edge of which, however, is at an angle to that formed by the sections within the housing D. Above I provide this two-part housing with an ordinary hopper E, the whole being sustained by means of suitable brace-bars 10, forming part of a bin F. Below this bin is provided with an opening 12, through which the pump-rod extends into the well. These instrumentalities can be arranged at any point of the pump-rod, it being, of course, understood that the pump-rod 4' is held and is simply guided in a reciprocating vertical position, the upper end of the pump-rod being provided with an ordinary joint. In the drawings this joint is not shown, as it does not form any part of the invention. When all the instrumentalities have been properly arranged, the operation of my device would be as follows:

The hopper E would be filled with any suitable grain to be milled, and as the pump-rod 4' would reciprocate it would gradually engage some of the kernels and carry them into the housing D, where the succeeding serrations B of the rod would successively engage the same and remove parts, which parts would, of course, be carried into the communicating serrated opening, and so on down to the smallest opening, where it would issue in the form of a meal. To further guide the pump-rod 4' I have provided a bracket K, extending from the housing D, as shown.

Now, having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

In a milling attachment for pumps the combination with a pump rod, said rod being provided with a succession of collars forming an integral part of said rod, said collars being in the form of the frustum of a cone having its

axis cut by two parallel planes oblique to the axis by which the cone is generated, the frusta being placed coaxially one with another to form a central grinder, and the two part
5 housing, D, said housing being provided with a series of serrations or conical seatings, C, their base being preferably in a horizontal plane, said housing being open-ended and

being provided above with the hopper, E, all substantially as and for the purpose set forth. r 2

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

WILLIAM MANN.

Witnesses:

CHARLES MANN,
LEVI HALLSTED.