

(No Model.)

2 Sheets—Sheet 1.

A. LECHER.
BUNDLE CARRIER FOR GRAIN BINDERS.

No. 420,237.

Patented Jan. 28, 1890.

Fig. 1.

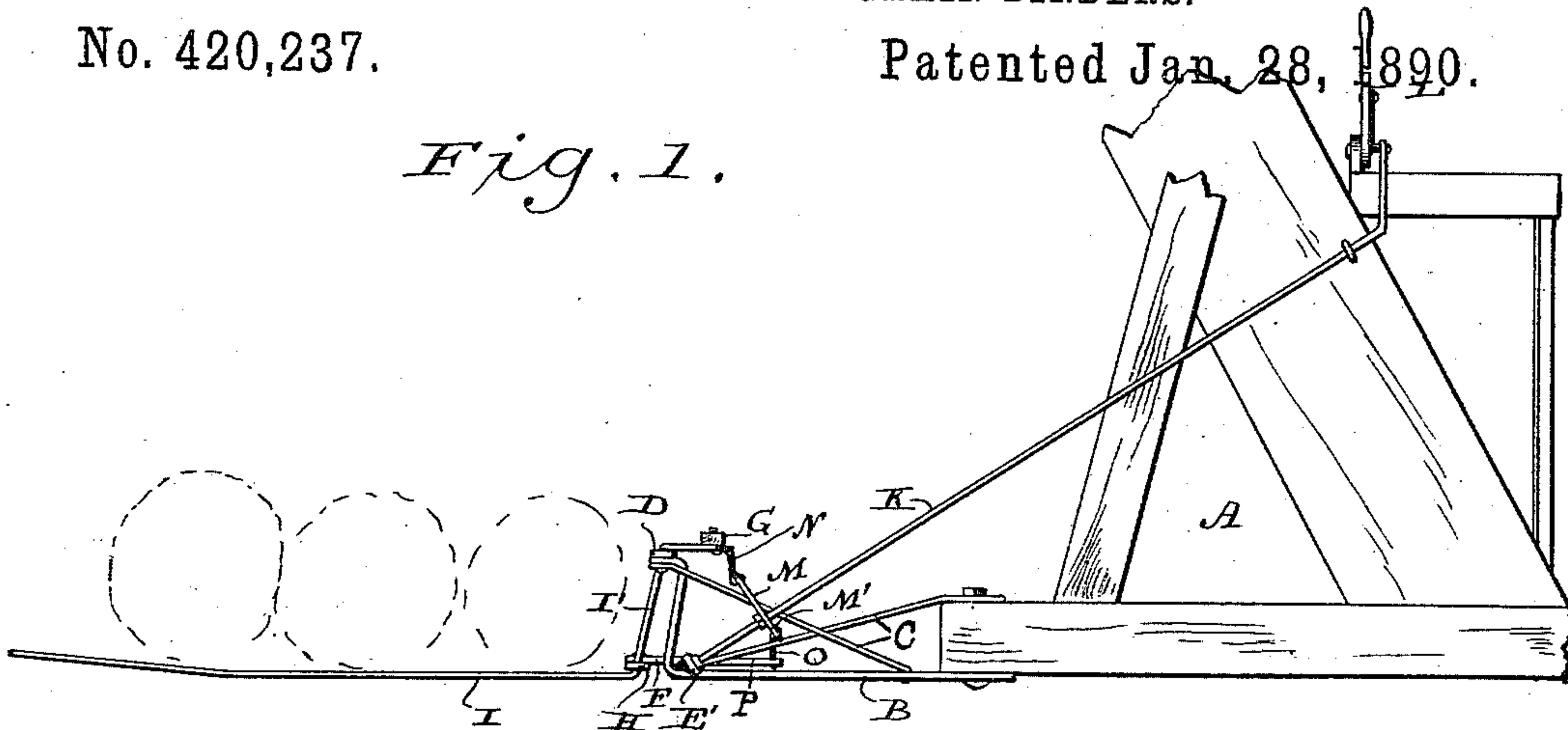


Fig. 2.

