

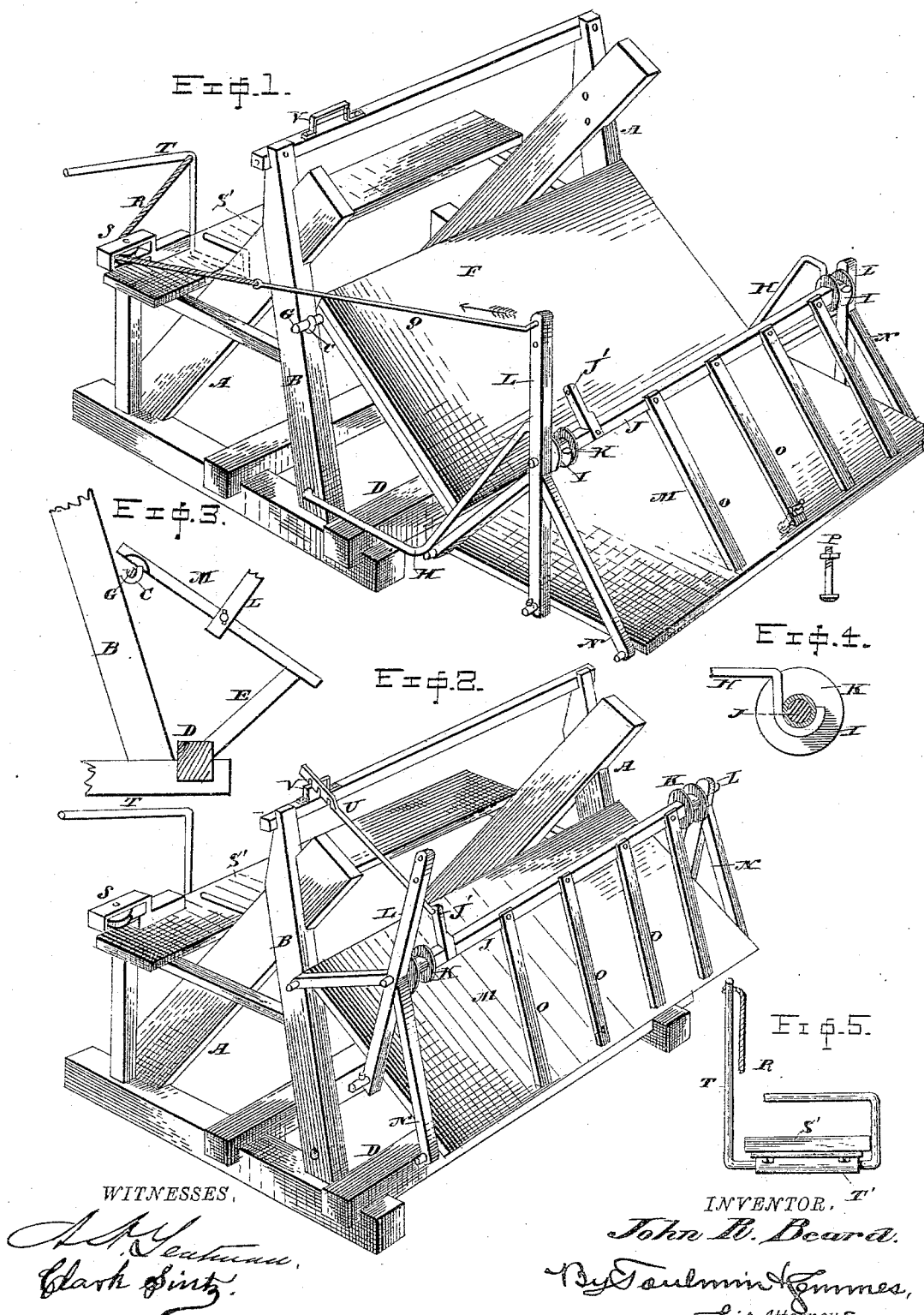
(No Model.)

J. R. BEARD.

HARVESTER.

No. 381,606.

Patented Apr. 24, 1888.



UNITED STATES PATENT OFFICE.

JOHN R. BEARD, OF SPRINGFIELD, OHIO.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 381,606, dated April 24, 1888.

