

O. C. GREEN.
Harvester Dropper.

2 Sheets—Sheet 1.

No. 98,689.

Patented Jan. 11, 1870.

FIG. 1.

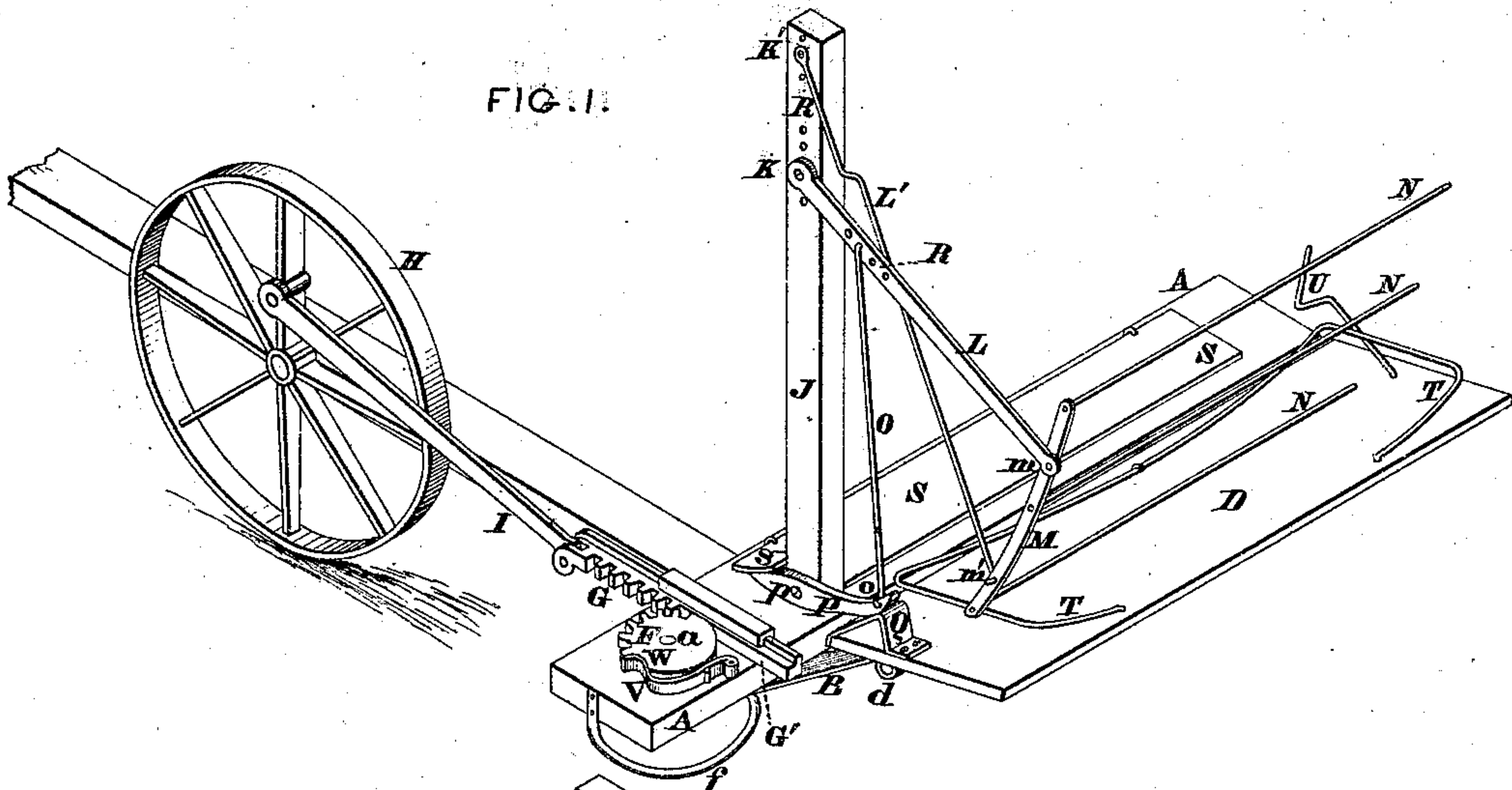


FIG. 2.