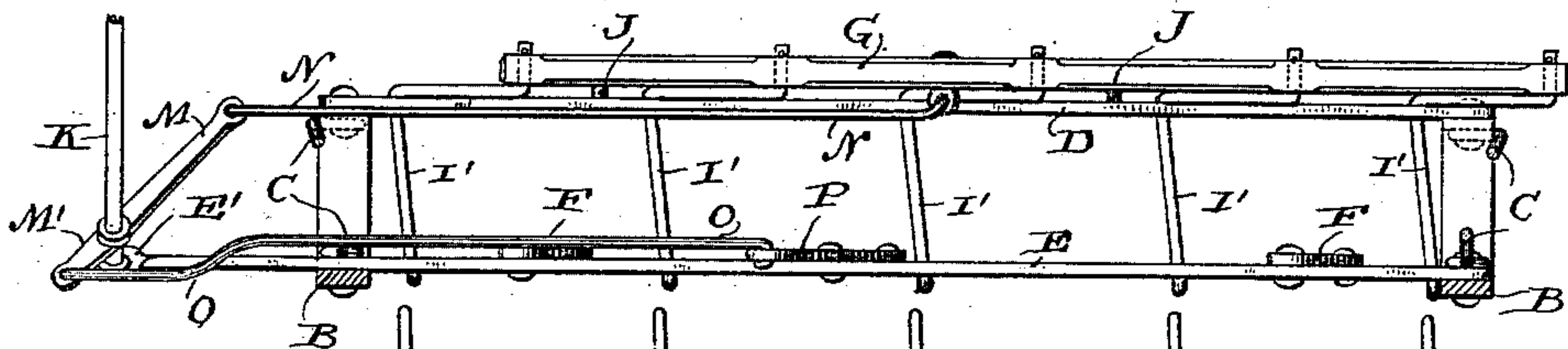
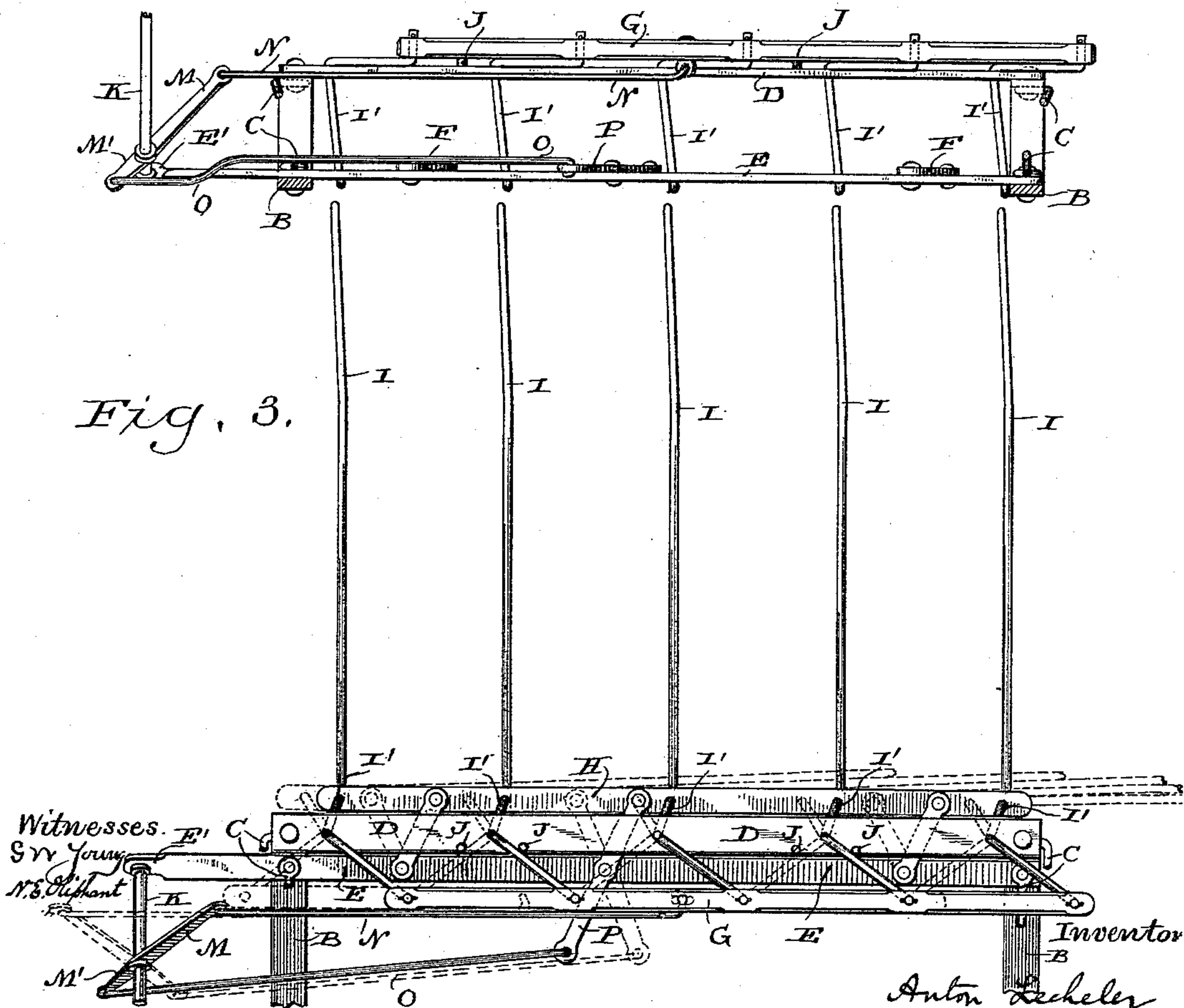


