

*E. P. Russell,
Harvester Dropper.*

No. 55910.

Patented June 26. 1866

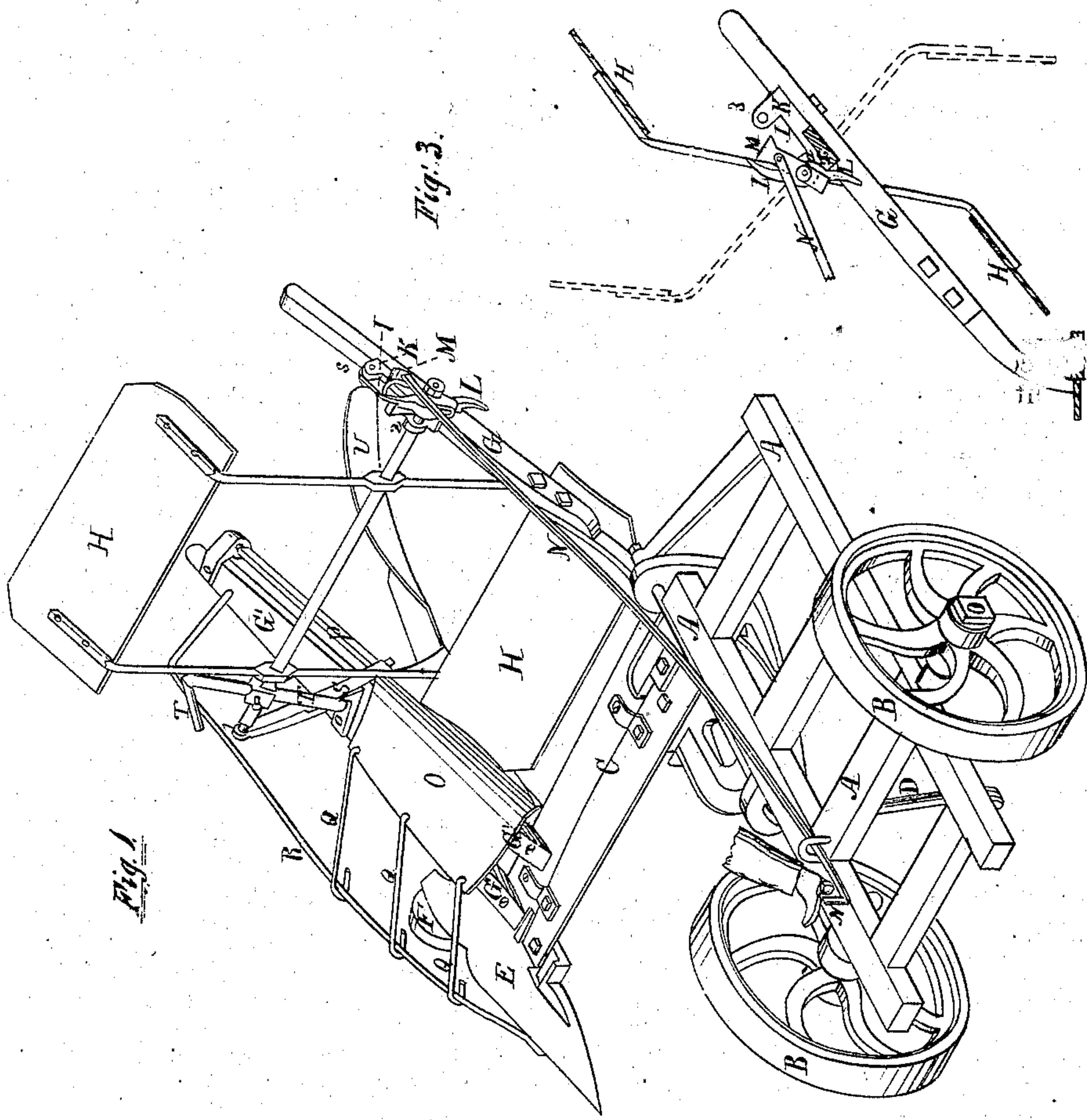


Fig. 1

Fig. 3.