Application filed April 18, 1887. Serial No. 235,152. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. BEARD, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in bundle-carriers for grain-binder harvesters; and the improvements consist, essentially, of a bundle-carrier and devices which detachably secure it to the binder-frame in such relation to the discharge-platform as to receive the bound grain as it leaves said platform, in detachably securing the platform to the binder proper, and in so arranging the said carrier that it may occupy the position, substantially at least, of the removed platform, and then perform the function of receiving unbound grain, as clover, green oats, flax, &c., the binding mechanism proper being also removed when this clover attachment is applied.

The improvements further consist of detachable supports connected with the binder-frame and of pivotally mounting the bundle-carrier in said supports and connecting the carrier with a foot or hand lever carried by the binder-frame, whereby the driver may actuate by foot or hand the carrier to drop the accumulated bundles of grain.

The improvements still further consist in constructing the bundle-carrier of a platform and of a shaft having a series of confining-arms, with means to secure the arms when the attachment is used as a bundle-carrier, and to lock and unlock them when it is used as a clover, &c., receiver, the said platform acting in the one case as a support for the bundles and as the discharging-platform proper in the other case.

In the accompanying drawings, forming a part of this specification, and on which like reference-letters indicate corresponding parts, Figure 1 represents the general frame-work of any approved grain-binder with my improved bundle-carrier attached thereto, the view being in perspective; Fig. 2, a like view showing the discharging-platform of the binder

removed and my carrier applied in the position for acting as a clover-receiver; Fig. 3, a detail sectional view illustrating the means for securing the carrier-platform to the harvester-frame; Fig. 4, a detail sectional view showing the connection between the detachable supports and the carrier, and Fig. 5 a detail view showing one manner of mounting the hand and foot lever.

The letter A designates the general frame of a grain-binder of any of the known or approved forms, to the oblique standards B of which are secured hooks C, and from the beam D whereof extends a supporting-post, E. The discharging-platform F has trunnions G, which fit into said hooks, while the lower edge thereof rests upon the post E. By these means the platform is sustained in position, and is readily detachable for the purpose already mentioned. In the said standards B, or in any other convenient portion of the frame, are mounted detachable carrier-supports H, made, preferably, of metallic rods, resting upon the beam D and turned upward and extending to the proper height, where they are bent to form journals I. In these journals is fitted the shaft J of the carrier, suitable metallic spools K being interposed to withstand wear, as the shaft is by preference made of wood. These spools K consist merely of the short tubular portions shown in section in Fig. 4 and of the disks or flanges at the ends thereof. The shafts J are fitted into the spools K, as clearly seen in Fig. 4. The spools fit into the upwardly-turned ends of the supports H when the machine is organized as seen in Fig. 1. The ends of the said shaft constitute pintles which enter and turn in holes in the posts L of the carrier. To the lower ends of these posts is secured the carrier-platform M, made of any suitable material. Braces N further secure the said platform M to the posts L and give rigidity to the structure. The shaft J has secured to it a number of confining-strips, O, which extend down to the platform M, where one or more of them is fastened, as by a bolt and nut, P, whereby the bundles of grain coming down the discharging-platform under the influence of the usual ejector-arms and upon the carrier-platform M

are prevented from rolling off the latter, and are held thereon till a sufficient number has accumulated to warrant dropping them to the ground in a heap convenient for shocking.

5 The position of the carrier-platform relatively to the discharging-platform is such that the grain-bundles readily pass from one to the other. One of the posts L extends somewhat above the shaft J and forms a lever, to which
10 a rod, Q, is attached, the rod being also attached to a cord or chain, R, which passes over a sheave, S, and connects with a foot and hand lever, T, having a bearing in some portion of the binder-frame near the place of the driver's
15 seat—as, for instance, by a box, T', bolted to the under side of a board, S', forming a part of the frame-work, the distance between the journal portion and the foot portion of the lever being sufficient to allow the lever to tilt far
20 enough to effect its function without being obstructed by contact of the foot portion with the board S'. By these devices the lever end of the post L is drawn in the direction of the arrow and the bundles of grain dropped upon
25 the ground. The weight of the carrier causes it to swing back into normal position.