Fig. 3.



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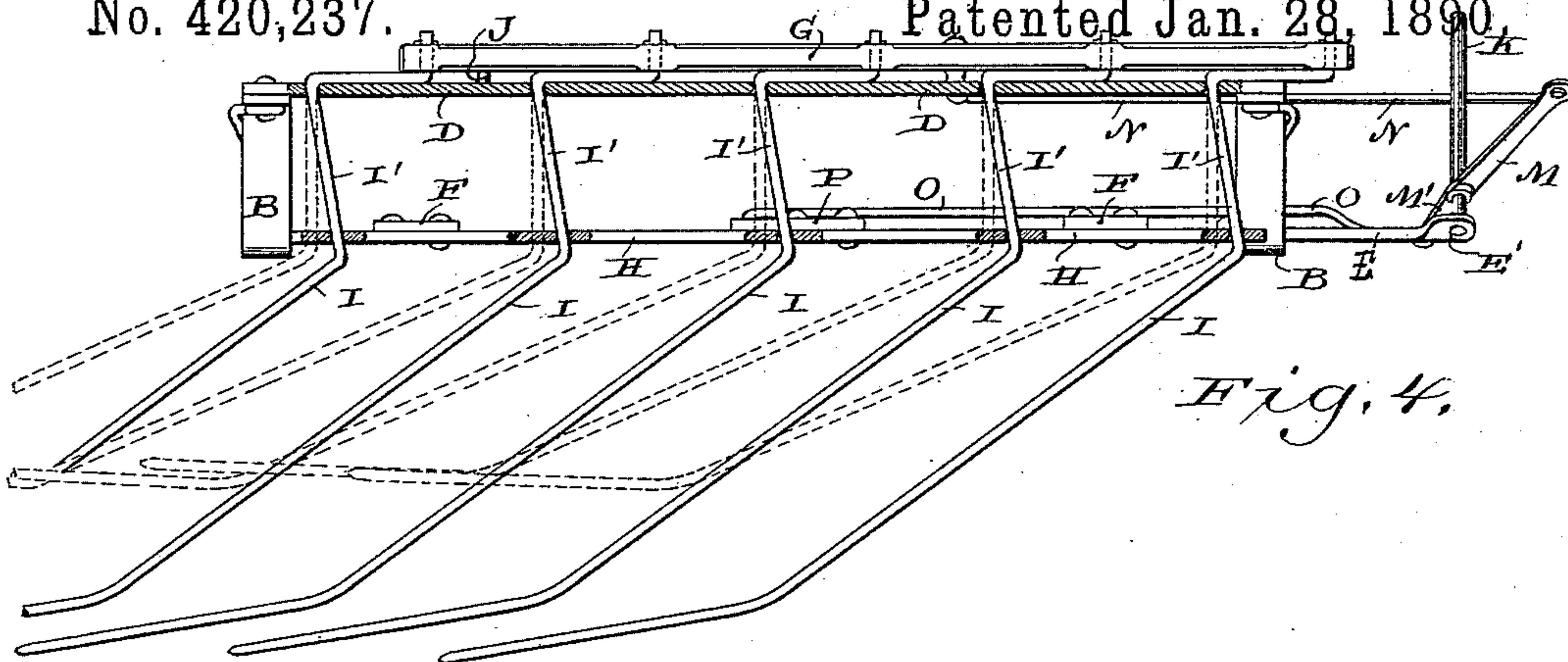


Fig. 4.