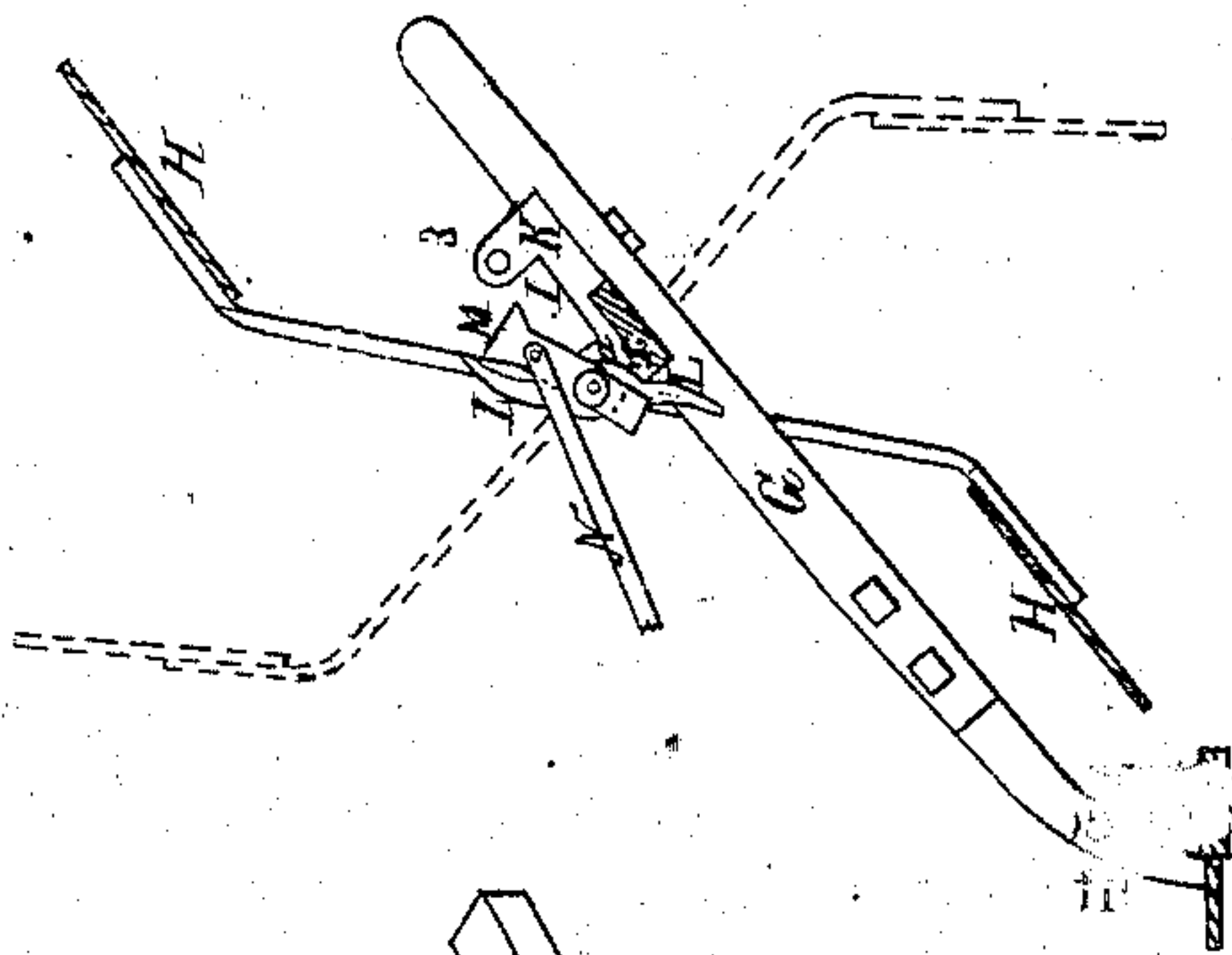
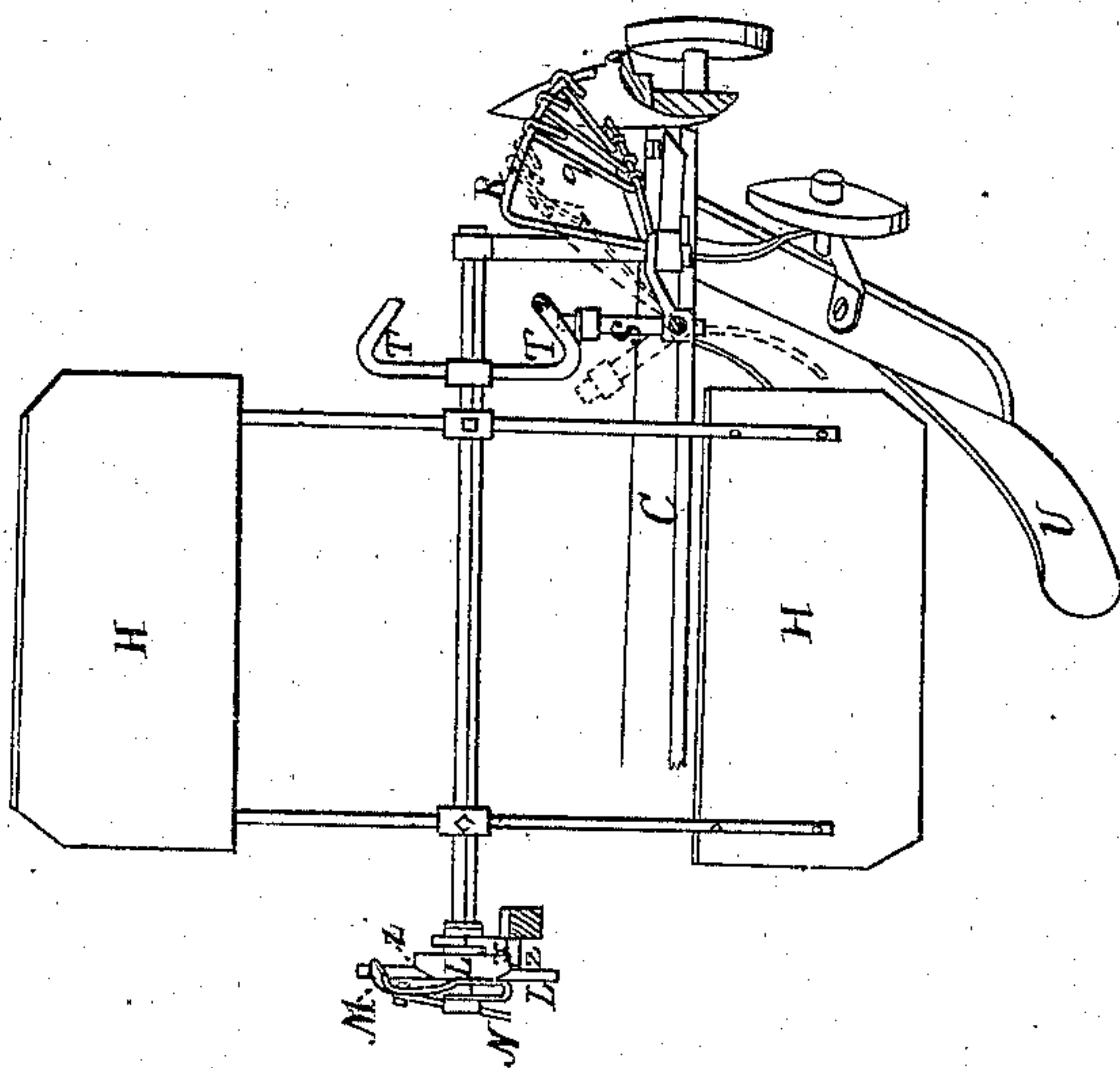


