

(No Model.)

L. MILLER.

BUNDLE COMPRESSOR AND EJECTOR FOR GRAIN BINDERS.

No. 259,897.

Patented June 20, 1882.

Fig. 1.

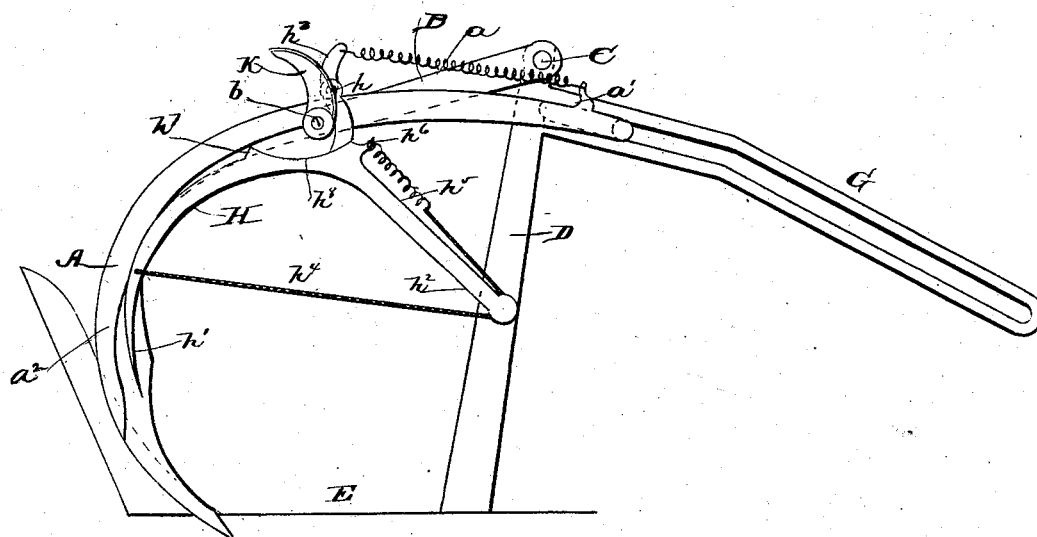
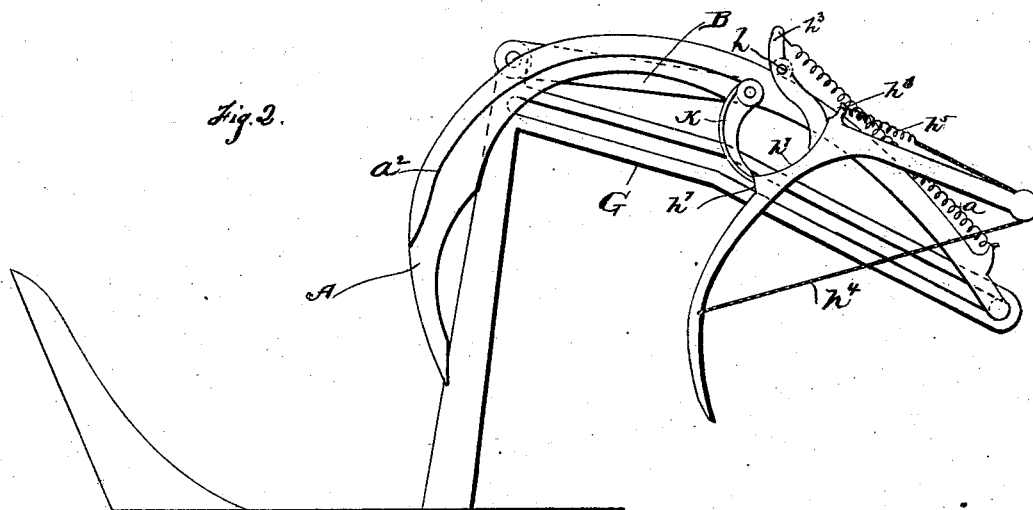


Fig. 2.



Attest.

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UNITED STATES PATENT OFFICE.

LEWIS MILLER, OF AKRON, OHIO.

BUNDLE COMPRESSOR AND EJECTOR FOR GRAIN-BINDERS.

SPECIFICATION forming part of Letters Patent No. 259,897, dated June 20, 1882.

