P. STEVENS.

MIXER.

APPLICATION FILED FEB. 23, 1918.

1,293,570.

Patented Feb. 4, 1919.

Fig. 1.

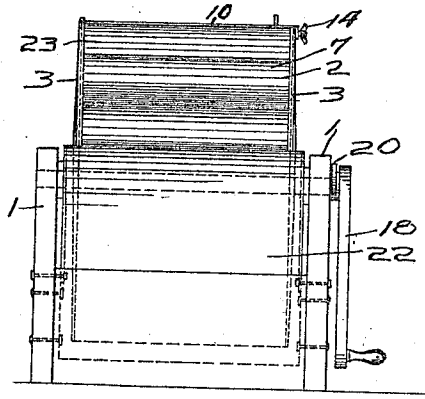


Fig. 2.

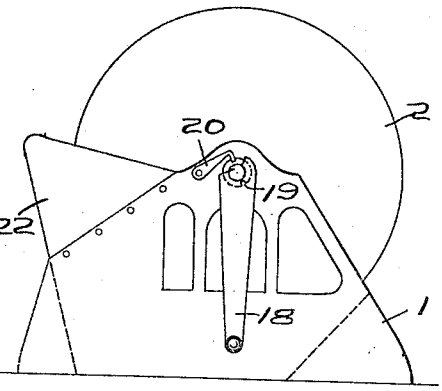


Fig. 4.

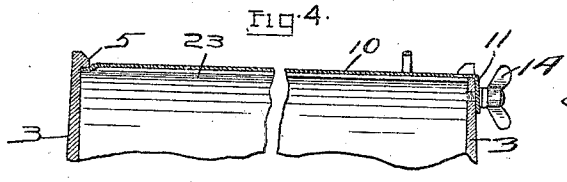


Fig 5.

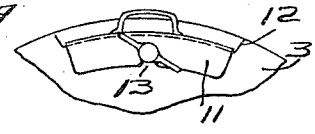


Fig 3

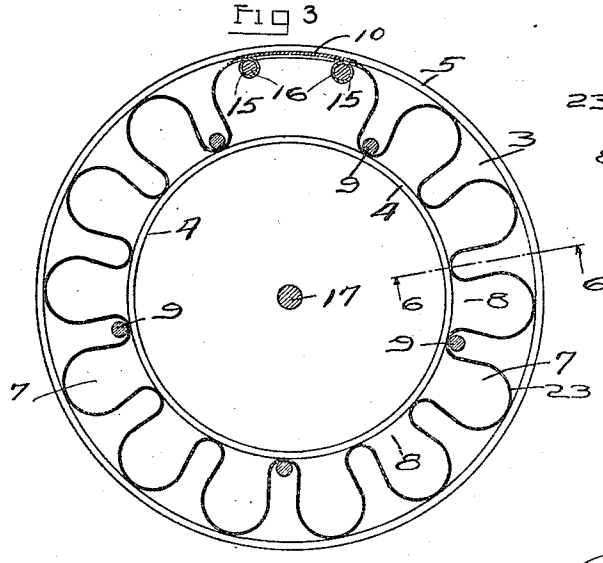
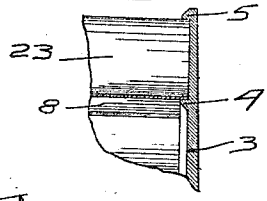


Fig. 6.



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by

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UNITED STATES PATENT OFFICE.

PHILIP STEVENS, OF ADAMS TOWNSHIP, LUCAS COUNTY, OHIO.

MIXER.

1,293,570. Specification of Letters Patent. Patented Feb. 4, 1919.

Application filed February 23, 1918. Serial No. 218,812.

To all whom it may concern:

Be it known that I, PHILIP STEVENS, a citizen of the United States, and a resident of Adams township, Lucas county, in the State of Ohio, have invented a certain new and useful Mixer; and I do hereby declare the following to be 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, and to the characters of reference marked thereon, which form a part of this specification.