Fig. 2



*Witnesses -
A. P. Chatman
W. C. Clayton*

*E. P. Russell,
Atty. J. C. Clayton*

UNITED STATES PATENT OFFICE.

E. P. RUSSELL, OF MANLIUS, NEW YORK.

IMPROVEMENT IN REAPING - MACHINES.

Specification forming part of Letters Patent No. 55,910, dated June 16, 1866.

To all whom it may concern:

Be it known that I, E. P. RUSSELL, of Manlius, Onondaga County, in the State of New York, have invented certain new and useful Improvements in Harvester Dumper-Reels, being an improved mode of discharging the wheat from the platform in gavels or sheaves; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference thereon marked.

In the drawings, Figure 1 is a perspective view showing the machine ready for action, and before a quantity sufficient for a gavel is cut. Fig. 2 is an end view, the red lines indicating the position of the side dumper when it has discharged its portion of a gavel. Fig. 3 is a detail section of the dumper-reel, the red lines indicating its position after discharging or dumping a gavel.

My invention is intended to be used instead of that device known as a "rake" which is usually attached to a harvester, or instead of a hinged or pivoted dumping-platform; and its object is to dump or drop the wheat off from the cutter-bar, when enough has been cut to form a gavel, by the simple action of the foot of the driver of the harvester.

To enable harvester-builders to make and use my invention, I will describe its construction and operation.

