

J. B. SUITT.
GRAIN-SEPARATOR.

No. 173,515.

Patented Feb. 15, 1876.

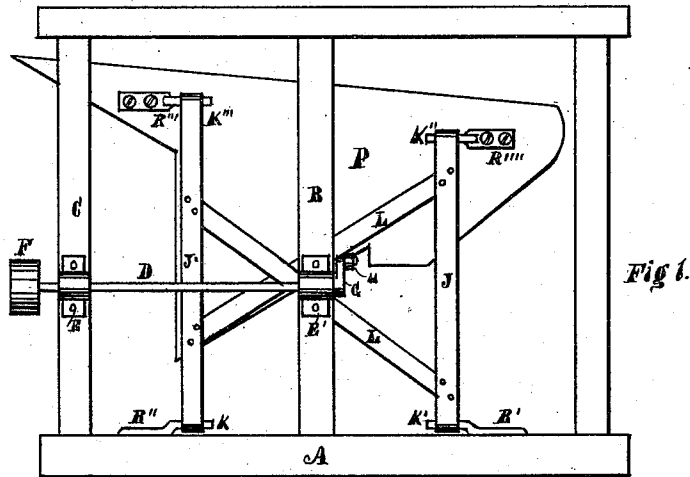


Fig 1.

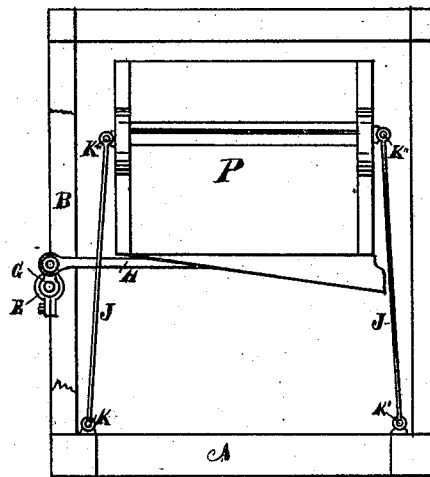


Fig 2.

Witnesses:
Cyrus Zueken
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Inventor.
James B. Sutt
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UNITED STATES PATENT OFFICE.

JAMES B. SUITT, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **173,515**, dated February 15, 1876; application filed June 14, 1875.

To all whom it may concern :

Be it known that I, JAMES B. SUITT, of Indianapolis, county of Marion, State of Indiana, have invented a new and useful Improvement in Shaking-Frames, and mode of hanging the riddle of separators, whereby the side vibration caused by the crank, pitman, and vibration of the riddle is materially lessened on the separator-frame, of which the following is a description, reference being had to the accompanying drawings.

My invention consists of the construction and arrangement of a pair of shaking-frames, which are pivoted to the sills of the separator and to the side frames of the riddle, as far above the line of the screen as possible, the object being to overcome the difficulties such as found in separators where the riddle is mounted upon shaking-frames that are pivoted to the sills at the bottom, and to the bottom of the riddle-frame, at or below the line of the crank and pitman, or where the riddle is suspended by shaking-frames attached to the separator-frames and to the riddle-frame; all of which tend to communicate a large amount of side strain and vibration to the separator frame when the riddle is vibrated, because the dead weight of the riddle and its load is in such a position in relation to the shaking-frames, pitman, and crank, as to cause a severe jerking on the separator-frame whenever the pitman turns, or passes the centers of the crank, at each end of the stroke; all of which is materially lessened by my improvement, and the separator-frame is relieved of the injurious side vibration.

Figure 1 represents a side view of the riddle shoe or frame, supported by the shaking-frames, which are pivoted to the shoe near the top, and also to the sill of the separator. Fig. 2 represents an end view of the same.

A represents the sills of the separator. B C are the uprights of the side frames. D is a driving-shaft, supported in the boxes E E',

and driven by the pulley F on one end. On the other end of the shaft D is the crank G, with the pitman H attached. The other end of the pitman H is pivoted to the under part of the shoe or riddle-frame P in such a manner as to allow the riddle to receive a vibrating motion when the shaft D is revolved in the ordinary manner.

The shaking-frames or riddle-supports are formed of the uprights J J', which are pivoted to the pieces K K' K'' K''', that are secured to the upper part of the shoe at R''' R''', and to the sill A at R' R''. The uprights J J' are secured together by the cross-bars L L, to stiffen them. There are two sets of shaking-frames, J J', one on each side of the shoe or riddle, P, as shown in Fig. 2.

By this arrangement it will be seen that the dead weight of the riddle and its load is suspended above the sills at a point below the upper pivots of the shaking-frames J J', and the shoe receives an easy swinging motion, with very little side strain on the separator-frames, yet with sufficient reaction at each end of the stroke of the crank and pitman G H to cause the grain to be moved rapidly on the riddle, and remove the foreign matter therefrom.

What I claim as new, and wish to secure by Letters Patent, is—

In combination with the shoe or shaking-riddle of a separator, a pair of frames, J J', arranged and pivoted to the sides of the shoe above the line of the screen, and also pivoted to the sill or sides of the separator-frame near the sill, to operate substantially as and for the purpose set forth and described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses.

JAMES B. SUITT.

Witnesses:

CYRUS TUCKER,
HORACE F. BROWN.