

JOHN LEE, Jr. & JOHN LEE, Sr.

Improvement in Band-Cutting Attachments for Thrashing-Machines.
No. 114,159.

Patented April 25, 1871.

Fig. 1.

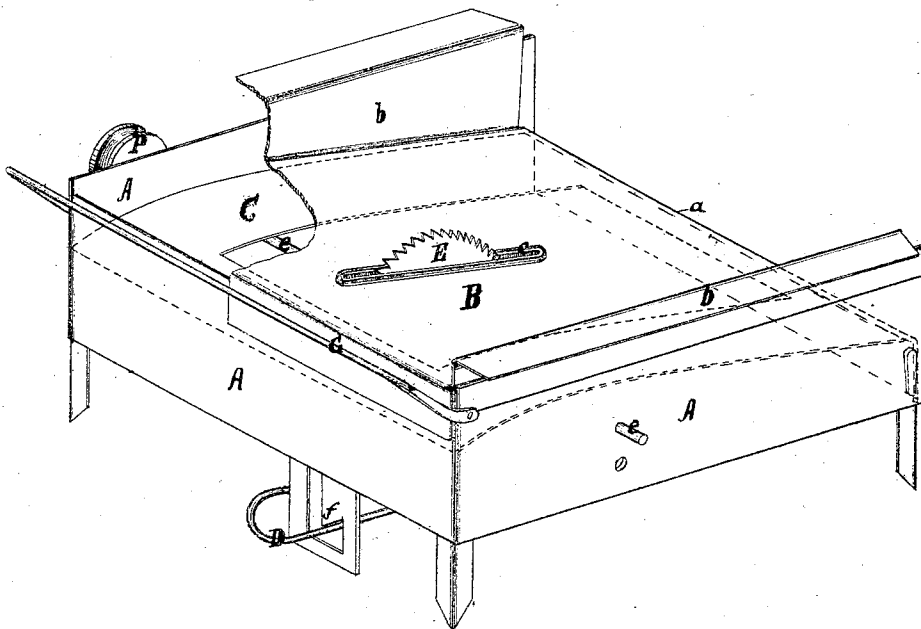
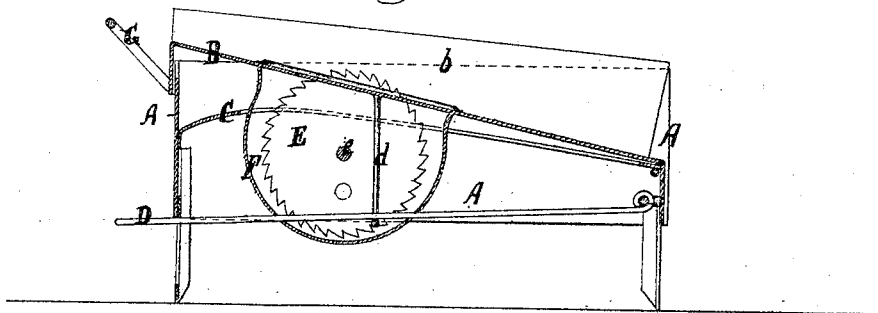


Fig. 2.



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United States Patent Office.

JOHN LEE, JR., AND JOHN LEE, SR., OF DUQUOIN, ILLINOIS.

Letters Patent No. 114,159, dated April 25, 1871.

IMPROVEMENT IN BAND-CUTTING ATTACHMENTS FOR THRASHING-MACHINES.

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

To all whom it may concern :

Be it known that we, JOHN LEE, Jr., and JOHN LEE, Sr., of Duquoin, in the county of Perry and in the State of Illinois, have invented a certain new and useful Band-Cutter; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of our invention consists in constructing a sheaf-band cutter for thrashing-machines by means of a double sickle-edged reversible circular saw or knife set on a shaft at right angles to an adjustable spring bottom or platform, on which the sheaf is cut, the saw or knife to pass through a slot made for that purpose in the spring bottom when it is depressed to cut the band; a foot-treadle with ratchet to depress and secure the spring bottom while cutting; a guard or cover on the under side of the spring bottom to shield the saw or knife when not in use; an arm or breast-guard and a skeleton frame to serve as a bearing for the spring bottom; all in a suitable frame or box, two sides of which serve as bearings for the saw-shaft, as will hereinafter more freely appear.