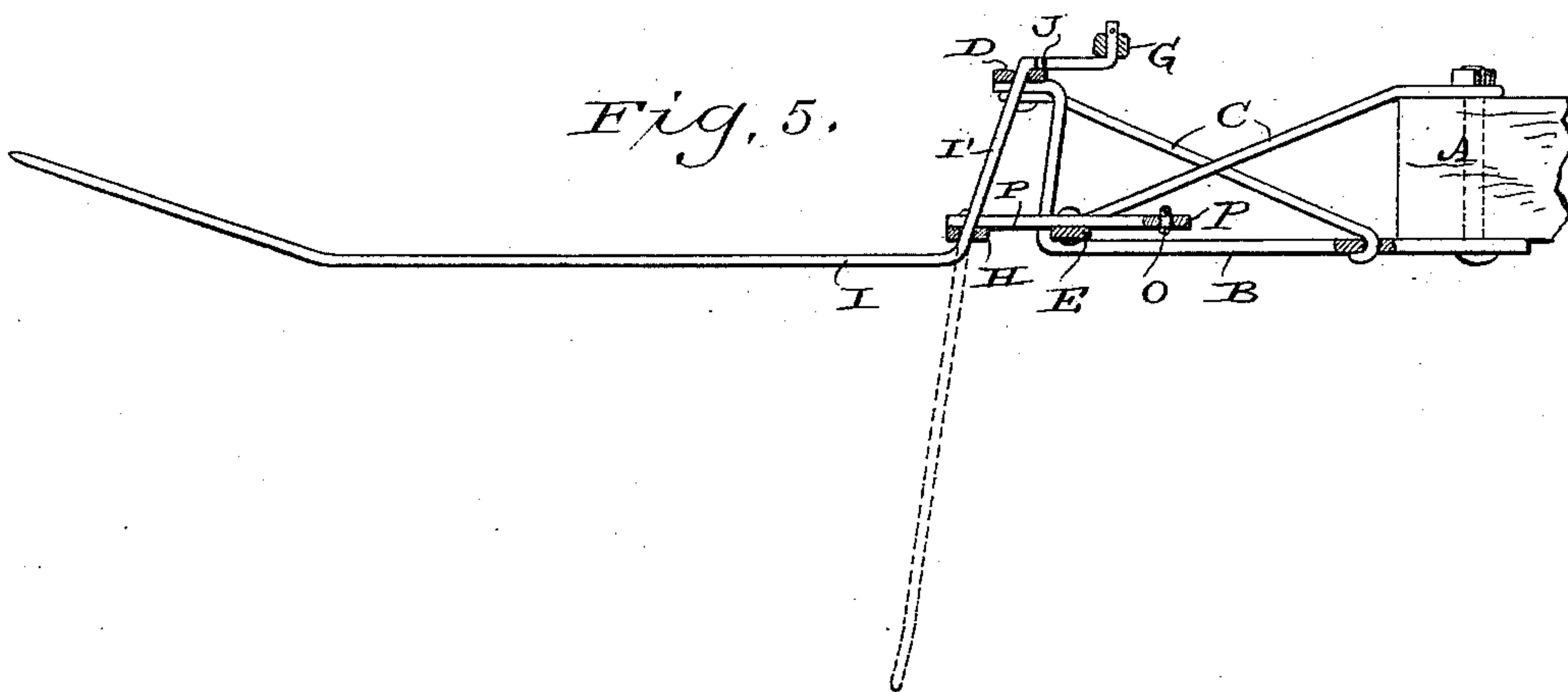
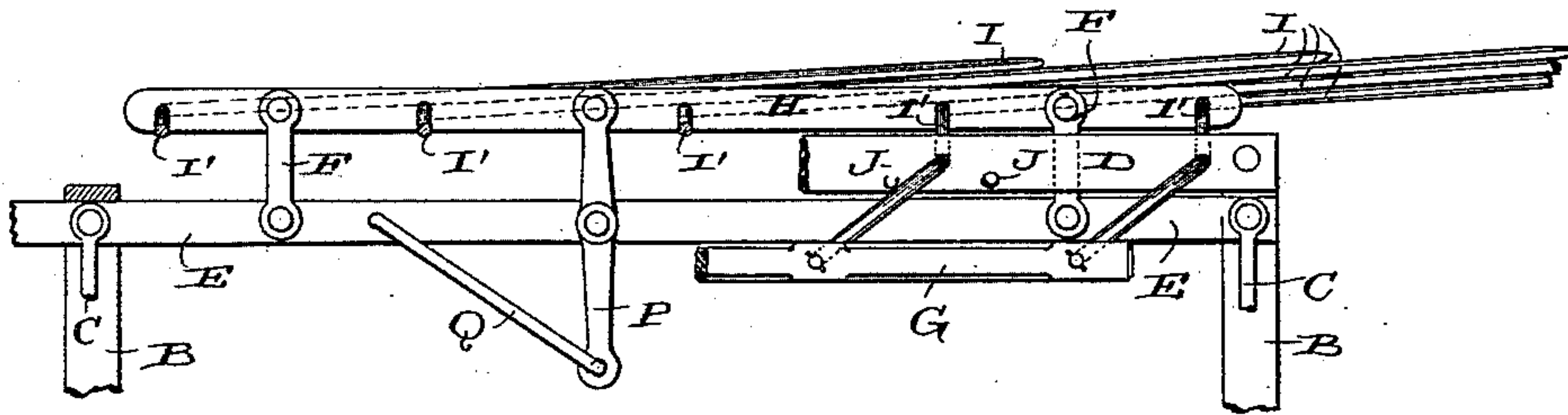