Application filed December 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, LEWIS MILLER, of Akron, in the county of Summit and State of Ohio, have invented certain new and useful
5 Improvements in Bundle Compressors and Ejectors for Grain-Binders; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a
10 part of this specification, in which—

Figure 1 is a side elevation, showing the position of the parts as the binding-arm descends; Fig. 2, a similar view, showing the position of the parts at the moment the bundle
15 is ejected.

Similar letters of reference in the several figures denote the same parts.

This invention relates to an improved bundle compressor and ejector for harvester-binders, arranged and adapted to operate substantially as I will now proceed to describe.

Referring to the drawings, A represents a binding-arm; B, a crank having a wrist, *b*, upon which the binding-arm is mounted so
25 as to turn freely; C, a rotating shaft to which the crank is secured; D, a bracket or frame having a horizontal arm which overhangs the binding-table E and supports the shaft C; and G is a slotted guide adapted to guide
30 and control the heel of the binding-arm. All these parts are arranged in the proper relation to each other, and are adapted to operate in the usual manner.

Mounted at *h* upon the binding-arm, near
35 the point where said arm is hung upon the crank-wrist and so as to turn easily, is a compressing-arm, H, the same having a point, *h'*, heel *h²*, and a short arm, *h³*, by which it is connected to the binding-arm. A flexible compressing cord or wire, *h⁴*, extends from near the extremity of the point *h'* through an eye or over a pulley at the end of the heel *h²*, and is attached to a spiral spring, *h⁵*, connected to a hook, *h⁶*, as shown. A spiral spring, *a*, is connected at one end to the short arm *h³* of the
45 compressor, and at the other end to a hook, *a'*, upon the binding-arm, near the end of its heel, as shown. The crank-wrist *b* projects some distance through the binding-arm and upon

its end is firmly secured a short curved arm or
50 cam, K.

When the point of the binding-arm is elevated and while it is descending to separate a bundle of grain the cam K stands up as shown in Fig. 1, and the tension of the spring *a*
55 causes the point of the compressor-arm to lie close against the binding-arm, preferably up against a flange, *a²*, formed on the binding-arm. As the binding-arm descends the flexible cord *h⁴* of the compressor comes down
60 upon the gathered bundle, and as the binding-arm passes toward the front edge of the table the cam K strikes a shoulder, *h⁷*, on the compressor-arm, and, overcoming the tension of the spring *a*, forces the point of the compressor
65 away from the binding-arm, and thereby causes the compressor to advance in front of the binding-arm, increases the pressure of the flexible compressing-cord *h⁴* upon the bundle, and finally sweeps the bundle from the table.
70 When the binding-arm again begins to rise, the cam becomes disengaged from the shoulder *h⁷* of the compressor-arm, and a curved portion, *h⁸*, on the compressor, comes gradually in contact with its curved back until the
75 compressor is brought back to its first position, as shown in Fig. 1.

I do not desire to be limited to the precise embodiment of my invention here shown, as other embodiments containing the essential
80 features of it can be devised by any skillful mechanic.

What I claim as new is—

1. The combination, substantially as described, of a rotating crank, a binding-arm
85 mounted upon the wrist of said crank, means for controlling the movement of the binding-arm, a compressor supported wholly by the binding-arm and moving therewith, and an arm secured rigidly to the crank-wrist and
90 adapted to strike the compressor and positively move it in advance of the binding-arm to eject the bundle.

2. The combination of the binding-arm, the compressor mounted upon and moving with
95 the binding-arm and having the shoulder, the spring connected at one end to the binding-arm and at the other to the compressor, and

the curved arm or cam on the crank-wrist, operating in connection with the shoulder on the compressor, substantially as described.

3. The combination, with the crank, of the
5 binding-arm mounted thereon, the compressing-arm supported by the binding-arm and having the shoulder h^7 and curved portion h^8 , the spring connecting the binding-arm with

the compressing-arm, and the curved arm secured rigidly to the crank and operating in connection with the shoulder h^7 and the curved portion h^8 of the compressing-arm, as set forth. 10

LEWIS MILLER.

Witnesses:

N. N. LEONER,
L. H. HAMSCOM.