

(No Model.)

J. H. WILSON & J. A. FORBES.

CORN AND CANE HARVESTER.

No. 328,910.

Patented Oct. 20, 1885.

Fig. 1.

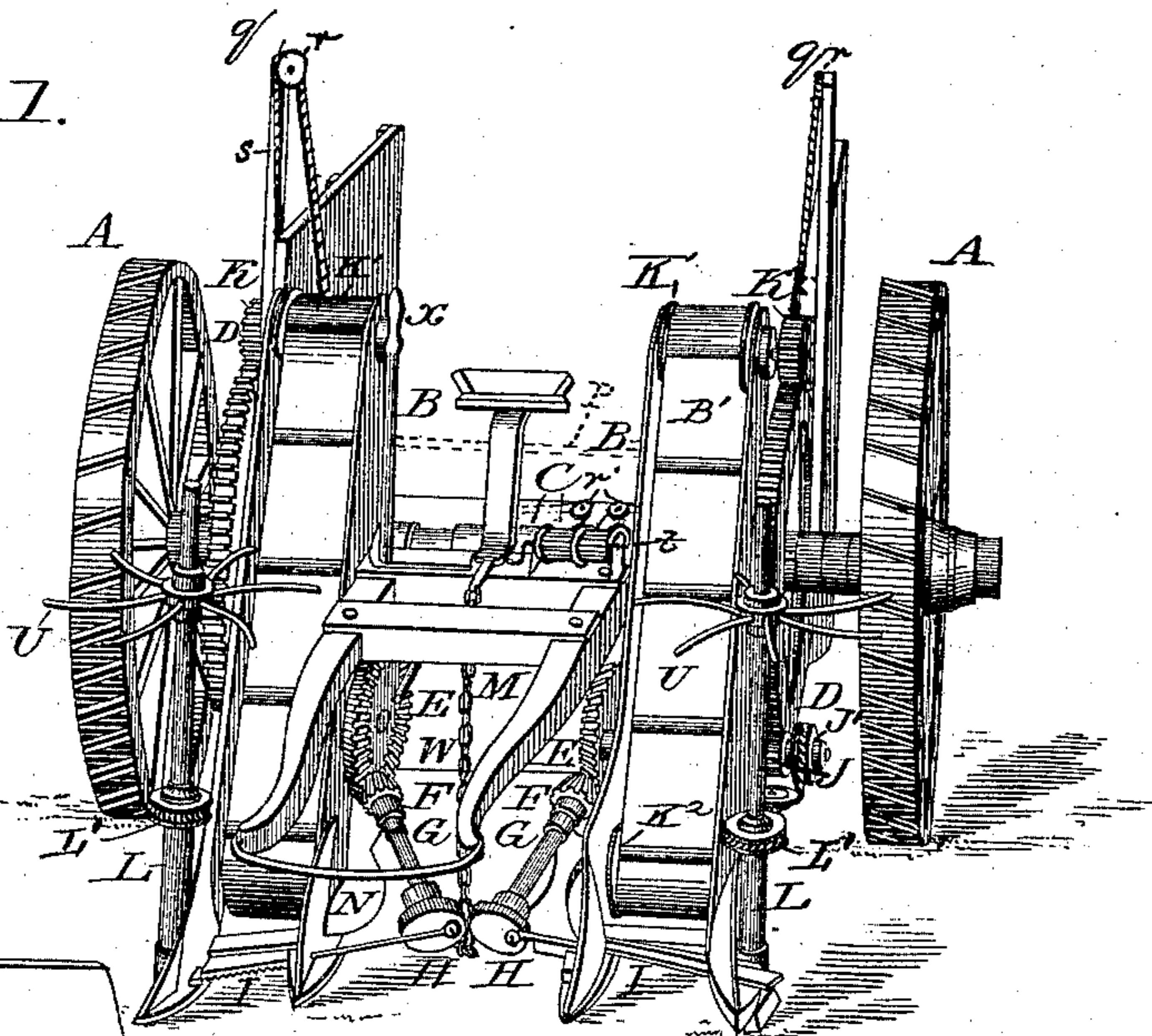


Fig. 3.

