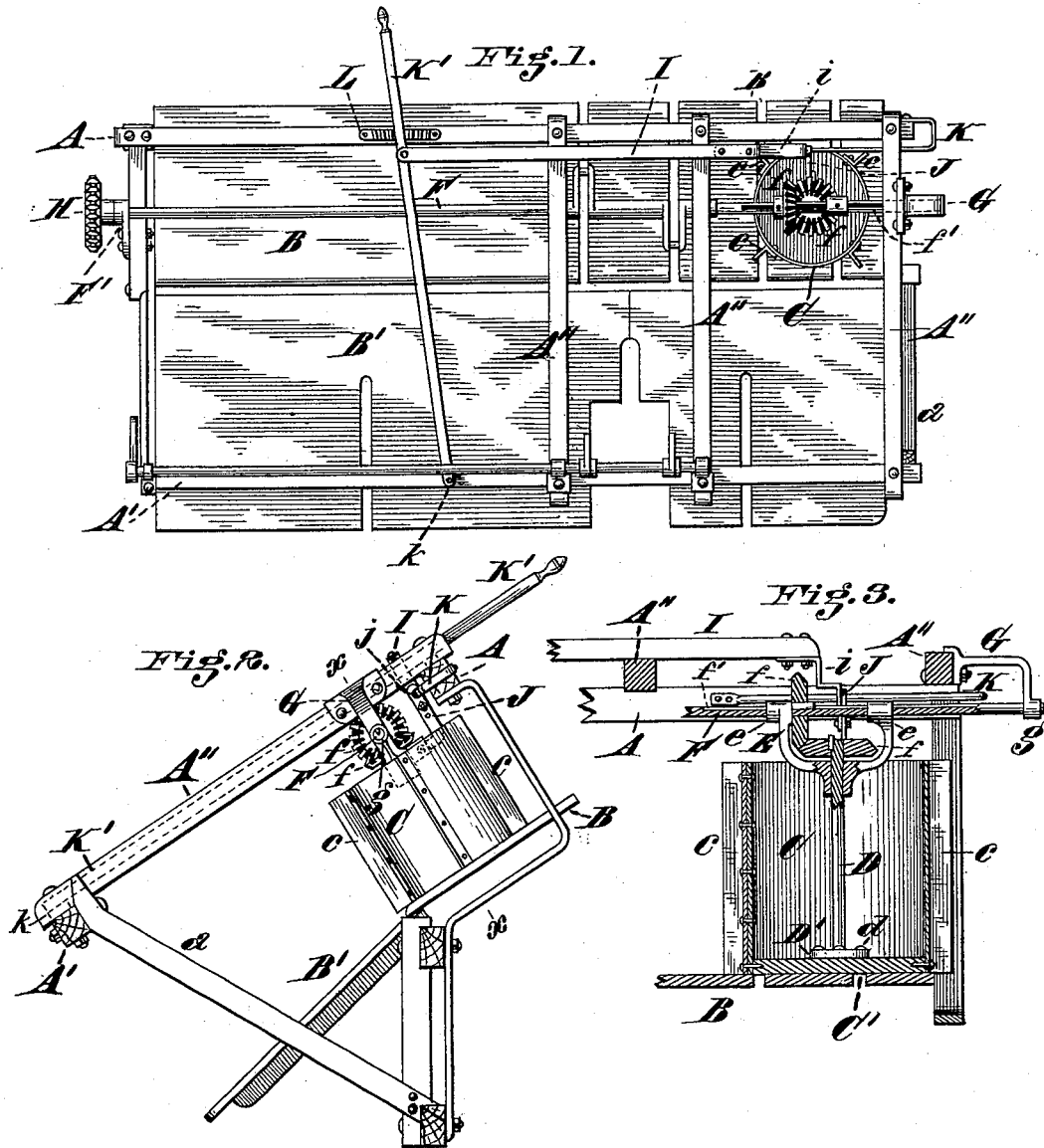


(No Model.)

