July 12, 1927. 1,635,925

M. C. CARLSON

BOLTER

Filed Oct. 12, 1926

Fig. 1.

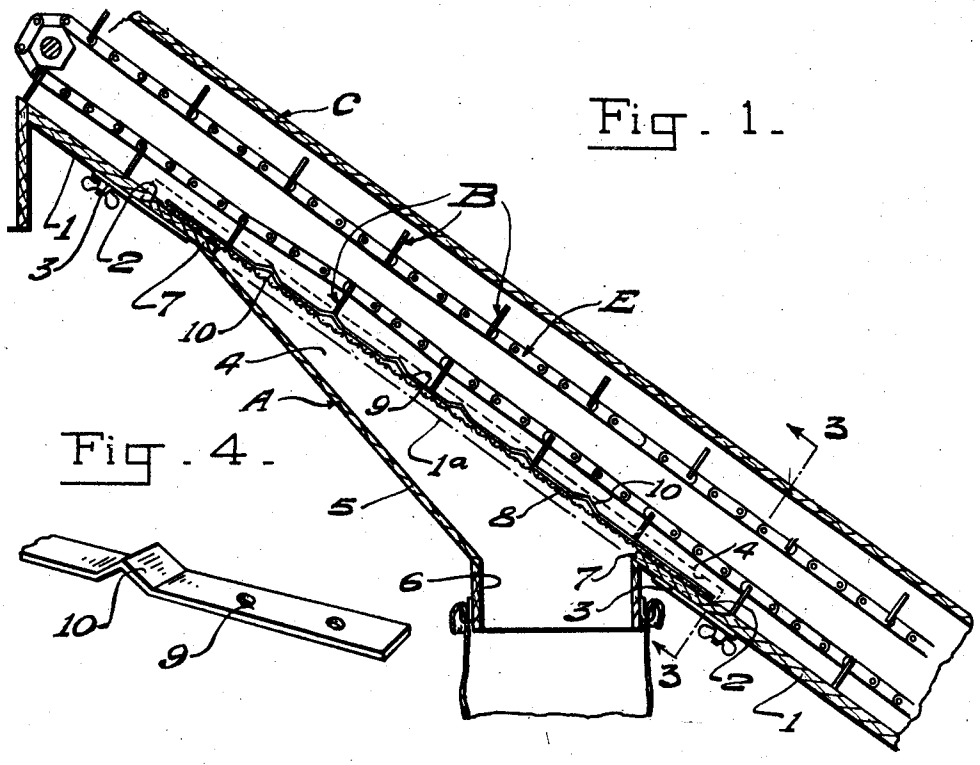


Fig. 4.

Fig. 2.

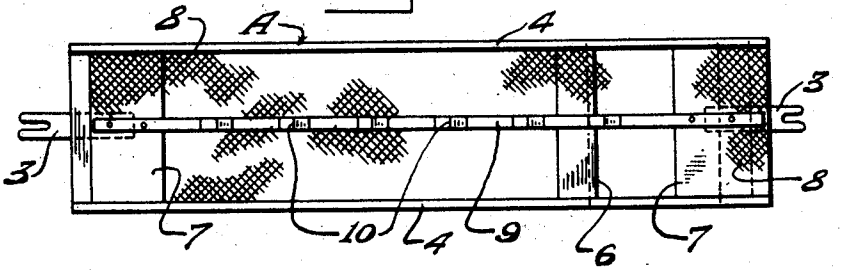
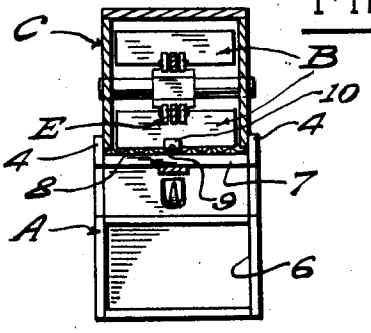


Fig. 3.



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UNITED STATES PATENT OFFICE.

MARVID C. CARLSON, OF FORT DODGE, IOWA.

BOLTER.

Application filed October 12, 1926. Serial No. 141,142.

This invention relates to bolters and it is primarily an object of the invention to provide a device of this kind adapted to be employed in connection with the elevator of a feed mill and which provides an effective medium to recover or separate flour or meal passing upwardly of the elevator.

Another object of the invention is to provide a device of this kind which may be readily applied to or removed from working position and which is also provided with means to assure an effective agitation or turning over of the material as it passes upwardly of the elevator to assure a maximum separation or recovery of the flour or meal.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved bolter whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein:—

Figure 1 is a view partly in section and partly in elevation illustrating a bolter constructed in accordance with an embodiment of my invention in applied position, the removable bottom portion being indicated by broken lines;

Figure 2 is a view in top plan of the bolter as herein disclosed unapplied;

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 1;

Figure 4 is a fragmentary view in perspective of the agitating member herein employed.

As disclosed in the accompanying drawing, C denotes the casing or frame of a bolter leading from the feed mill and in which travels an endless chain E provided therealong at desired intervals with the scraper bars B. The upper stretch of the chain E and the bars B carried thereby travel along the bottom wall 1 of the casing or frame C.

A portion of the bottom wall 1 is cut away, as at 2, and which, when desired, may be closed by the bottom section 1^a held in place by the latches 3.

The bolter A when applied underlies the cut away portion 2 of the casing or frame C and is held in applied position by the latches 3 hereinbefore referred to. The bolter A, as herein disclosed, comprises the side members 4 and the bottom 5 inclined toward the lower end of the bolter when in applied position, said inclined bottom delivering within a spout 6 arranged at the low point of the bottom 5 and into which said bottom discharges. This spout 6 is adapted to have engaged therewith the mouth portion of a sack or the like to collect the separated flour or meal.

The opposite end portions of the side members 4 of the bolter A are connected by the cross pieces or members 7 and suitably fixed to said cross pieces or members 7 and the upper portions of the side members 4 is a separating element or screen 8 of desired mesh and through which the flour or meal passes as the material carried upwardly of the elevator passes thereover.

Extending lengthwise of the bolter A and secured to the cross pieces or members 7 is an elongated member or rod 9 provided at predetermined points therealong with the upstanding arms 10. As the chain E and the bars B pass upwardly of the elevator, the arms 10 will cause the chain and bars to effectively agitate the material passing over the bolter and in fact substantially turn the same over whereby the separation of the flour or meal is effected to a maximum degree.

From the foregoing description it is thought to be obvious that a bolter constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of

the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:—

A bolter comprising, in combination, a plane screen, a flexible conveyor in proximity to the screen and having bars movable thereover, and an undulating track adapted to move the conveyor bars away from and towards the screen surface at an angle thereto to agitate the material while conveying the same over the screen.

In testimony whereof I hereunto affix my signature.

MARVID C. CARLSON.