

HENRY L. WHITMAN.

Improvement in Grain-Separators.

No. 114,500.

Patented May 2, 1871.

Fig. 1.

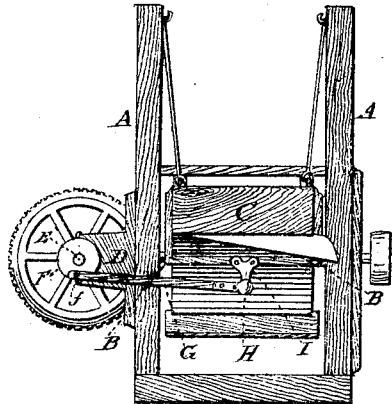


Fig. 2.

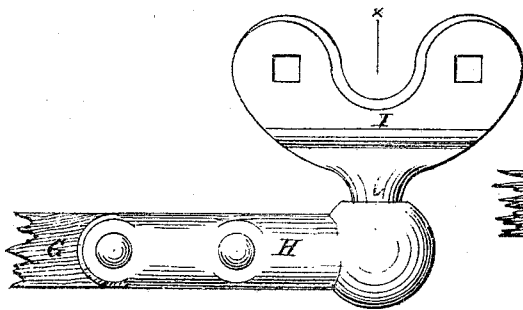


Fig. 3.

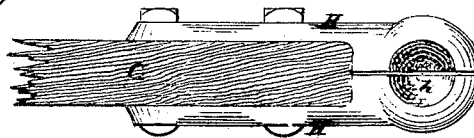
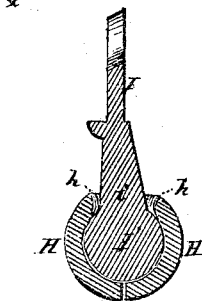


Fig. 4.



Witnesses.

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Inventor.

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Atty's.

# United States Patent Office.

HENRY L. WHITMAN, OF ST. LOUIS, MISSOURI.

Letters Patent No. 114,500, dated May 2, 1871.

## IMPROVEMENT IN GRAIN-SEPARATORS.

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

### *To all whom it may concern:*

Be it known that I, HENRY L. WHITMAN, of St. Louis, in the county of St. Louis and in the State of Missouri, have invented certain new and useful Improvements in Grain-Separators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is an elevation of the rear end of a separator with my improvement attached;

Figure 2 is an enlarged side elevation of the inner end of the pitman;

Figure 3 is a plan view of the upper side of the same, with the "ball-pin" removed; and

Figure 4 is a vertical cross-section on the line  $x x$  of fig. 2.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to communicate a laterally-vibratory motion to the sieves of a grain-separator without in any manner interfering with a free longitudinal movement of the same; and

It consists in the peculiar construction of the inner end of the pitman or connection, substantially as is hereinafter shown.

In the annexed drawing—

A represents the frame of a separator, having suspended from and within the same, in the usual manner, a shoe, B, upon which rests a series of sieves, C, all of ordinary construction.

Resting within suitable bearings, D, secured upon the side of the frame, is a shaft, E, connected at its forward end with the operating mechanism, and provided at its rear end with a circular metal disk, F, containing near one edge a crank-pin,  $f$ , placed in a line with said shaft.

Pivoted to or upon the pin  $f$  is one end of a pitman or connection, G, the opposite end of which is shod

with metal, constructed preferably in two parts, H, bolted upon opposite sides of said pitman, and provided with a spherical cavity,  $h$ , open at its upper side.

A lug, I, having upon its outer end a bearing, I', that corresponds in shape with but has a slightly smaller size than the cavity  $h$ , is secured to and projects downward from the shoe B at its transverse center, and in a line with the crank-pin  $f$ , and furnishes a pivotal bearing for the inner end of the pitman, which is attached thereto by spreading the sections H until they may be passed over said bearing, after which they may be closed together so as to cause said bearing to be embraced within the spherical cavity  $h$ , with its neck  $i$  passing outward through the opening in the latter.

As thus connected the usual vibratory motion may be given to the shoe and its sieves without interfering with their free longitudinal or vertical movement, or causing undue strain upon or wear of the bearing, by which means the efficiency and durability of the machine are largely increased without a corresponding increase of cost.

It may prove advantageous to provide the outer end of the pitman with a spherical socket and construct the crank-pin  $f$  with a corresponding form, so as to relieve said parts of any possible strain and insure greater freedom of motion to the sieves.

Having thus fully set forth the nature and merits of my invention,

What I claim as new is—

In combination with the pitman G and shoe B or sieves C, the ball-and-socket joint connection H and I', substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of February, 1871.

HENRY L. WHITMAN.

Witnesses.

ALEXANDER LOWRY,  
HENRY PETERS.