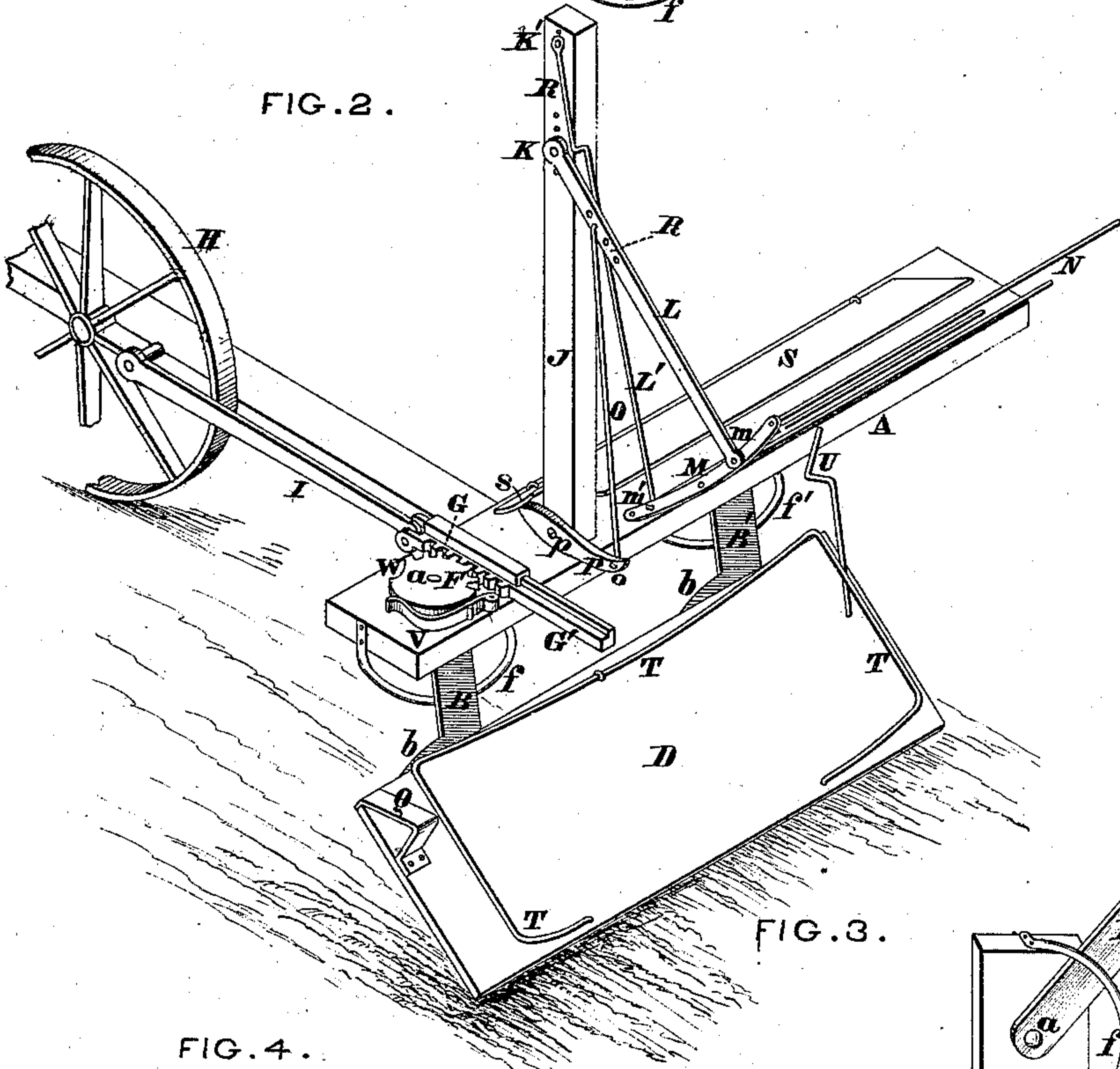


FIG. 3.

