F. A. R., H. C. & O. L. PIEBACH.
LOADER FOR CORN BINDERS.
APPLICATION FILED MAR. 6, 1909.

985,991.

Patented Mar. 7, 1911.
2 SHEETS-SHEET 1.

Fig. 1.

Fig. 4.

Witneses.

Attorneys.
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UNITED STATES PATENT OFFICE.

FRANK A. R. FIEBACH, HENRY C. FIEBACH, AND OTTO L. FIEBACH, OF LAKEMILLS, WISCONSIN.

LOADERS FOR CORN-BINDERS.

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Application filed March 6, 1909. Serial No. 481,999.

To all whom it may concern:

Be it known that we, FRANK A. R. FIEBACH, HENRY C. FIEBACH, and OTTO L. FIEBACH, residing in Lakemills, in the county of Jefferson and State of Wisconsin, have invented new and useful Improvements in Loaders for Corn-Binders, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention has for its object to provide means for loading bundles of corn fodder from a corn binder to a wagon or the like traveling along with the corn binder.

The invention consists in an elevating conveyor attached to the main frame of a corn binder and adapted to receive the bundles of corn fodder from the binder and carry them upwardly and to one side and discharge them into a wagon traveling along with the binder, the conveyor receiving its motion from the driving mechanism of the binder and being suitably supported to freely travel over irregularities in the surface of the ground without interfering with its operation and without subjecting the parts to undue strain.

Another object of the invention is to improve upon details of construction of such a loader.

With the above and other objects in view the invention consists in the loader for corn binders herein claimed, its parts and combinations of parts and all equivalents.

Referring to the accompanying drawings in which like characters of reference indicate the same parts in the different views; Figure 1 is a rear elevation of a loader constructed in accordance with this invention applied to the frame of a corn binder; Fig. 2 is a plan view thereof, the binder frame being shown in dotted lines; Fig. 3 is a detail view of the caster support and its connections for the conveyor frame; Fig. 4 is a detail view of the lower shaft of the conveyor and the parts connected with it; and Fig. 5 is an end view thereof.

In these drawings 10 indicates the main frame of an ordinary corn binder mounted on the usual traction wheels 11 from which the power for operating the binder is transmitted through a power shaft 12 as usual.

For the purpose of securing a driving connection for the loader of this invention a short shaft 13 is journaled on the main frame and is geared to the drive shaft 12 by means of beveled gears 14. A casting 15 is supported in a position at the rear of the binder frame by means of a brace rod 16 connecting it with the rear of the main frame direct and a tie rod 17 connecting it with the vertical standard 18 of the main frame, and a shaft 19 is journaled in this casting 15 and in a bearing 20 on the main frame and is driven from the shaft 18 by a chain 21 passing around a sprocket wheel 22 of shaft 19 and around a sprocket wheel 23 of shaft 13. The shaft 19 does not fit in the bearing 20 and the casting 15 direct, but end plates 24 of a conveyor frame have trunnions 25 which fit in these bearings direct and the shaft 19 is journaled within the trunnions, the trunnions thus forming a pivotal connection for the conveyor frame.

The conveyor frame comprises side pieces 26 bolted to the end plates 24 and connected by a bottom 27 resting on inwardly extending flanges 28 of the end plates and secured to the side pieces, there being flaring side boards 29 mounted on the side pieces to form guides for preventing the material falling off of the conveyor before reaching its upper end. At the upper end of the conveyor frame a shaft 30 is journaled in adjustable bearings and is provided with a pair of flanged pulleys 31 over which a pair of conveyor chains 32 travel, said chains receiving their motion by passing around sprocket wheels 33 on shaft 19. Slats 34 connect the chains 32 at regular intervals and have hooks 35 mounted on them in such positions as to be staggered with relation to each other throughout the length of the conveyor, by locating a hook at one end of one slit and at the other end of the succeeding slit and so on.

The conveyor frame is supported in its inclined position by means of a caster roller 36 mounted in a swiveled fork 37 on a casting 38 which is connected by a pair of reach rods 39 with the main frame 10 in any suitable manner and desirably at the locations shown, so that the forwardly extending reach rod pivotally connects with the main frame at or near the tongue connection thereof and the rear reach rod pivotally connects with the main frame at the rear thereof. The casting 38 has a vertical standard 40 and an angular standard 41 secured thereto and arms 42 are adjustably connect-
ed with the standards and carry a rod 43 at
their upper ends which bears on the under
side of the conveyer frame by traveling in
slotted guides 44 thereon. A tie rod 45 con-
nects the angular standard 41 with the cast-
ing 15 to assist in holding the support for
the conveyer frame in an upright position
and a tie rod 46 connects standard 40 to the
pivotal connection of the rear reach rod 39.

10 In operation the conveyer forming an at-

tachment for the binder follows along there-
with receiving its driving motion there-
from and serving to catch the bundles of
corn fodder as they leave the binder and
carry them upwardly through the conveyer
frame to discharge them at the upper end
thereof into a wagon or the like traveling
alongside of the binder. The conveyer is
supported in its elevated position by means
of the caster roller which is free to swing
to follow the movements of the binder and
which is permitted an independent up and
down motion by reason of its pivotal con-
nections with the main frame. The up and
down motion of the caster to follow irregu-
larities in the surface of the ground causes
the conveyer frame to swing slightly on its
pivotal connection but without binding the
parts, for the connection between the sup-
porting arms 42 and the conveyer frame is a
sliding one as formed by the rod 43 riding
in the slotted guides 44. The elevation of
the conveyer may be adjusted at will to suit
the requirements, the pivotal connections
thereof being concentric with the driving
shaft so as to enable its pivotal movements
without interfering with the driving con-
nections. For convenience in connecting
and disconnecting the conveyer frame from
the remainder of the device the bearings for
the trunnions 25 are provided with hinged
caps at the lower side which may be quickly
opened and closed for this purpose.

Any desired form of chain tightener may
be used at the upper end of the conveyer,
though the screw mounted bearings shown
in the drawings are found desirable for this
purpose.

Various changes in the form, proportion,
and minor details of construction may be re-
sorted to without departing from the prin-
ciple or sacrificing the advantages of this
invention.

What we claim as new and desire to se-
cure by Letters Patent is:—

A loader for corn binders, comprising a
bearing member, a rod connecting the bear-

ing member with the main frame of the corn
binder, a journal bearing on the main frame
of the corn binder, an inclined conveyer
frame having trunnions journaled in the
bearing member and in the journal bearing
to form pivotal connections therefor, a drive
shaft journaled through the trunnions, a
driving connection between the drive shaft
and the driving mechanism of the corn
binder, sprocket wheels on the drive shaft,
conveyer chains passing through the con-
veyer frame and around the sprocket
wheels, a rod connecting the bearing mem-
ber with a standard of the main frame of the
corn binder to support the weight of the
conveyer frame, slotted guides on the under
side of the conveyer frame, a rod slide-
able therethrough, arms connected to the ends
of the rod, a support having upwardly extend-
ing members to which the arms are adjust-
ably secured, a caster roller on which the
support is mounted, a rod connecting the
support to the rear of the main frame of the
corn binder, a rod connecting the sup-
port to the side of the main frame of the
corn binder, and a rod connecting the sup-
tures, in presence of two witnesses.

In testimony whereof, we affix our signa-
tures, in presence of two witnesses.

FRANK A. R. FIEBACH.
HENRY C. FIEBACH.
OTTO L. FIEBACH.

Witnesses:
N. H. FALK,
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