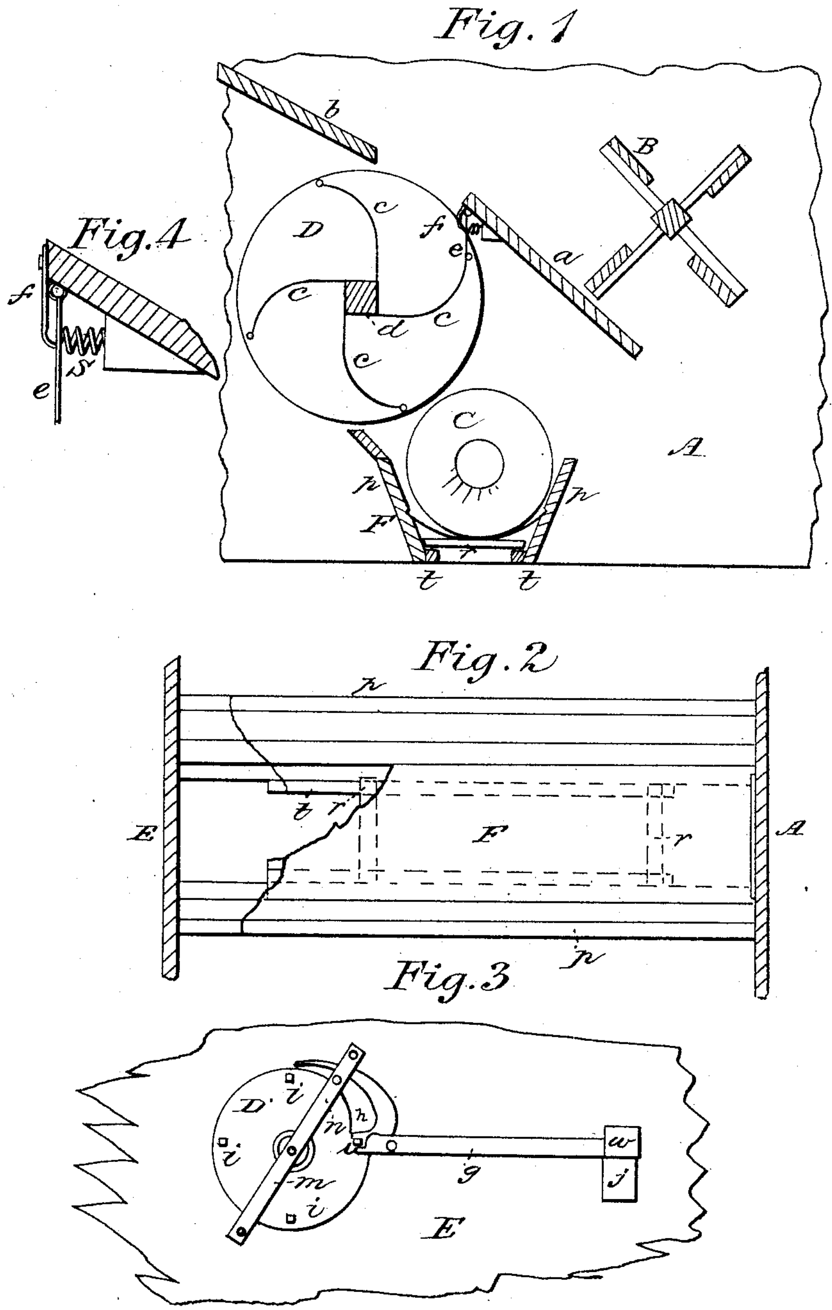
F. G. CHESMAN.

Thrashing Machine.

No. 112,782. Patented Mar. 21, 1871.



Witnesses:

Inventor:

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FRANCIS G. CHESMAN, OF LEMONT, ILLINOIS.

Letters Patent No. 112,782, dated March 21, 1871.

IMPROVEMENT IN THRASHING-MACHINES.

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

I, FRANCIS G. CHESMAN, of the town of Lemont, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Thrashing-Machines, of which the following is a full description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal vertical section.

Figure 2, a top view of the trough in which the conveyer revolves.

Figure 3 shows a scale-beam and a device for arresting the movement of the measuring-bucket.

Figure 4, an enlarged detail.

My invention consists—

First, in the combination of a rotating meter with a thrashing and grain-cleaning machine;

Second, in a novel device for regulating or arresting the movement of the meter; and

Third, in so constructing the bottom of the receiving trough that the grain may be drawn from either end thereof.

