(No Model.)

C. W. BRACKETT.

GRAIN SEPARATOR FOR THRASHING MACHINES.

No. 266,424. Patented Oct. 24, 1882.

Fig. 1.

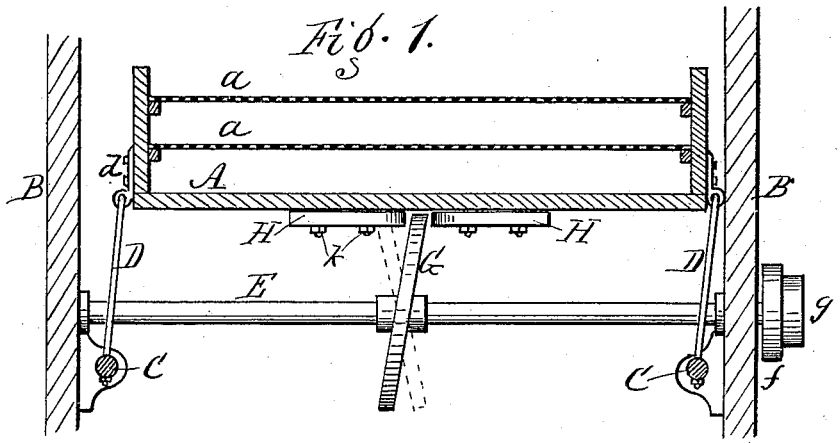


Fig. 2.

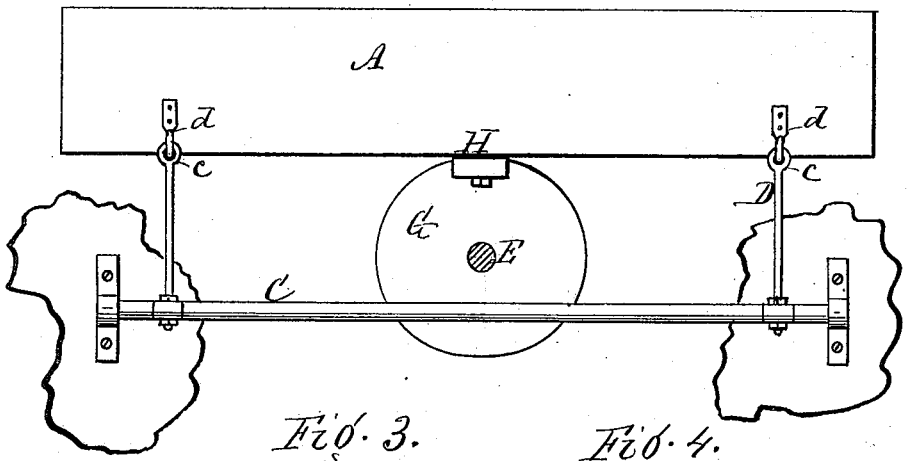


Fig. 3.

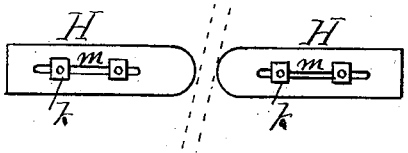
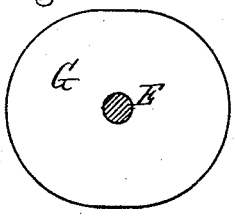


Fig. 4.



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UNITED STATES PATENT OFFICE.

CEPHAS W. BRACKETT, OF JORDAN, NEW YORK.

GRAIN-SEPARATOR FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 266,424, dated October 24, 1882.

Application filed July 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, CEPHAS W. BRACKETT, of Jordan, Onondaga county, New York, have invented a certain new and useful Improvement in Grain-Separators for Thrashing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a cross-section of the mill, showing the shoe and the means for operating the same. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a bottom view, showing the adjustable blocks on the bottom of the shoe, between which the staggering wheel or cam runs. Fig. 4 is a side elevation of the staggering wheel.

My improvement relates to means for vibrating the shoe in grain-separators for thrashing-machines; and it consists of a laterally-vibrating shoe and separate wooden blocks having slots and bolts for attaching them to the bottom of the shoe, in combination with a staggering wheel or cam and a cross-shaft upon which the staggering wheel is located, all as hereinafter described.

In the drawings, A shows the ordinary shoe of the grain-separator, located between the sides B B of the mill, and provided with the ordinary screens, *a a*.

C C are two rock-shafts, on opposite sides and extending longitudinally of the mill below the shoe.

D D are arms attached fast to the rock-shafts by means of collars or bearings on the shafts, and extending upward and connected with the sides of the shoe by means of hooks *c c*, which engage with eyes *d d*, bolted to the shoe. These arms support the shoe, and as the latter is vibrated crosswise of the machine it receives an equal motion at both ends and rocks on each side of the dead-center.

E is a cross-shaft under the shoe, having at one end outside the machine cone-pulleys *f g*, which are connected by a band with similar pulleys, but reverse, on the shaft of the fan. By this means a constant rotation is given to the cross-shaft.

My improvement is as follows:

G is a staggering wheel or cam, located fast on the cross-shaft E, and set at such an angle that in revolving it will throw the shoe first to one side and then to the other of the dead-center. The periphery of the wheel is parallel or in line with the cross-shaft, and the wheel itself is somewhat eccentric, as shown in Fig. 4, to allow for the rising and falling of the shoe in its vibrations, and also for the different positions of the wheel as it revolves relatively to center of the shoe.

H H are two flat blocks, of some length, and having rounded ends, attached to the bottom of the shoe by means of bolts or screws *k k*, which pass through slots *m m* of the blocks and enter the bottom of the shoe. The blocks can therefore be adjusted nearer together or farther apart, and can be firmly set in any position by tightening the set-screws. A space is left between the inner ends of the blocks of sufficient size to receive the edge of the staggering wheel and allow it proper play, and as the wheel revolves, as before described, it plays between the rounded ends and causes the shoe to vibrate from side to side.

By the use of the adjustable blocks, as above described, some advantages are attained over fixed fastenings, as when the wheel is once located the blocks can be brought up on either side and adjusted exactly to the rim of the wheel, so that there will be no binding and no loose play. As fast as the ends of the blocks are worn off they can be set up to the work without losing the proper adjustment. The blocks also enable the wheel to be applied at any position under the shoe. It is sometimes set centrally and sometimes on one side.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a grain-separator, the laterally-vibrating shoe A, the separate wooden blocks H H, having slots *m m* and the bolts *k k*, in combination with the staggering wheel or cam G and cross-shaft E, as herein shown and described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CEPHAS W. BRACKETT.

Witnesses:

J. H. TYLER,

CHAS. B. LESLIE.