My invention relates to mixers. It particularly relates to mixers for mixing dry materials such as feed for stock, also for mixing grains for poultry, and the like.

The invention may be contained in different forms of construction and used for different purposes. I have selected a form of construction containing the invention as an example of such constructions and shall describe it hereinafter. The construction selected is illustrated in the accompanying drawings.

Figure 1 of the drawings is a side view of a feed mixer, Fig. 2 is an end view, Fig. 3 is a sectional view of the mixing drum, Fig. 4 is a sectional view showing the manner of securing the cover. Fig. 5 is an end view of the cover, Fig. 6 is a sectional view taken on the line 6—6 indicated in Fig. 3.

1, Fig. 1, is a frame on which is supported a drum 2. The drum 2 is provided with end plates or castings 3 forming the heads of the drum. The plates or heads 3 are provided with flanges 4 and 5. Between the heads 3 and the flanges 4 and 5 is located a deep corrugated or sinuous band forming the side of the drum. The sinuous side forms a plurality of pockets 7, each of which is made narrower at the mouth 8 than at a point substantially the center of the pocket. Moreover, the pockets are made considerably wider than the distances between the adjoining sides of the adjoining pockets. These dimensions however may be changed without departing from the spirit of the invention, the pockets being of sufficient depth and size to gather and hold the material and carry portions of it up over the top of the material when the drum is rotated.

The sinuous band 23 is held in place between the flanges 4 and 5 and between the head 3 by means of the tie bolts 9 located preferably on the outside of the band or side of the drum but in close proximity of the inner flange 4. When the parts are thus secured together by the tie bolts 9, the side and the pockets are held in position and bulging is prevented. By this arrangement, the parts may be readily assembled and secured together.

The drum is provided with a cover 10, one end of which fits under the flange 5, the other end being provided with a flange 11 that overlaps one of the heads 3, a portion of the head 3 being cut away as at 12 to receive one end of the cover 10. The flange 11 is provided with a notch or slot 13 in which is located a winged screw 14 that is threaded into one of the heads 3. In securing the cover in position, one end is inserted under the flange 5 of one head and the cover is then placed over the ends 15 of the side of the drum and the flange 11 is pushed down between the winged nut 14 and the other head 3, whereupon the winged nut 14 may be screwed down so as to bind on the flange 11 and hold the cover 10 in its position. If desired, bolts 16 may be located within the ends 15 and beneath the edges of the cover. The bolts 16 are placed close to the flange 5 and the ends 15 may be turned or bent around the bolts 16 so as to securely hold the ends of the side 7 and prevent their being bent in filling the drum from bags or baskets or receptacles from which the grain is poured into the drum.

The drum is suitably supported on the standard 1 by means of a shaft 17 that passes through the drum. The shaft 17 is connected to a crank 18 whereby the drum may be rotated by a turning of the crank 18. The shank of the crank 18 may be provided with notches 19 and a pawl 20 may be attached to the side of the standard 1 for locking the drum in two positions, one in its filling position, namely, when the cover is located in the upper side of the drum and in the position of emptying the drum, namely, when the opening that is normally closed by the cover is located on the under side of the drum. A hopper 22 formed of sheet metal may be located around the drum to receive the material from the drum, particularly when it is being emptied whereby the material may be directed into a bin or chute.

I claim:

In a mixer, a drum having end plates, a

pair of flanges located on each end plate, a sinuous side wall located between the flanges and the end plates, edges of the end plates extending back and forth between the flanges, the side wall forming curved pockets, bolts for securing the end plates and the side wall of the drum together, two of said bolts located in spaced relation, the ends of the side wall being bent around the said two last named bolts, a cover supported on the ends of the side walls and the two last named bolts and means for securing the cover in closed position.

In testimony whereof, I have hereunto signed my name to this specification.

PHILIP STEVENS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."