To enable others skilled in the art to make and use our invention, we will now proceed more fully to describe its construction and operation.

In the drawing—

Figure 1 is a perspective view of our invention, one corner of the spring bottom broken off to show the band-pulley of the saw-shaft and the skeleton frame which serves as a bearing for the spring bottom, and

Figure 2 is a longitudinal vertical section about the center of the machine.

A is the frame.

B is the sheaf-platform or adjustable spring bottom, secured at its rear end *a* to the frame A.

This platform B has side guards, *b*, to prevent the sheaf from falling off, as shown in fig. 1.

This platform may be of metal or wood, but it must be yielding or elastic, so as to spring or bend down over the skeleton frame C; which is under the platform B, when the foot-treadle D, with rod *d*, fig. 2, connecting platform B, and treadle D is pressed down from its position shown in fig. 2 to the position it holds in fig. 1.

A slot, *c*, is provided in platform B, through which the saw or knife E may project when the platform B is depressed, as in fig. 1, for the purpose of cutting a band.

A semicircular guard or band, F, (see fig. 2,) is secured to the under side of the platform B and

surrounds the under edge of saw E, so that there is no possibility of being cut by the saw except at the instant that the few inches of cutting-edge are projecting above the platform B to cut the band, and then only by what little cutting-edge there is above the platform B necessary to cut a band in two pieces.

The hands need not touch the platform to depress or rest upon it, as the foot-treadle D can be used to depress the platform, and the hands, arms, or breast can rest on the rod or guard G.

The double sickle-edged reversible circular saw or knife E is fitted on its shaft *e*, which has bearings in the sides of the frame A, with a pulley, P, on one of its outer ends, through means of which the necessary motion can be communicated to the saw E.

We prefer this saw, as one side will be sharpened to a desirable extent while the other side is in use.

The saw is placed midway of the shaft *e* so that it will be immediately below the slot *c* in the spring bottom B, and when the spring bottom B is not depressed the saw will be out of sight; and when platform B is depressed only so much of the saw will project above the platform as will be necessary to cut the sheaf-band.

Our machine having been constructed as above set forth, and then properly connected with a thrashing-machine, and a band uniting the thrasher's power to the pulley P of shaft *e* put on, the saw E is set in motion; the operator having placed a sheaf of grain on the adjustable spring platform B, with the band binding the sheaf across the slot *c*, the apparatus is ready for operation.

The operator, with his hands or arms resting on the arm-guard G, places his foot on treadle D and forces it down from the position shown in fig. 2 to the position shown in fig. 1, carrying the connecting-rod *d* and the sheaf-platform B with it, and then fastening the treadle D in ratchet or catch *f*, as represented in fig. 1.

The sheaf-platform B, as it is depressed, allows the band of the sheaf to come in contact with the circular saw E, and the band is cut. The operator may then, to avoid all risk, undo the treadle D and permit the sheaf-platform to rise before he feeds the sheaf into the thrasher.

Our invention, thus constructed and thus operated, will effectually overcome the great danger attending the feeding of thrashing-machines, which, as ordinarily constructed, have the cutters exposed or unclosed on all sides during the whole operation of band-cutting.

A hand-lever may be used instead of the treadle D. Having thus fully described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

In a band-cutter, when attached to a thrashing-machine, the combination of the frame A, spring platform B with side guards *b*, saw E, bearings C, guards G and F, and levers and catch D and *f*, substantially as described and operating as set forth.

In testimony that we claim the above-described

band-cutter we have hereunto signed our names this 17th day of November, 1870.

JOHN LEE, JR.

JOHN LEE, SENIOR.

Witnesses:

J. S. McLAIN,

J. G. MELROY.