

No. 702,778.

Patented June 17, 1902.

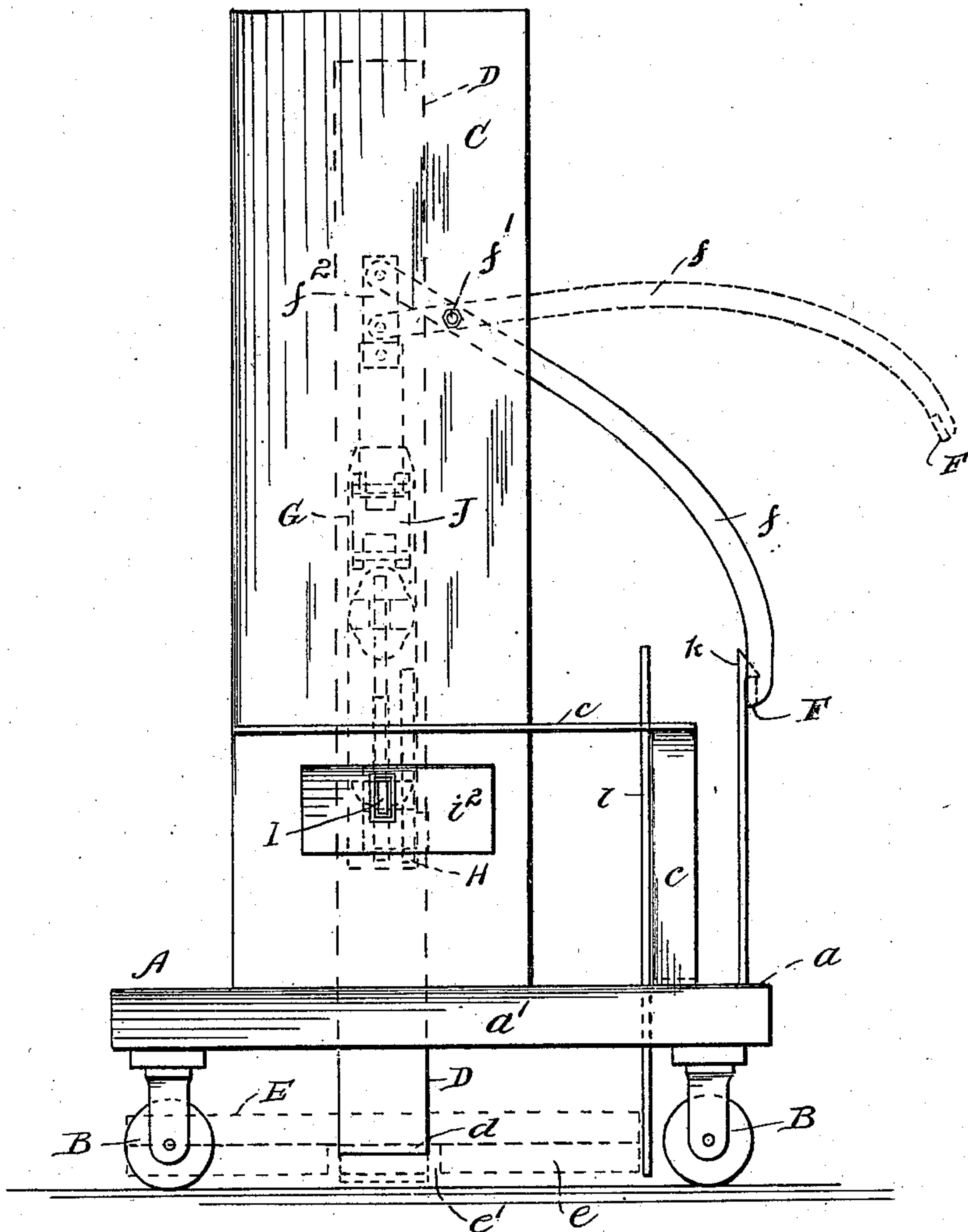
B. COLSETH.
LIFTING TRUCK.