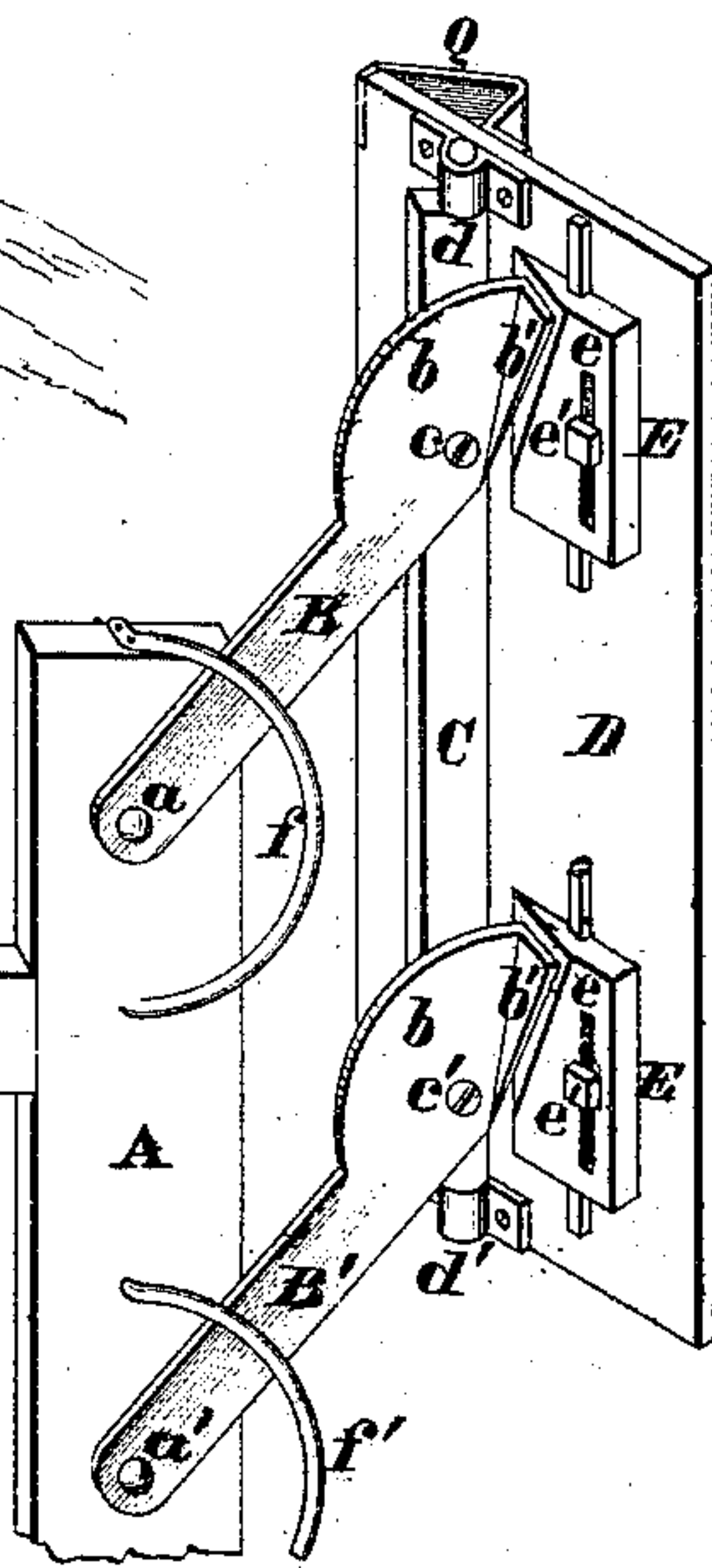
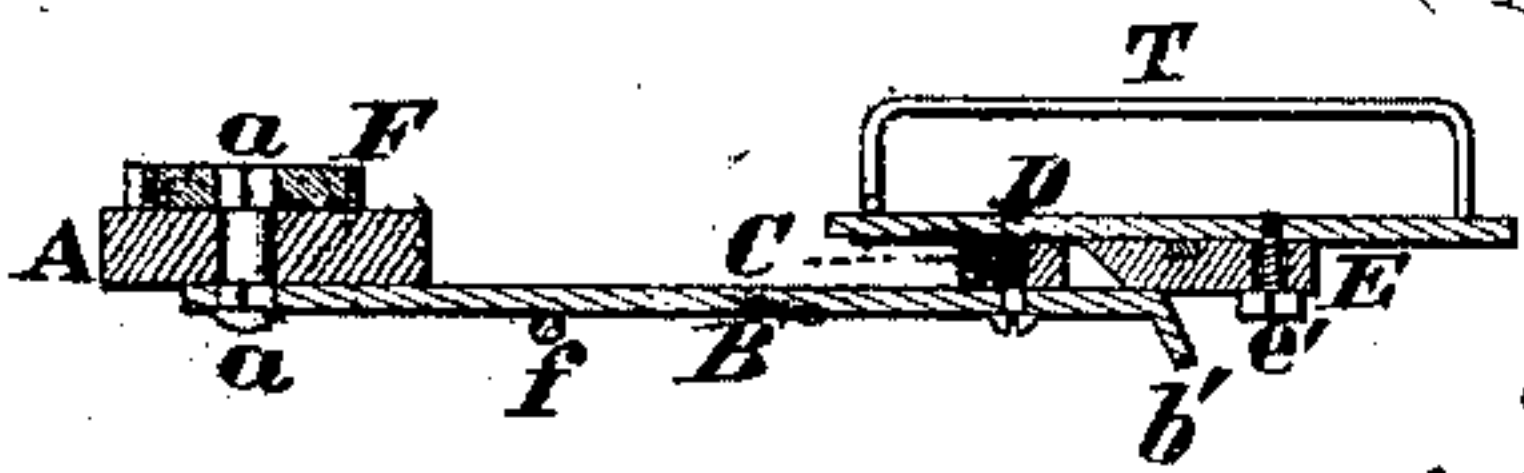