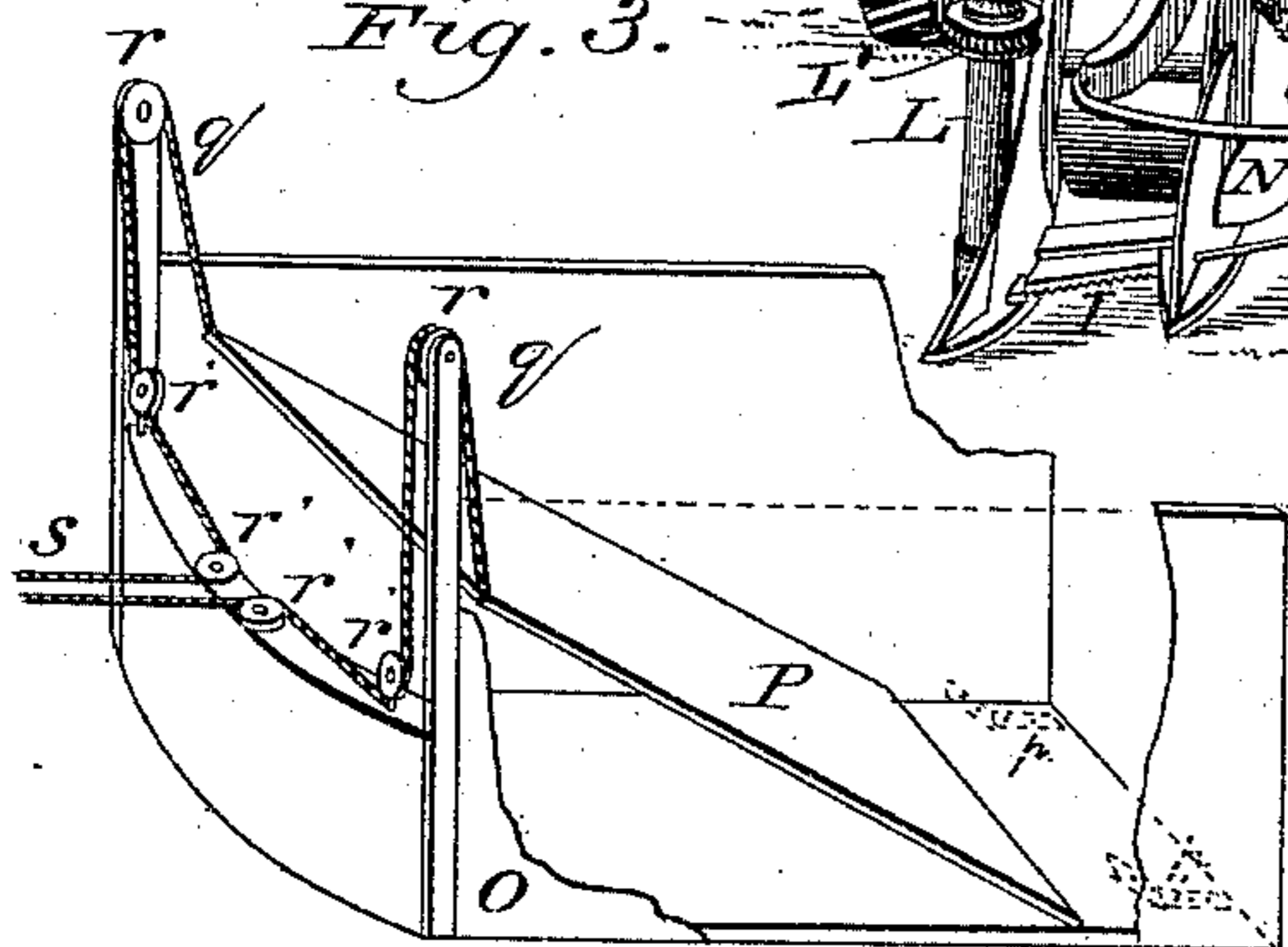


Fig. 4.

