

L. KING.

Binders' Attachments for Harvesters.

No. 146,914.

Patented Jan. 27, 1874.

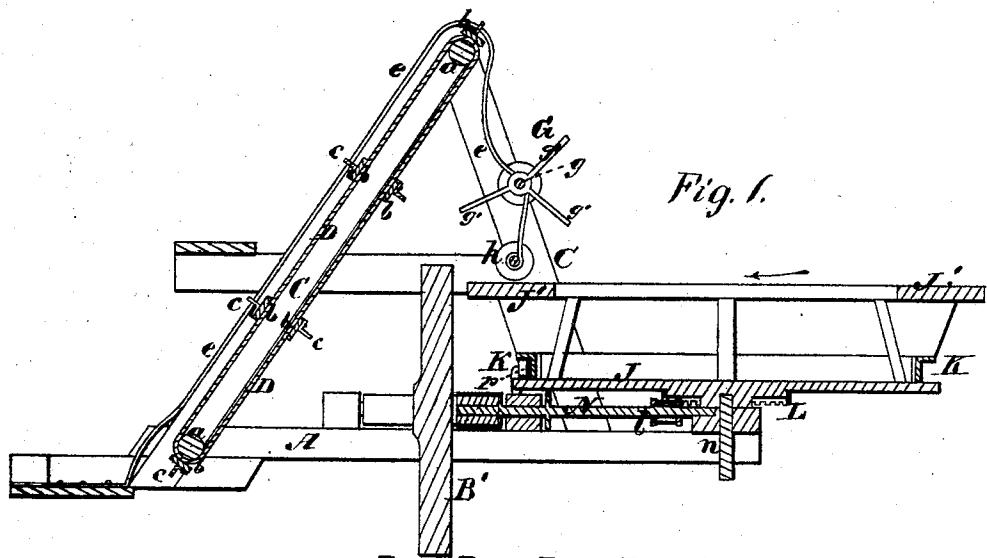


Fig. 1.

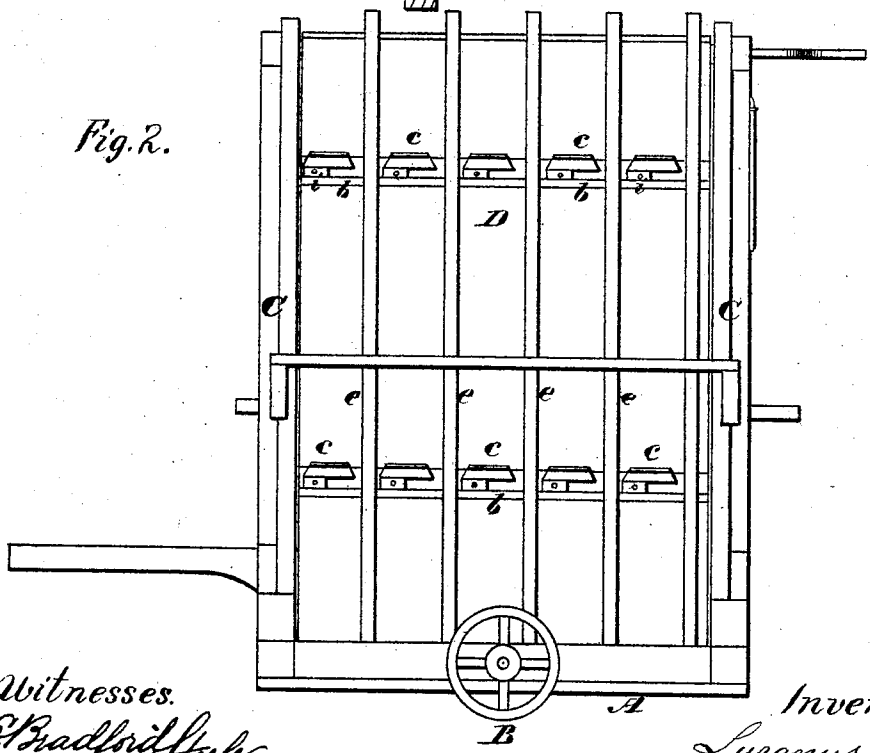


Fig. 2.

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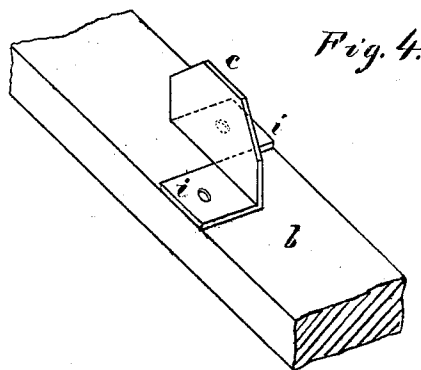
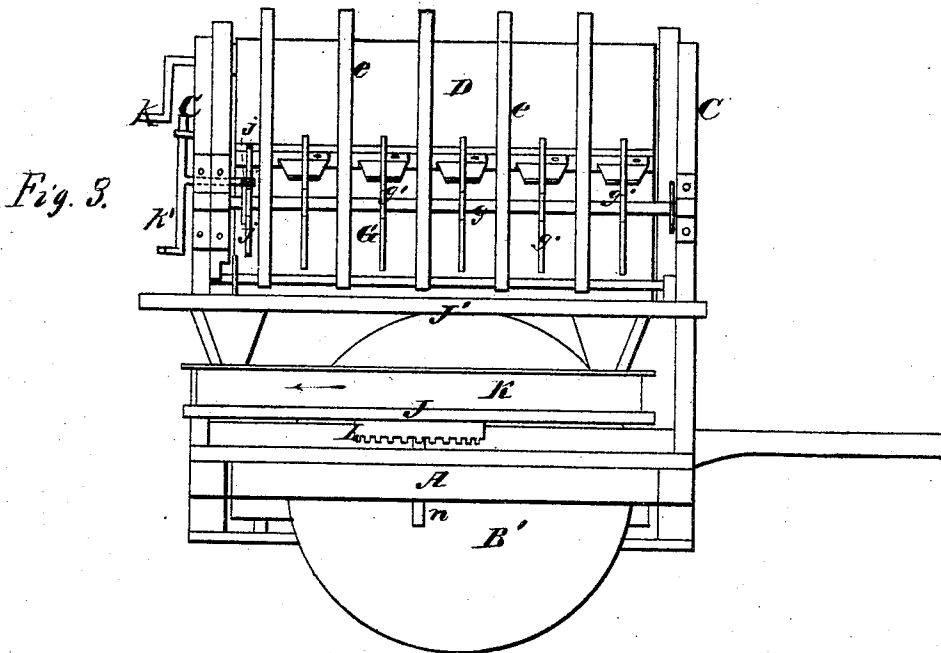
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UNITED STATES PATENT OFFICE.