FIG. 4.



Knight Bros.
Attorneys of
O. C. Green.

ATTEST.

Jas. H. Loayman,
 Sam. Knight

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FIG. 5.

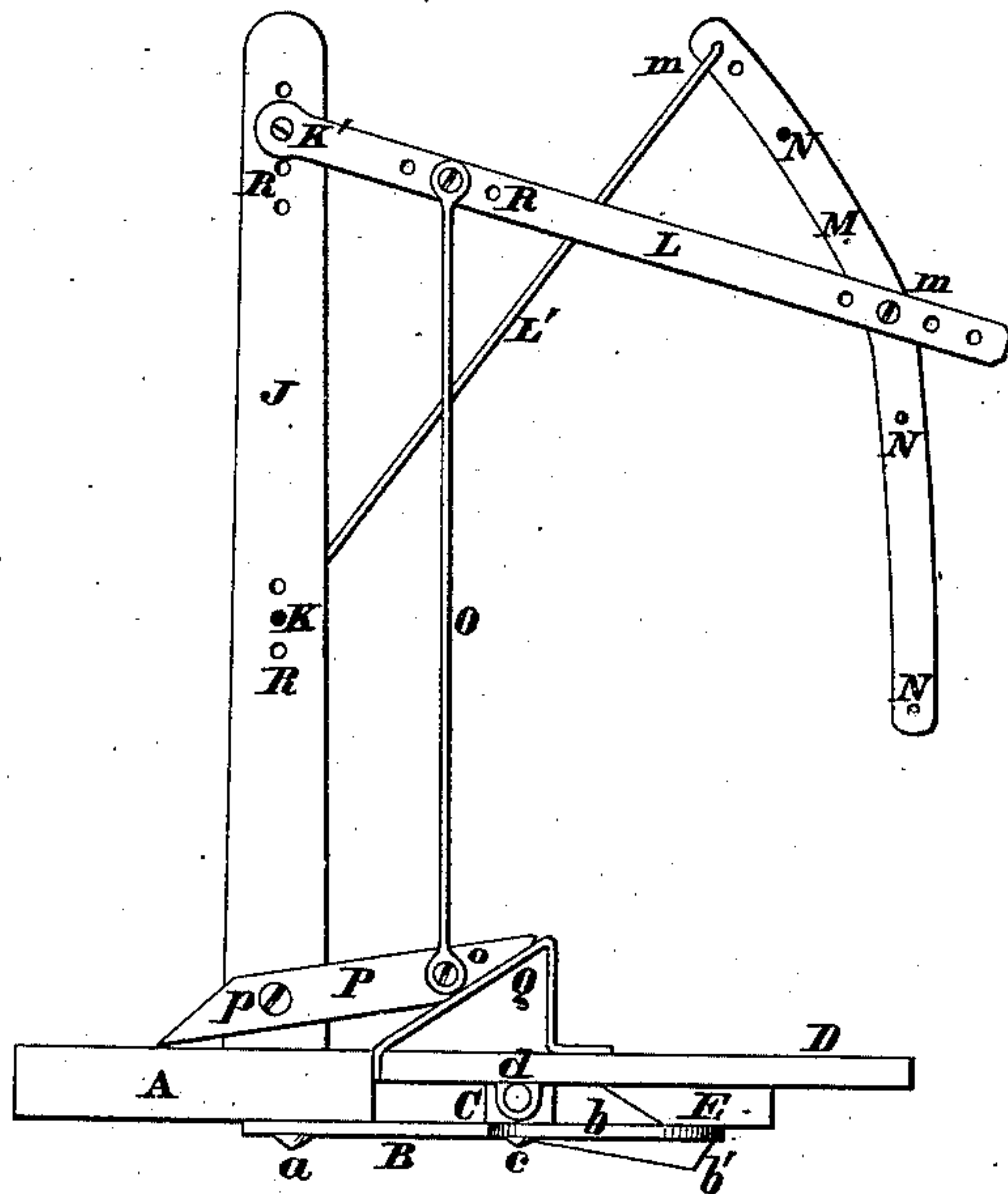
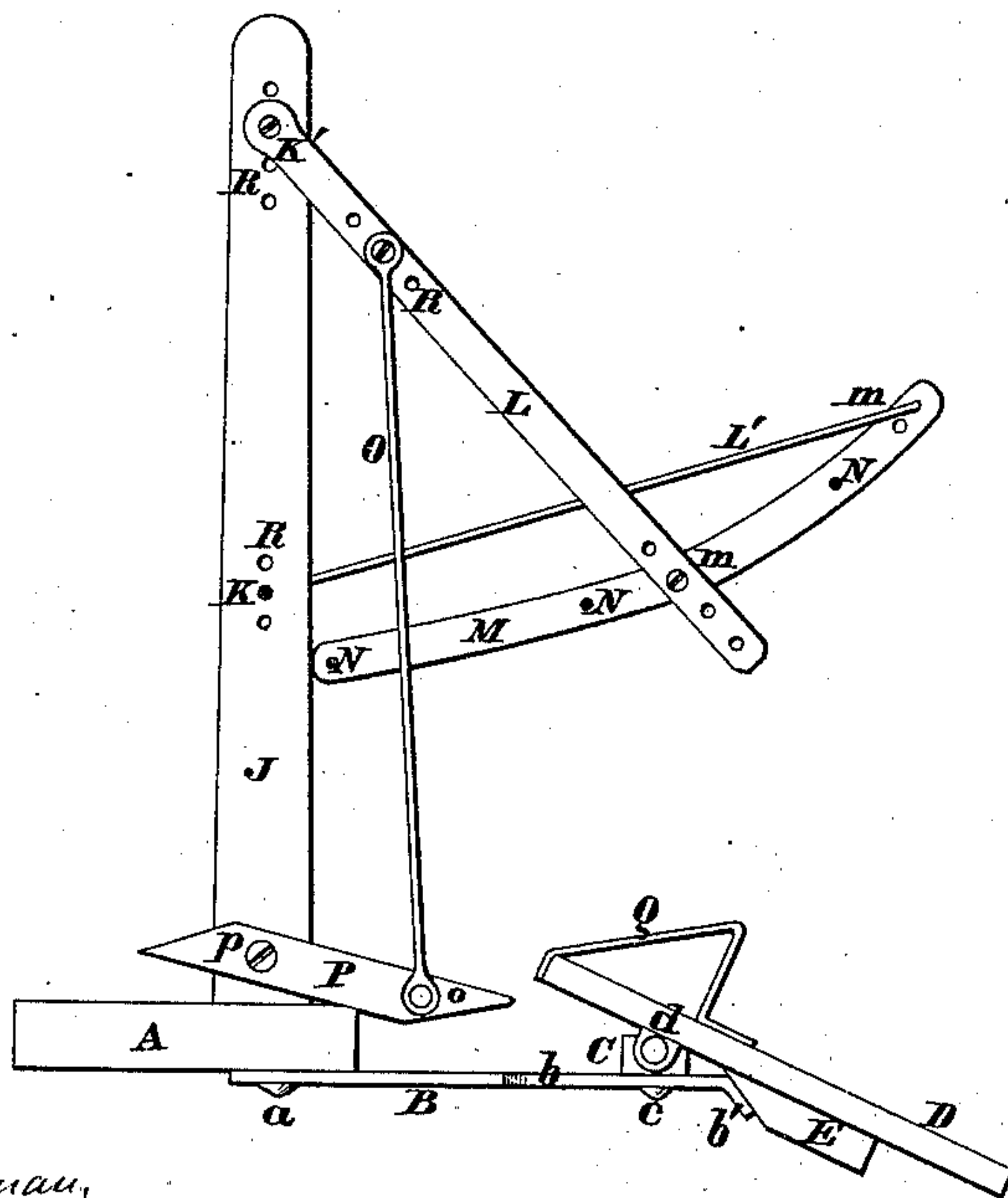