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

ANTON LECHER, OF MAYVILLE, WISCONSIN.

BUNDLE-CARRIER FOR GRAIN-BINDERS.

SPECIFICATION forming part of Letters Patent No. 420,237, dated January 28, 1890.

Application filed August 24, 1888. Serial No. 283,633. (No model.)

To all whom it may concern:

Be it known that I, ANTON LECHER, of Mayville, in the county of Dodge, and in the State of Wisconsin, have invented certain new and useful Improvements in Bundle-Carriers for Grain-Binders; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to bundle-carriers for grain-binders; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings, and subsequently claimed.

In the drawings, Figure 1 represents a front elevation of my bundle-carrier attached to a grain-binder and in its carrying position; Fig. 2, an elevation of the inner side of my device; Fig. 3, a plan view of the same; Fig. 4, an elevation of that side of my bundle-carrier farthest from the binder, certain of the parts being in section; Fig. 5, a transverse section of my device with parts broken away, and Fig. 6 a detail plan view of the same with parts broken away.

Referring by letter to the drawings, A represents a portion of a harvester-frame, and bolted or otherwise rigidly secured to stubble side of this frame are outwardly-extending irons B, having upturned outer ends terminating in right-angle bends, said irons being supported by braces C, that are also bolted or otherwise rigidly secured to the stubble side of said frame.

Rigidly secured to the irons B are upper and lower longitudinal bars D E, and connected to the latter bar by means of links F is a lower movable bar H. The bar D is attached at its ends to the right-angle bends on the upturned outer ends of the supporting-irons B, while the bar E is secured on the outwardly-extended horizontal portions of said irons.

The upper stationary bar D and the lower movable bar H are provided with a series of openings that serve as bearings for the vertical portions I' of crank-shaped inner ends of the carrier-fingers I, said vertical portions of these fingers being arranged at an angle to a vertical plane in the path of the harvester, and also engaged by openings in an upper

movable bar G, said upper and lower movable bars being arranged on opposite sides of the upturned ends of the irons of the supporting-frame composed of said irons B, braces C, and bars D E.

In order to limit the movement of the carrier-fingers in either direction, I provide the stationary bar D on its upper side of its inner edge with a series of lugs or stops J, as best illustrated in Figs. 2 and 3, against which the cranked portions of the fingers contact.

The lower stationary bar E is extended beyond the forward one of the irons B, and is provided with a bearing E' for a shaft K, that connects with a lever L on the harvester-frame. Fast on the shaft K is a lever that has its longer arm M connected by a rod N with the upper movable bar G, and its shorter arm M' connected by a rod O with another lever P, that is pivoted to the lower stationary bar E and wristed to the lower movable bar H. For the purpose to be hereinafter described, the rod O may be detached and the lever P connected to the lower stationary bar E by means of a short rod Q, as illustrated in Fig. 6.