LURANUS KING, OF POLO, ILLINOIS.

IMPROVEMENT IN BINDERS' ATTACHMENTS FOR HARVESTERS.

Specification forming part of Letters Patent No. **146,914**, dated January 27, 1874; application filed October 18, 1873.

To all whom it may concern:

Be it known that I, LURANUS KING, of Polo, in the county of Ogle and State of Illinois, have invented a new and valuable Improvement in Binding Attachments for Reapers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a sectional view of my binding attachment for reapers. Fig. 2 is a front view of the elevator-frame. Fig. 3 is a rear view of a harvester with my binder-frame attached. Fig. 4 is a detail of the elevator.

This invention has relation to binding attachments for reaping-machines, wherein the grain is elevated from a platform in rear of the cutting apparatus, and deposited in a convenient place for the binders to take it and apply the bands around it. The nature of my invention and improvements consists in constructing the binder's platform with a raised annular grain-receiving table, below which is an annular flanged guard, which receives holding-down rollers, and prevents the escape of loose grain from the platform while the machine is in operation.

The following description will enable others skilled in the art to understand my improvements.

In the annexed drawings, A represents the horizontal or bed frame of the binding attachment, which will be supported upon wheels B B', and connected to a platform in rear of the cutting apparatus, in any suitable manner. On this platform an endless carrying-belt or its equivalent will be applied, for delivering the cut grain to the elevators as fast as it is cut. C represents a double inclined frame, which terminates in an acute angle at its upper end, and which is strongly erected on the bed-frame A. To the inner or grain side of this frame an inclined endless belt, D, is applied on two horizontal rollers, *a a*, to which rotation may be communicated in any convenient manner. This belt has slats *b b* secured to it, at suitable intervals apart, and in lines parallel to each other, to which slats elevating-fingers

c are applied, and arranged between grain-rests *e*. Each finger *c* is a piece of sheet metal, with its ends beveled, and with flanges formed on the end, which is secured to a slat, *b*. These flanges *i i* are formed on the finger *c* by simply slitting its broadest end, and spreading the parts in opposite directions, as shown in the drawings. Fingers thus made are simple, cheap, and effective, and may be readily stamped out of spring sheet metal.

It will be observed that the flanges *i i* on the fingers are perforated to receive through them the nails by which they are secured to their slats.

The grain-rests are secured to the bed-frame A, and extend up over and parallel to the belt D, and at the upper end of this belt they are curved over it, and then carried downward and over the shaft *g* of a revolving rack, G, and secured to a horizontal rod, *h*. Between the shaft *g* and the discharging-points of the grain-rests they are concave, so as to form, with the radial arms *g'* of the rack G, a receptacle for the gavels. The rack G consists of three rows of arms, *g'*, arranged around the shaft *g* at regular distances apart, so as to form three gavel-receptacles. At one end of the shaft *g* are three stop-arms, *j j j*, corresponding to said three rows of fingers, which arms engage, one at a time, with a catch, *k*, applied to a spring-rod, *k'*, and when so engaged the rack is prevented from turning. Below the rack is a circular horizontal platform, J, supported upon which is an annular table or grain board, J', on which the gavels fall from the rack, and on which they are bound by men standing on the platform J. Below the table J', and secured to the platform, is a flanged guard, *k*. The platform is centrally supported upon the inner end of the bed-frame A, and kept in place thereon, but allowed to turn by means of a vertical shaft, *n*. L is a crown-wheel, which is secured concentrically to the bottom of the platform J, and which engages with a pinion, *l*, and shaft N, that receives rotation from the axle of the transporting-wheel B', through the medium of two pulleys and a belt or their equivalents. By these means the platform receives rotation in the direction of the arrow in Fig. 1; and this motion should be so timed with respect to the motion of the endless belt D that

the binders on the platform will be successively brought around to the rack G at proper times to discharge the gavels therefrom and bind the same.

As each binder is brought around to the rack G, he presses back the catch *k*, and allows the rack to discharge a gavel on the table J', and fall into position again for receiving another gavel. The guard K receives beneath its flange two anti-friction rollers, *p p*, which bear on the platform J, and keep it down in place. The rollers, being thus arranged beneath the flange on the guard K, are protected from flying grain, and will not, therefore, become clogged. At the same time the flange prevents any undue weight on the opposite side from forcing the platform downward out of position on the in-

side, as it will bear against the rollers on their upper surfaces.

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

The annular guard K, having a continuous flange extending outward from its upper edge, in combination with the revolving binders' platform J and the balancing-rollers *r*, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

LURANUS KING.

Witnesses:

GEORGE E. UPHAM,
D. D. KANE.