The above description refers to the bundle-carrier when used in connection or conjunction with the discharging-platform of the ordinary binder.

30 I shall now refer to my improved carrier when used separately from the discharging-platform, reference being had to Fig. 2, the rod Q and rope or chain R being removed. In
35 this figure the discharging-platform is removed and the carrier-platform mounted in its place, the hooks C and the post E serving the same purpose in this instance as in the former. The engagement of the hooks with
40 the carrier-platform is shown in Fig. 3, in which a cross-piece is shown and secured to the under side of the upper edge of the platform M and forming trunnions which fit into
45 said hooks. In this position the carrier receives the unbound grain (the flax, green oats, &c., as the case may be) from the usual elevator-aprons, and when a sufficient quantity has accumulated it is readily dropped in a
50 heap upon the ground.

55 It will be noticed that a short arm, J', extends from the shaft J, to which a locking-bar, U, is connected, and which is provided with a series of notches that respectively engage with a plate, V, whereby the shaft and its strips
60 are held and the grain confined till the driver wishes to drop it. Thus it will be observed that I provide in one structure a bundle-carrier and a loose or unbound grain receiver, thereby saving the expense and inconvenience
65 of two separate and distinct devices for these two purposes.

Of course the means shown for tilting the carrier and for locking the shaft J and its confining arms or strips may be varied without
70 departing from my invention. When the carrier is in the position shown in Fig. 2, the

supports H are preferably, though not necessarily, removed from the machine.

Having thus fully described my invention, what I claim as new, and desire to secure by
75 Letters Patent, is—

1. In a harvesting-machine of the character described, the combination, with the inclined discharge-platform secured to the frame of the said machine, and bars or beams forming
80 carrier-supports secured to said frame and extending beyond the outer edge of the said platform, of a bundle-carrier detachably mounted in the outer ends of the said supports, and consisting, essentially, of a horizontal
85 platform, vertical posts secured to the center of the front and rear ends of the carrier-platform, a shaft mounted in said posts, and arms extending diagonally from the said shaft to the platform, and devices to tip the carrier to
90 discharge the bundles therefrom.

2. In a harvesting-machine of the character described, the combination, with the inclined binder-deck thereof removably mounted upon the frame of the machine, and rods or beams
95 forming carrier-supports also secured to said frame and extending beyond the outer edge of the said platform, a foot and hand lever mounted upon the machine, and a rope or cord connected with the lever, of a carrier detach-
100 ably mounted in said supports, consisting of a horizontal platform, vertical posts secured about the center of the front and rear ends of the carrier-platform, a shaft mounted in the said posts, and confining-arms extending diagonally from the said shaft to the platform and secured thereto, said rod being connected to the upper end of one of said posts, whereby the carrier-platform may be tilted.

3. In a harvesting-machine of the character
105 described, a convertible bundle-carrier and clover attachment consisting of the following instrumentalities: detachable arms having shaft-bearings formed at one of their ends and adapted to be secured to the harvester-frame
110 by their other ends, a platform, posts secured at about the center of the front and rear ends thereof, one of said posts forming a lever to tilt the platform, a shaft mounted in the said posts and adapted to fit the bearings of the said
115 arms, a series of confining-arms extending diagonally from the shaft to the platform, a rocking arm extending from said shaft, and a rod secured to said arm to rock the shaft and move the confining-arms from the platform, the said
120 carrier-platform being substantially like the discharge-platform of the machine, and having trunnions, whereby the attachment is adapted to fit the bearings of the platform or to be suspended at the lower end of the same when
125 in position, substantially as shown and described.

4. A convertible bundle-carrier and clover attachment consisting of a platform, posts, and braces connected to each other and to each
130 end of said platform and extending above it, and the posts above the braces, and forming

a lever, a shaft mounted in said posts, confining-arms secured to the shaft and extending to the platform, a locking-arm secured to said shaft to lock the confining-arms in a set position and to move them from the platform, metallic spools on said shaft forming journals, and detachable supports constructed at the one end to form bearings for said spools and

at the other to connect with the harvesting-machine.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN R. BEARD.

Witnesses:

WILBER COLVIN,
A. A. YEATMAN.