In describing the operation of my bundle-carrier, I will first suppose the same to be in position to receive the bundles as they are discharged from the binder, this position being illustrated by full lines in Figs. 1, 3, and 5. Now, if the lever L be operated to turn the shaft K in its bearing E' on the forward end of the lower stationary bar E, the long and short arm lever that is fast on said rod will be actuated, and through the medium of the rods N O will move the bars G H in the same direction. The draw of the movable bars G H on the vertical portions I' of the fingers I causes the latter to partially rotate in their bearings, move to the rear, and at the same time drop to the position illustrated by dotted lines, Figs. 3 and 5 and full lines in Fig. 4, to thereby discharge the load. The movement of the bar G causes the partial rotation of the fingers, while the movement of the bar H brings their vertical portions I' to the inclination shown by full lines, Fig. 4, this double movement causing the backward sweep and downward drop of said fingers. By a reverse movement of the lever L the

parts above enumerated are brought back to the first position, ready for another load of bundles.

When the binder is on the road or being driven from one field to another, I prefer to detach the rod O from the lever-arm M' and the lever P, and by means of the short rod Q lock the lower movable bar H to the adjacent stationary bar E, as illustrated in Fig. 6. Now, if the fingers I be in the position shown in full lines by Figs. 1, 3, and 5 and the lever L operated, only the upper movable bar G will be actuated, and consequently said fingers, instead of dropping by reason of the forward movement of the bar H, as hitherto explained, will be turned back with a downward sweep toward the harvester, to lie close to one another and to the harvester-frame, as shown by dotted lines in Fig. 4. The points of the carrier-fingers in the position last described being well up from the ground and being compactly laid against the harvester-frame, are not liable to catch against obstructions, and at the same time are not in the way of the operator.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. In a bundle-carrier, the combination of a supporting-frame comprising the irons B, braces C, and upper and lower stationary bars D and E, the movable bar H, linked to the lower stationary bar E, the fingers I, having crank-ended vertical portions I', journaled at the top in bearings in the stationary bar D and at the bottom in the movable bar H, the movable bar G, arranged on the crank ends of the fingers, the shaft K, the lever having a long and short arm fast on the shaft, the lever P, pivoted on the supporting-frame, and rods O and N, connecting, respectively, the lever P with the short arm and the bar G with the long arm of said lever on the shaft, all arranged to operate substantially as set forth.

2. In a bundle-carrier, the combination of a supporting-frame comprising the irons B, braces C, upper bar D, provided with the stops J, and the lower bar E, the movable bar

H, linked to the lower bar E, the fingers I, having the crank-ended vertical portions I', journaled at the top in bearings in the bar D and at the bottom in the movable bar H, the movable bar G, arranged on the crank ends of the fingers, the shaft K, a lever having a long and short arm fast on the shaft, the lever P, pivoted on the supporting-frame, and rods O and N, connecting, respectively, the lever P with the short arm and the bar G with the long arm of said lever on the shaft, all arranged to operate substantially as set forth.

3. In a bundle-carrier, the combination of a supporting-frame comprising the irons B, braces C, and upper and lower bars D and E, the movable bar H, linked to the lower bar E, the fingers I, having crank-ended vertical portions I', journaled at the top in bearings in the bar D and at the bottom in the movable bar H, the movable bar G, arranged on the crank ends of the fingers, the shaft K, a lever having a long and short arm fast on the shaft, the lever P, pivoted on the supporting-frame, the rod N, connecting the bar G with the long arm of said lever on the shaft, and the detachable rod Q, connecting the bar E and lever P, all arranged to operate substantially as set forth.

4. In a bundle-carrier, the combination of carrying-fingers having at their inner ends vertical portions constituting pivots or journals, a main supporting-bar in which the vertical portions of the fingers are journaled at or near one end, a sliding bar through which the opposite ends of the vertical portions pass, and means for moving the bar so as to swing the vertical portions of the fingers from a vertical to an inclined position in dumping the bundles, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

ANTON LECHER.

Witnesses:

N. E. OLIPHANT,
WILLIAM KLUG.