FIG. 6.



ATTEST.

Wm. H. Layman,
Clerk of Court.

Knight Bros.
Attorneys of
O. C. Green

United States Patent Office.

OLIVER C. GREEN, OF DUBLIN, INDIANA.

Letters Patent No. 98,689, dated January 11, 1870.

IMPROVEMENT IN DROPPING-DEVICE FOR HARVESTERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, OLIVER C. GREEN, of Dublin, in the county of Wayne, and State of Indiana, have invented a certain Dropping-Attachment for Harvesters, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to an attachment for reaping-machines or harvesters, whereby the grain is dropped or delivered in rear of the running gear, and out of the track of the next swath or cutting; and

The first part of the invention consists in the employment or use of an adjustable bearing for the supporting-arms of the swinging platform, to enable the regulation of its action, and in the provision of the platform with a cradle, to retain the grain thereon.

The second part of the invention consists in a peculiar construction of automatic rest or cut-off, for the temporary support of the grain during the withdrawal of the platform.

The third part of the invention consists in the combination, with such platform, and a lever actuated thereby, of a deflector or grain-lifter, to guide the grain on to the cut-off when it is in use.

The fourth part of the invention consists in a novel combination of devices for operating the swinging platform.

General Description with Reference to the Drawings.

Figure 1 is a perspective view of the principal operative parts of my attachment, in position for catching the grain as it is delivered by the reel.

Figure 2 is a similar view of the same parts, in the dumping-position.

Figure 3 is an under-side view of the dumping-platform and its accessories.

Figure 4 is a longitudinal section through one of the arms that support the dumping-platform.

Figures 5 and 6 represent respectively the open and closed position of a modified form of my cut-off.

Firmly connected by pivot-bolts $a a'$ to the under side of the beam A, which may be a part of the platform proper, are two equal radial arms B B', one or both of whose free extremities terminate in wings b , in the plane of said arms and lips b' , which project obliquely from said plane, for a purpose explained in the sequel.

To the upper side of said arms B B', at or near their free extremities, there is connected, by pivot-bolts $c c'$, a shaft, C, which occupies journal-bearings $d d'$, on the under side of my shifting and dumping-platform D, to whose under side are secured one or more chamfered blocks or stumps E, against which the wing b bears, so as to support the platform in the receiving-position, as in fig. 1, and from which they

are relieved, the said stumps dropping in contact with the oblique lips b' , when the platform is shifted to its dumping-position, as in figs. 2 and 3.

In order to enable the platform D to assume, when closed, either a horizontal or a depressed position, or to assume a somewhat upturned position, as in fig. 1, the chamfered stumps are made adjustable by means of slots e , and set-screws e' , or otherwise.

The free ends of the radial arms may be supported on bars $f f'$.

The aforementioned shifting and dumping-motions of the platform are effected automatically by the provision, on the shaft or bolt a , of a pinion or cog-sector F, with which gears a rack-bar, G, having a blank portion G' , which permits the platform D to remain quiescent in its receiving-position during one entire half of the movement, the remaining half of the time being occupied in the operations of shifting, dumping, and returning the platform.

The rack-bar G G' is connected to a wheel, H, driven from the ground-wheel by means of a pitman, I, in such a manner as that its wheel end shall pass the "dead-points," or those of least motion, at the receiving and dumping-positions respectively, so as to afford the grain ample time to get on and off the platform, and so as to expedite as much as possible the passage and return of the platform to and from the dumping-position.

