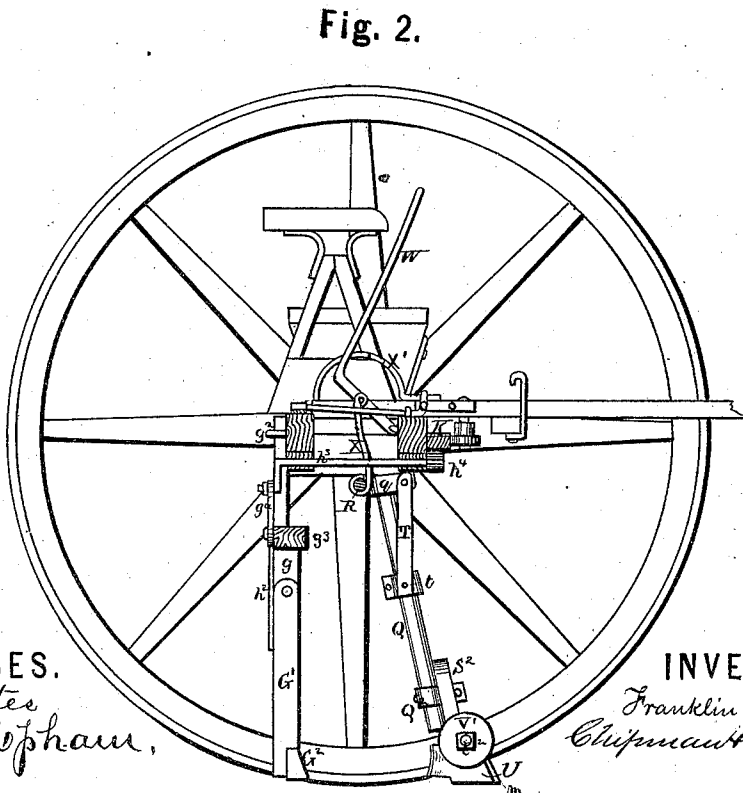
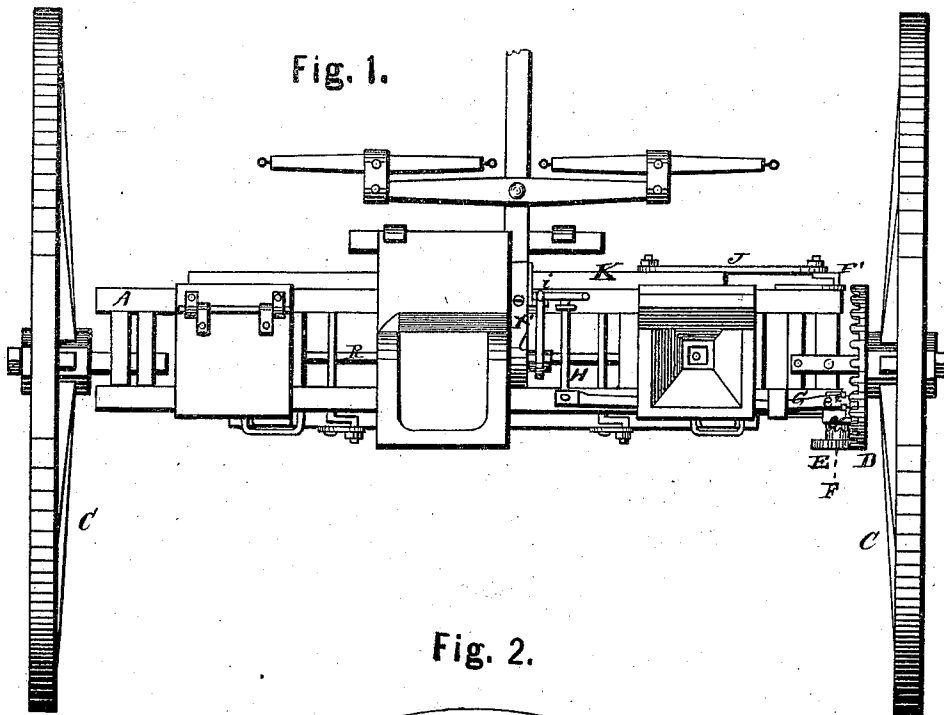


F. UNDERWOOD.

Improvement in Corn-Planters.