R. BROWN.
GRAIN BINDER.

No. 266,426.

Patented Oct. 24, 1882.



Attest

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UNITED STATES PATENT OFFICE.

ROBERT BROWN, OF SPRINGFIELD, OHIO.

GRAIN-BINDER.

SPECIFICATION forming part of Letters Patent No. 266,426, dated October 24, 1882.

Application filed July 25, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT BROWN, a citizen of the United States, and a resident of Springfield, in the county of Clarke and State of Ohio, have invented certain new and useful Improvements in Grain-Binders, of which the following is a specification.

My invention relates to an improvement in devices for advancing or pushing the butts of grain to present them in an even position to the knot-tying mechanism for binding.

The invention consists essentially in the combination of a rotating cylinder or drum having wings for evening the butts of the grain with a horizontal driving-shaft, means for adjusting the cylinder or drum longitudinally along the driving-shaft, and mechanism for rotating the same, all of which will be fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a longitudinal plan of a grain-binder frame and platform embodying my invention. Fig. 2 is an end view of the same. Fig. 3 is a broken sectional elevation on line *x x*, Fig. 2, showing the butting mechanism.

A A' A'' represent the main timbers comprising the binder-frame; B, the slotted feeding or primary binder-platform; and B', the slotted binder-platform proper, upon which the grain is tied into bundles, and from which said bundles are discharged.

C represents a cylinder or other suitable drum, upon the periphery of which the wings or blades *c* are secured. It is preferably made of thin sheet metal, and is provided with a head, C', to which is centrally attached an upright shaft, D, by a plate or disk, D', and screws or bolts *d*. The shaft D is journaled in a journal-box, E, having forked end *e e*, in which is journaled the driving-shaft F.

f f are bevel-gears keyed to the shafts D and F, which intermesh and communicate motion from shaft F to the cylinder-shaft D to rotate the cylinder.

f' is a shallow groove made in the shaft F, which permits the adjustment of the cylinder C and its operating mechanism longitudinally on said shaft for different lengths of grain.

G is an extension pendent arm, secured at one end to the frame A'', and provided with a box, *g*, at its outer end, in which one end of the shaft F journals. The other end of the shaft F, which is a double-crank shaft, as shown,

for the accommodation and operation of the packer-fingers, journals in a bracket, F', secured to the frame, and is provided with sprocket-wheel H, to connect by a chain or other suitable means with the main driving mechanism of the machine.

I is a longitudinal bar or rod, connecting by an angular arm, *i*, and leg or foot J with the hub of the forked journal-box E.

j is a perforation made in the strip *i* and leg J, through which passes a longitudinal bar, K, secured at both ends to the frame A, and arranged in line with frame-piece A a short distance away from it to permit the longitudinal adjustment of the cylinder through the medium of the pendent strips *i* J and a hand-lever, K', pivoted at one end, *k*, to the frame A', and having pivoted near its other end the rod I.

L is a rack secured on the frame-piece A, by which to lock the hand-lever K' in its adjusted position.

I have not shown any binding mechanism in the several views of the drawings, it being unnecessary, as the device for evening the butts of the incoming grain can be adapted to operate in connection with various styles of binding mechanism without material alteration.

Having thus described my invention, what I claim is—

1. In a grain-binder, the combination of a rotating cylinder or drum having wings for evening the butts of the grain with a horizontal driving-shaft, and means for adjusting the cylinder or drum longitudinally along said driving-shaft, and mechanism for rotating the same, substantially as described.

2. In a grain-binder, the combination of a drum, C, provided on its exterior with radial wings or blades, a horizontal driving-shaft, F, a shaft, D, attached to the drum and carrying a journal-box, E, which is arranged to slide on the driving-shaft, and mechanism for rotating the drum-shaft and shifting the journal-box on the driving-shaft to adjust the drum, substantially as described.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

ROBERT BROWN. [L. S.]

Witnesses:

ALBERT H. NORRIS,
E. E. WOOD.