My cut-off or temporary rest for the grain is constructed as follows:

Attached to the beam A is a post, J, to which are secured, by pivot-bolts K K', the arms L and L', whose free extremities are pivoted $m m'$ to a curved head, M, from which project, horizontally, a series of prongs, N.

Pivoted to the arm L, near its point of attachment to the post J, is a rod, O, whose lower end is pivoted, o , to the long arm of a lever, P, fulcrumed, p , to the post J, against which arm there impinges, in the act of closing the platform, a sloping tappet, Q, which operates, through the instrumentality of the rod O and arms L and L', to both elevate the cut-off and to swing backward the lower portion thereof, so as to promptly and effectually drop or deposit upon the platform the temporary accumulation of grain from the cut-off. Additional pivot-holes, R, enable the proper relative adjustment of the different members of the cut-off.

In order to elevate and direct on to the cut-off all lodged or tangled grain, I provide a lifter or deflector, the same being a plate or board, S, hinged by its front edge to the beam A, and having a wing, s , which, resting upon the short arm of the lever P, operates to elevate the deflector simultaneously with every

depression of the cut-off, the said deflector dropping flatly upon the beam A on the closing of the platform D.

A cradle, T, upon the top of the platform D, serves to gather to the middle of the said platform the grain falling upon the same.

A spring, V, entering a recess, W, in the cogged sector, serves to hold the latter in place, so as to prevent any accidental movement of the same.

The platform D has attached to it a hook, U, which, entering the re-entrant angle or "throat" of the divider (not shown) may, on the opening of the platform, operate to drag out from, and clear the said throat of and prevent the accumulation of grain and trash.

Whenever it is desired to employ a more open form of "cut-off" than the one represented in figs. 1 and 2, it may be constructed as shown in figs. 5 and 6, the rod L' in this case being pivoted at one end to the upper portion of the curved head M, while the other end of said rod is pivoted to the post J, at or near the mid-length of the same.

Operation.

The machine being advanced so as to cut the grain, the latter, in falling from the reel, (not shown,) drops upon the platform D, and is by it shifted laterally to a position behind the main frame, and is there dumped without disturbing or changing the direction of the grain.

The instant the platform D leaves its closed position, the cut-off drops into its receiving-position, and the deflector becomes elevated to a position which enables it to forward the grain to the cut-off.

The platform D having delivered its load of grain upon that portion of the ground outside of the track of the cutter, returns to its closed position, and simultaneously therewith the cut-off and the deflector return to their respective non-effective positions, when the work proceeds as before.

While describing the essential features of my invention, I reserve the right to modify the same as circumstances may require; for example, the described mechanism may be capable, by uncoupling, of being

changed at will from an automatic to an optional movement under control of the driver, through the medium of a suitable uncoupling-device, and hand or foot-lever, or treadle.

The prongs of the cut-off may, for some descriptions of grain, be covered with sheeting or canvas.

The arm L of the cut-off may be prolonged in front of the post J, and be connected with the short instead of the long arm of the lever P, by a cord or wire.

The wings *b* and lips *b'* may operate directly against the under side of the platform.

The lever P may be operated from the cogged sector F, instead of from the platform D.

The wing *b* and lip *b'* may be on either one or both of the arms B B'.

Claims.

I claim, as my invention—

1. The adjustable chamfered stumps or projections E, for the purpose designated.
2. The combination and arrangement of the arms L L', head M, prongs N, rod O, and lever P, constituting an automatic cut-off, as and for the purpose described.
3. The combination, with a side-delivering platform and a cut-off, constructed and operating as herein set forth, of the tappet Q and lever P, for operating the cut-off from the platform.
4. The combination, with a side-delivering platform, operating as described, and a lever, P, actuated by said platform, of the deflector or grain-lifter S s, as and for the purpose set forth.
5. The combination of the cogged sector F W, intermittent rack G G', and spring V, constructed and operating as described, for the purpose set forth.
6. The combination, with a side-delivering platform, of a cradle, T, for the purpose stated.

In testimony of which invention, I hereunto set my hand.

OLIVER C. GREEN.

Witnesses:

GEO. H. KNIGHT,
JAMES H. LAYMAN.