No. 131,482.

Patented Sep. 17, 1872.



WITNESSES.
E. A. Bates
Geo. C. Upham,

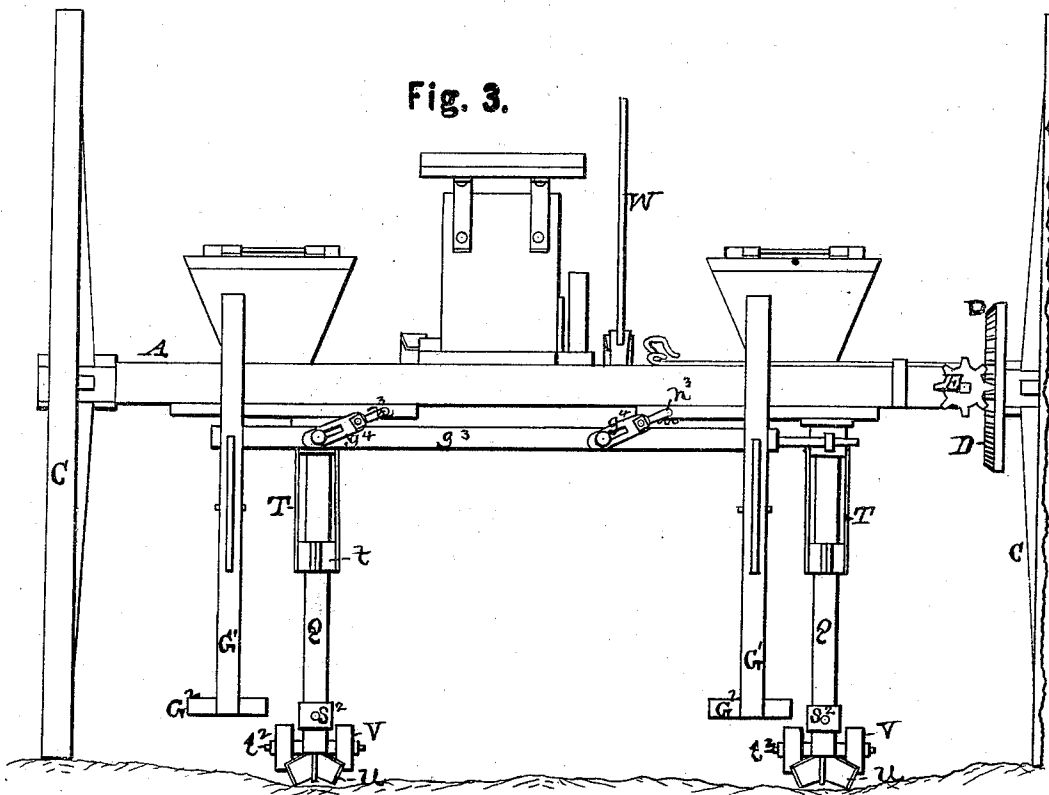
INVENTOR.
Franklin Underwood,
Clipmanton & Co.,
Atty's,

F. UNDERWOOD.

Improvement in Corn-Planters.

No. 131,482.

Patented Sep. 17, 1872.



WITNESSES.

C. A. Bates
D. D. Lane

INVENTOR.

F. Underwood,
Chipman Fosmire & Co.,
Attys.

UNITED STATES PATENT OFFICE.

FRANKLIN UNDERWOOD, OF SOUTH RUTLAND, NEW YORK.

IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. 131,482, dated September 17, 1872.

To all whom it may concern:

Be it known that I, FRANKLIN UNDERWOOD, of South Rutland, in the county of Jefferson and State of New York, have invented a new and valuable Improvement in Corn-Planters and Cultivators; 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 drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a plan view of the frame to which my invention is applied. Fig. 2 is a longitudinal section of the same. Fig. 3 is a rear view of my invention.