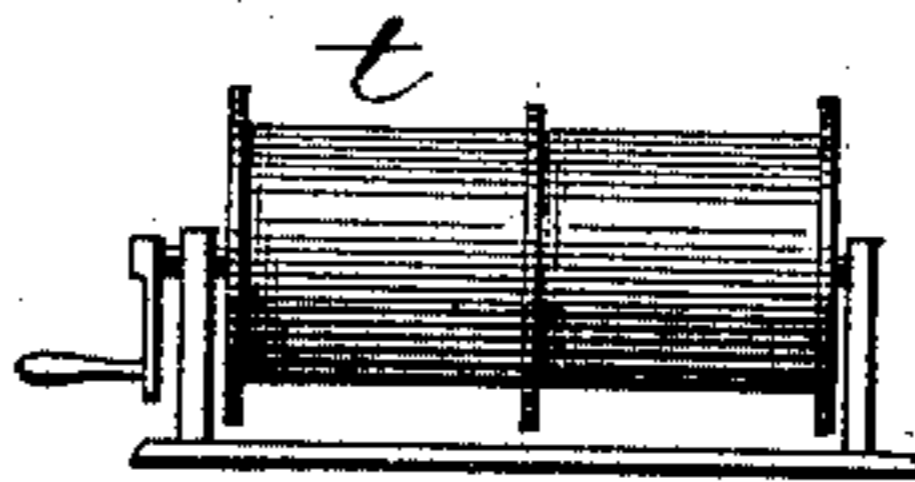
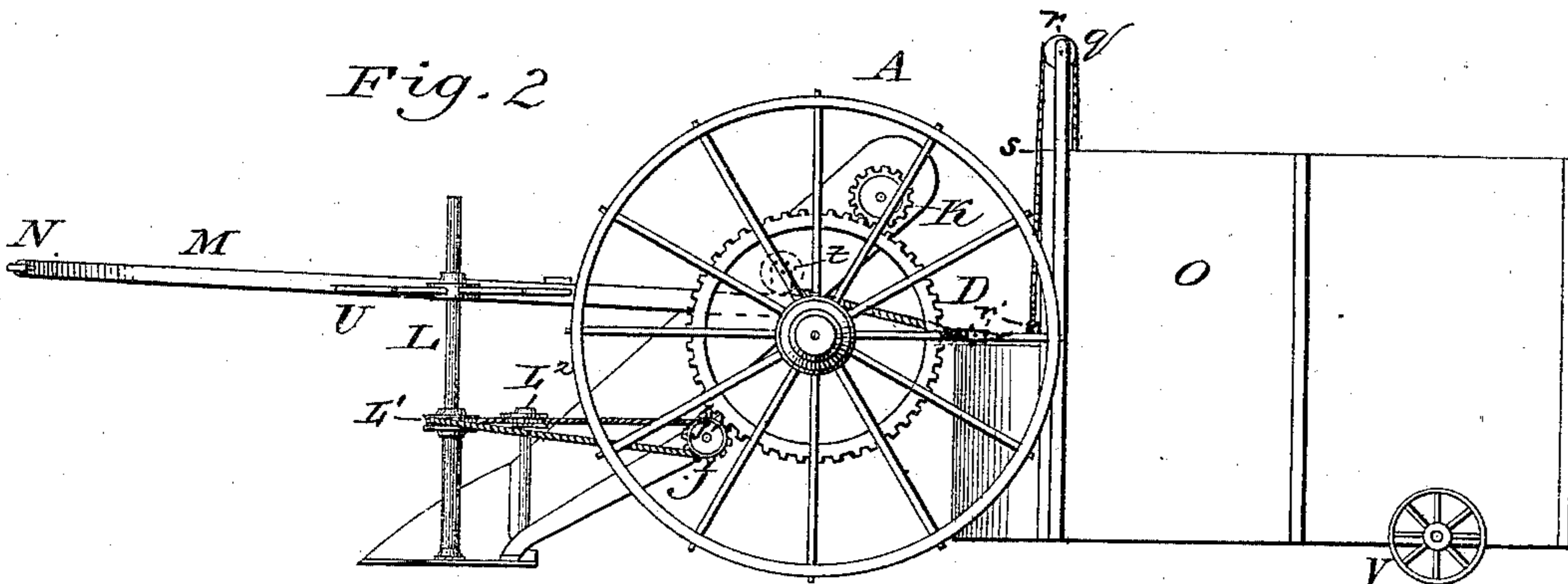


Fig. 2.



Witnesses:
Geo. P. Farrell
Saml L. Lewis

Inventor:
J. H. Wilson
J. A. Forbes
By Richard R. Kenney
Their Attorney.

UNITED STATES PATENT OFFICE.

JAMES H. WILSON AND JOHN A. FORBES, OF DOVER, DELAWARE.

CORN AND CANE HARVESTER.

SPECIFICATION forming part of Letters Patent No. 328,910, dated October 20, 1885.

Application filed February 7, 1884. Serial No. 120,095. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. WILSON and JOHN A. FORBES, of Dover, in the county of Kent and State of Delaware, have invented certain new and useful Improvements in Corn and Cane Harvesters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention relates to improvements in corn-harvesters, and is designed to produce a device for the purpose in which the mechanism used in imparting the movement from the drive-wheels to the moving parts is simplified and an improved form of dumping receptacle provided, and also the entire device is so formed as to obtain great efficiency and compactness.

In the following description, reference is had to the annexed drawings, in which Figure 1 represents a perspective view of the device; Fig. 2, a side elevation; Fig. 3, a detail perspective of the receiver and dumper, one side being broken to better illustrate the interior; and Fig. 4 a detail showing the windlass.