In the drawing only so much of a thrashing-machine is shown as is necessary to illustrate my improvements. If the whole machine were shown the front would be to the right hand in figs. 1 and 3.

A represents a part of the case or frame of a thrashing-machine, at or near the rear thereof.

B is the fan.

a is a dividing-board.

b, the bottom-board of the shoe beneath the sieves. These parts are constructed and arranged in the usual manner.

C is the conveyer, revolving in a trough below the meter. This trough and conveyer I locate a little further forward than usual in order to make more room for my meter.

Upon a revolving-shaft, *d*, are buckets *c*, and at each end is a head, D D'.

The heads are from fourteen to sixteen inches in diameter, and the buckets long enough to nearly fill the space between the two sides of the machine.

The shaft *d* revolves in suitable bearing at each end, and is located, as shown in fig. 1, below *b* and above and back of the conveyer C.

By changing the location of C, as mentioned, and making the heads D D' small, and the buckets *c* long, I am able to place the buckets in the position shown, and in any thrashing-machine.

To the upper edge of dividing-band *a* I hinge a light strip of board or metal as long as the buckets, and of such width that its lower edge will be just above the edge of the bucket which is in position to be filled. In front of this strip *e* is a stop, *f*, to prevent the same from passing too far over the edge of the buckets, and back of the same is a suitable spring, *s*, allowing the movement of the strip, but holding it against the stop when at rest.

E, fig. 3, is a part of the case of the machine opposite to A and seen from the outside.

g is a scale-beam.

w, a movable weight.

j, a stop for the outer end of the scale-beam.

Four pins, *i*, project from the head D'.

h is a weighted lever, pivoted at *n* between the head D' and the bar *m*, which lever is in the position shown when at rest; the weighted end being just over the pin *i*, which is just above the end of the short arm of the scale-beam, this being also the position of the several parts while one of the measuring-buckets *c* is filling.

The operation of this part of my invention is as follows:

The thrashed grain passes into one of the buckets from the bottom of the shoe *b*, and when the proper quantity has thus passed in, its weight overcoming the weight upon the scale-beam, causes the shaft *d* to perform a partial revolution, the grain falling into the trough F below; at the same time the next pin comes in contact with the inner edge of the long arm of the lever *h*, depressing the short arm thereof so that the next pin comes in contact with it, arresting the movement of the shaft *d* and buckets and preventing the momentum of the buckets from carrying them too far; the next bucket coming into position to be filled presses back the strip *e* until the edge of the bucket passes below it, when the spring forces the strip back to its natural position just over the edge of the bucket.

If by accident chaff should pass with the grain into the bucket, or if the grain be very light, filling the bucket above the edge, it, the grain, will not overflow, being retained by the strip *e*. If this strip were stationary, chaff or straw might catch between it and the edge of a bucket, stopping the movement thereof, but this cannot happen when the strip *e* is hinged.

I make the bottom of the trough in which the conveyer C revolves shorter than the trough, and moveable, so that it can be moved from one side to the other, and the grain discharged into a receptacle placed beneath the machine instead of through the side thereof as is customary.

F, fig. 2, represents the bottom of the trough.

p p, the sides.

r r, cross-bars, one at each end to support F.

t t, longitudinal bars, on which the cross-bars *r r* rest and slide.

One end of said bottom can be brought in contact with the frame A, leaving an open space at the other end through which the grain may fall into a suitable receptacle beneath the machine, or its posi-

tion may be reversed, and, the driving-band being crossed as usual, the grain will be discharged from the other end.

The measuring-buckets are so arranged and located that no cut-off is necessary; the moment that the filled bucket begins to descend the grain at once begins to fall into the next without waste, and the passage of grain into the filled bucket at once ceases.

Any known or suitable device for registering the quantity of grain passed through the machine may be attached to the meter.

The sides of the trough are stationary; the bottom F with the cross-bars *r r* only are movable.

Grooves may be provided in the sides *p p*, (shown in fig. 2,) to receive the edges of the bottom F.

What I claim as new is—

1. The combination of the revolving grain-meter D with a thrashing-machine, when arranged to receive, measure, and deliver the grain, substantially as described.

2. The combination of the measuring-buckets *c*, pins *i*, lever *h*, and scale-beam *g*, substantially as specified.

3. In combination with the revolving meter D the hinged board or flap *e*, arranged to operate as set forth.

4. The trough for the reception of the grain from the meter, having the sliding bottom F, arranged to operate substantially as described, whereby it can be made to deliver the grain at either side of the machine, as set forth.

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Witnesses:

E. A. WEST,

O. W. BOND.