This invention has relation to corn-planters; and consists in the construction and novel arrangement of the furrow-plows and their attachments, and the seed-spouts, slide, coverers, and devices for operating and controlling the same, all as hereinafter described.

In the accompanying drawing, A represents the main frame of the implement, mounted upon the wheels C. To the axle of one of said wheels is attached a beveled spur-wheel, D, engaging with a bevel-pinion, E, on the end of a shaft, F. The pinion E is loose upon the end of its shaft, and communicates motion to said shaft, from the wheel D, by means of a clutch-coupling, e^1 , the sliding part of which is connected, by means of a plate, e^2 , to a lever, G, pivoted to the back part of the frame, and attached or hinged at its inner end to a bar, H, which passes across the frame and has its forward end so bent as to be held by a catch, i . The bar H is under the control of the driver, who may turn it away from the catch and then push forward or backward to couple or uncouple the clutch. The forward end of the shaft F is furnished with a crank, F', connected, by a pitman, J, to a bar, K, which is attached to the seed-slides. When the shaft F is turned vibratory motion is given to the seed-slides by means of the connecting devices above specified. Q designates the seed-spouts, which are held in place by means of an iron band, q , secured to the top of each, and having its ends bent forward is hinged thereby to an iron plate on the under

side of the frame or the bottom board of the adjacent seed-hoppers. The bands q are also bent or extended back, and are rigidly secured to either end of a bar or shaft, R. An arm, X, connects the bar R with a lever, W, which is pivoted to the frame A and held in position by means of a notched catch-bar, X'. The catch-bar is pivoted to the tongue, and is turned away from the lever by the driver's foot when he is about to use it. T represents braces, the lower ends of which are fastened to straps t near the middle of the spouts, while the upper ends are secured by hinge-bolt to the forward part of the straps or bands, q , as shown. The plows U are formed upon the lower ends of sliding loops S², which are held to the front sides of the spouts by means of straps or bands Q², which are passed around the lower ends of said spouts, and have their ends bent forward to pass through said loops. A bolt is put through said strap outside the loop, and the latter thereby held from being detached. The plows are formed each with two furrow-sides or mold-boards, with a knife, m , arranged between them and extending forward in such a manner as to cut through obstructing roots or sods. Small rollers, V', designed to serve as gages to the plows, are arranged one on either side of each plow, and held in place by a shaft, v , passing through the loop S². The loops allow said rollers to rise and fall with the uneven surface of the ground. In order to raise the plows from the ground the lever W is pulled back by the driver and the spouts swung forward. Coverers G², fastened to the lower ends of standards G¹, are designed for the purpose of scraping down the earth behind the plows and more thoroughly covering the seed. The standards G¹ are hinged to vertically sliding arms g passing through guides g^2 , and connected together by means of a bar, g^3 . Springs h^2 , attached to the arms g , press against the back part of the arms G, and are designed for the purpose of throwing the coverers forward with their accumulations of earth. The bar g^3 is connected by slotted bars g^4 to crank-shafts h^3 upon the forward ends of which are pinions h^4 , engaging with racks on the under side of the reciprocating bar K. When the bar K is operated, the scrapers are raised and lowered so as to

enable them to accumulate and cast off the earth.

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

1. The double plow U attached to the seed-spouts Q by means of the loops S², in combination with the gaging-rollers V', arranged substantially as specified.
2. The lever W, arm X, bar R, bands g, hinged spouts Q, and plows U, substantially as specified.
3. The coverers g², hinged arms g¹, sliding-

arms g, springs h², bar g³, connections g⁴, crank-shafts h³, pinions h⁴, and reciprocating slide-bar K, combined substantially as and for the purpose set forth.

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

FRANKLIN UNDERWOOD.

Witnesses:

H. A. UNDERWOOD,
FRANCIS UNDERWOOD.