The description is mainly confined to the mechanism of one side, as the two sides of the machine are duplicates, and may be used separately or together, as desired—that is, the machine may be built double or single without necessary modification of form of the parts entering into the construction.

The drive-wheels A are mounted on the axle C, which carries a large gear, D.

Properly supported in the machine is an elevator-frame, B, containing an elevating-carrier, B', and having rollers K' and K² at top and bottom, respectively, for imparting motion to said carrier.

The roller K' is mounted on a shaft, which carries at one end a pinion, K, intermeshing with the large gear D, and thus receiving its motion without intermediate devices.

To the lower part of the frame B is journaled a shaft carrying near one end a pinion, J, intermeshing with the gear D, and at the same end a pulley, J'. At the other or inner end the said shaft is provided with a bevel-gear, E, which meshes with a bevel-pinion, F, on a crank-shaft, G, which latter extends to-

ward the front of the machine on a line oblique to the line of travel of said machine.

By means of a pitman, H, obliquely arranged, plain or toothed cutters I, reciprocating in the mouth of the frame B, receive their motion. The obliquity of the cutters gives a shear-cut which has a well-known advantage over a straight or right-angle cut.

To the outer side of the frame B is journaled an upright shaft, L, carrying near its upper end a reel, U, which delivers the corn to the cutters. On the said shaft is secured a pulley, L', about on a line with the pulley J', and between said pulleys is a horizontal loose pulley, L². A rope passing from the pulley J' to the pulley L' imparts motion to the reel.

The motion imparted to the elevator, reel, and cutters is thus almost direct from the drive-wheels, the intermediate mechanism being very simple and efficient.

To the rear of and with one end under the elevators is placed a box or receptacle, O, having posts *g* raised at the forward end, said posts carrying pulleys *r*.

Within the box is a movable extra bottom, P, which, if desired, may be hinged to the main bottom of the box, the hinges being shown in dotted lines at *p*.

On the depressed front of the box are pulleys *r'*, around which, as also over the pulleys *r*, pass ropes *s*, from a windlass, *t*, placed near the driver, to the end of the bottom P.

There is no danger of the cut corn falling from the box, while it may be deposited on the ground at any time by elevating the front end of the bottom P.

By means of a chain, W, connected to the frame in which the shaft or shafts are journaled, and a lever, *x*, to which said chain is connected, the front of the machine may at any time be elevated.

The thills M are provided with a front guard, M, for preventing the corn getting between the horse and the said thills.

When the double machine is used, the horses are harnessed tandem, passing between the rows of corn, and when only one cutter is used the horses are hitched one on each side thereof, allowing the row to pass between them.

We claim—

100

1. In a corn-harvester, the combination of
a large gear-wheel mounted on the axle, an
elevator-belt, a shaft operating the elevator
and carrying a pinion intermeshing with the
5 said large gear, a shaft carrying at one end a
bevel-gear and at the other end a pulley and
a pinion, the latter intermeshing with the said
large gear, a crank-shaft extending obliquely
toward the front of the machine and carrying
10 a bevel-pinion meshing with said bevel-gear,
and obliquely-arranged cutter-connections be-
tween said crank-shaft and said cutter, a ver-
tical reel-shaft carrying a pulley, and a belt
connecting the said pulley with the first-named
15 pulley, the whole operating simultaneously,
substantially as and for the purpose specified.

2. In a corn-harvester, a dumping device
consisting of a receptacle or receiving-box, an
extra movable bottom therein, posts erected
20 on one end of said box, pulleys carried on said
posts, ropes passing from one end of the said
extra bottom, and a windlass to operate said
ropes, substantially as and for the purpose
specified.

3. The corn-harvester described, consisting 25
of drive-wheels mounted on an axle, a large
gear-wheel on said axle, an elevator receiving
motion from a shaft with a pinion meshing
with said gear, an obliquely-arranged cutter 30
at the mouth of said carrier or elevator frame,
an oblique crank-shaft connected to said cut-
ter, a shaft with gearing and a pulley, the
gearing meshing with the said large gear, and
a pinion on the said crank-shaft, a vertical
reel-shaft with a pulley connected by a band 35
with the said pulley on the gear-shaft, and a
dumping receptacle consisting of a box with
an extra upwardly-moving bottom, substan-
tially as specified.

In testimony that we claim the foregoing 40
we have hereunto set our hands in the pres-
ence of two witnesses.

JAMES H. WILSON.
JOHN A. FORBES.

Witnesses:

JOHN S. JESTER,
RICHD. R. KENNEY.