In the drawings similar characters refer to like parts.

A represents the general frame-work, to which the wheels, driver's seat, &c., are attached; B, the driving-wheels. C is the cutter-bar, which is secured to and turns up upon the diagonal bracing-rods D. E is the dividing guard-finger, provided with a small wheel, F. G G' are light and strong braces attached to and extending upward and to the rear of the cutter-bar, for the purpose of supporting the revolving dumper at a point in rear of the cutter-bar.

H is the revolving dumper-reel, which consists of an axle turning in bearings fastened to braces G G', and provided with arms and broad wings, upon which the cut wheat falls. The drawings show the reel with two of these broad wings; but a larger number can be used, if preferred. The outer end of the reel-axle

turns in a stationary bearing at 1. The inner end, at 2, has its bearing in a bar, I, which is pivoted at 3 to a lug upon the stud-plate, K, so that the bar I and the inner end of the axle can rise and fall a little. *a* is a stud upon the plate K to guide the bar I as it rises and falls.

L is a double-ended trip-lever fastened to the inner end of the reel-shaft. This lever L has near each end a shoulder, *z*, which plays upon the curved surface *x* of the stud-plate K, so that as the reel is tripped this shoulder *z*, riding upon the surface *x*, raises the front end of bar I up a little, so that the inner end of the reel-shaft shall be at its highest point at the instant that the gavel is discharged. From this it results that as soon as the gavel is discharged the end falls down with such an impetus as to make the trigger device set itself for the next discharge.

M is a catch which turns loosely upon the inner end of the reel-shaft, and is loosely pivoted at the other end to the operating-lever N. The operation of catch M is shown in Figs. 1 and 2.

O is the side dumper, turning with the hinge-bar P, having its ends pivoted in journal-brackets extending from braces G'.

R is a bent rod extending from the rear of the brace G' to a point forward near the toe of the dividing-finger E.

Q are several wire links hooked in the outer edge of side dumper, and having their other ends to slide loosely upon the rod R, as indicated by red lines in Fig. 2.

S is a stud fixed at right angles to the bar P, so that the arms of the cam-levers T on the reel-shaft shall strike against the stud S, and thereby trip the side dumper, O.

U is the track-clearer, and consists of a brace and curved wing (steadied by a small wheel) extending backward from the outer end of the cutter-bar, at an angle of about forty-five degrees, toward the driver, so that when the gavel is dumped the track-clearer shall sweep it to the left, out of the way, ready for the next round.

The operation of my invention is as simple as it is effective. When sufficient grain has been cut to form a gavel (as the grain is cut it falls with the heads resting principally upon the reel-wing, but partially upon the side-dumper) the driver gives a vigorous push of his foot

(see Fig. 1) to the bent end of lever N, which causes catch M to quickly pull forward the upper end of trip-lever L, which, being fast to the reel-shaft, trips the lower wing of the dumper-reel, as shown in Fig. 3, and dumps the wheat off from it upon the ground. At the same time the cam-lever T upon the reel-shaft strikes against the stud S of the side dumper-shaft, P, thereby tripping the side dumper and dumping the grain which laid upon the side dumper, as shown by red lines in Fig. 2. The balance of weight of the side dumper restores it to its quiet position when the grain is discharged.

At the instant that the grain is discharged from the reel-wing the inner end of the reel-shaft is somewhat raised, as before described, so that the weight of the grain being removed the fall of that end of the shaft serves to assist the reel in making a complete revolution to bring the other wing immediately in position for the next gavel. It is intended that the other end of trip-lever L shall, as it turns, slip past the beveled edge of catch M and set itself for the next dumping. After the grain has thus been dumped the machine passes on,

and the track-clearer easily sweeps to the left in a gavel out of the track, so as to be ready for another round.

Having described my invention, I claim as new and desire to secure by Letters Patent—

1. The side dumper, O, or its equivalent, substantially as and for the purposes set forth.

2. The dumper-reel H, in combination with the side dumper, O, substantially as and for the purposes set forth.

3. The combination of the dumper-reel H, side dumper, O, and track-clearer U, substantially as and for the purposes set forth.

4. The device used for tripping the dumper-reel, substantially in the manner described.

5. The device used for tripping the side dumper, substantially in the manner described.

In testimony that I claim the above I have hereunto set my hand this 27th day of March, 1866.

E. P. RUSSELL.

Witnesses:

JOSEPH BAKER,
S. W. RUSSELL.