(Application filed Jan. 6, 1902.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1



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3 Sheets—Sheet 2.

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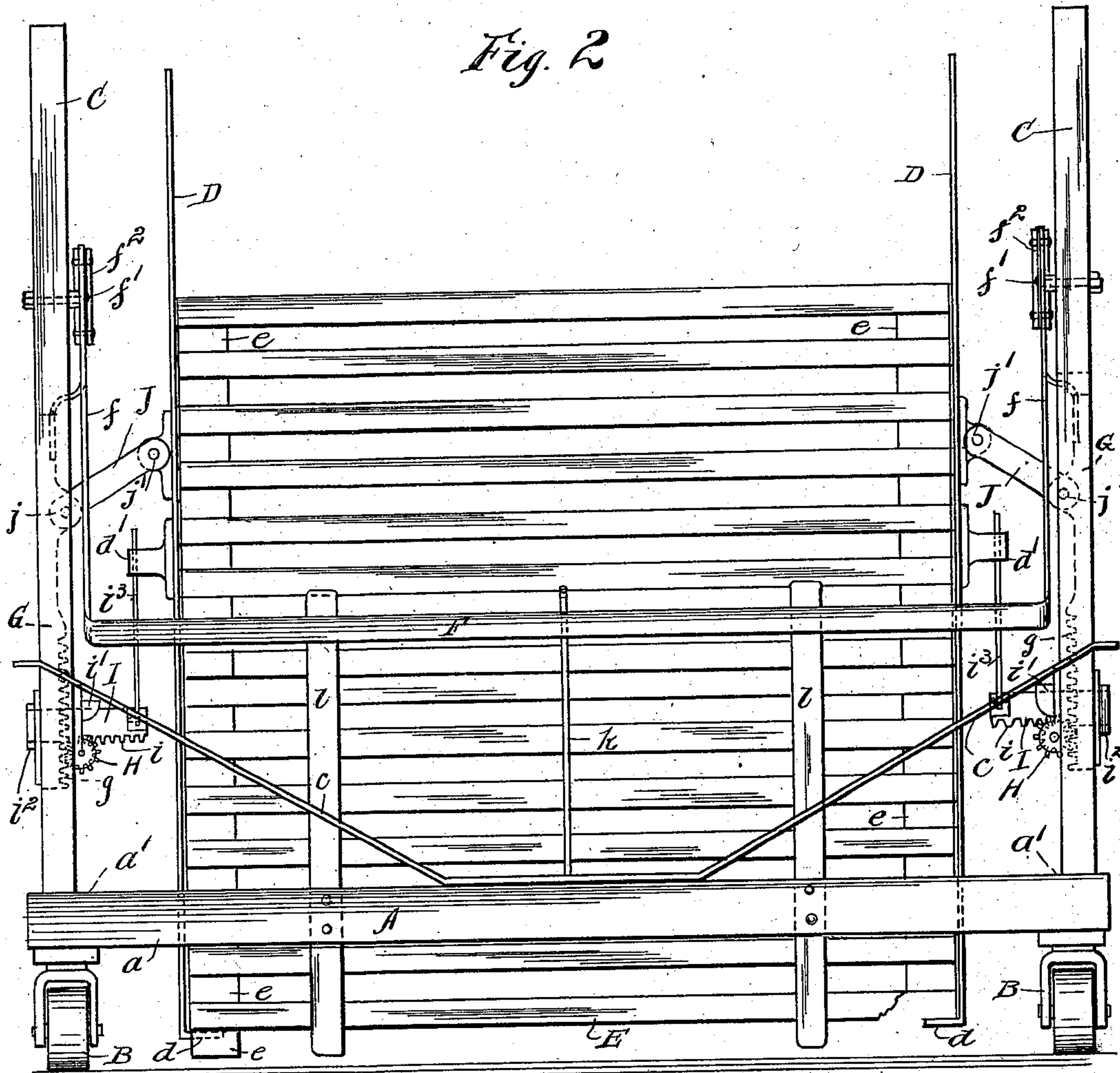


Fig. 8.

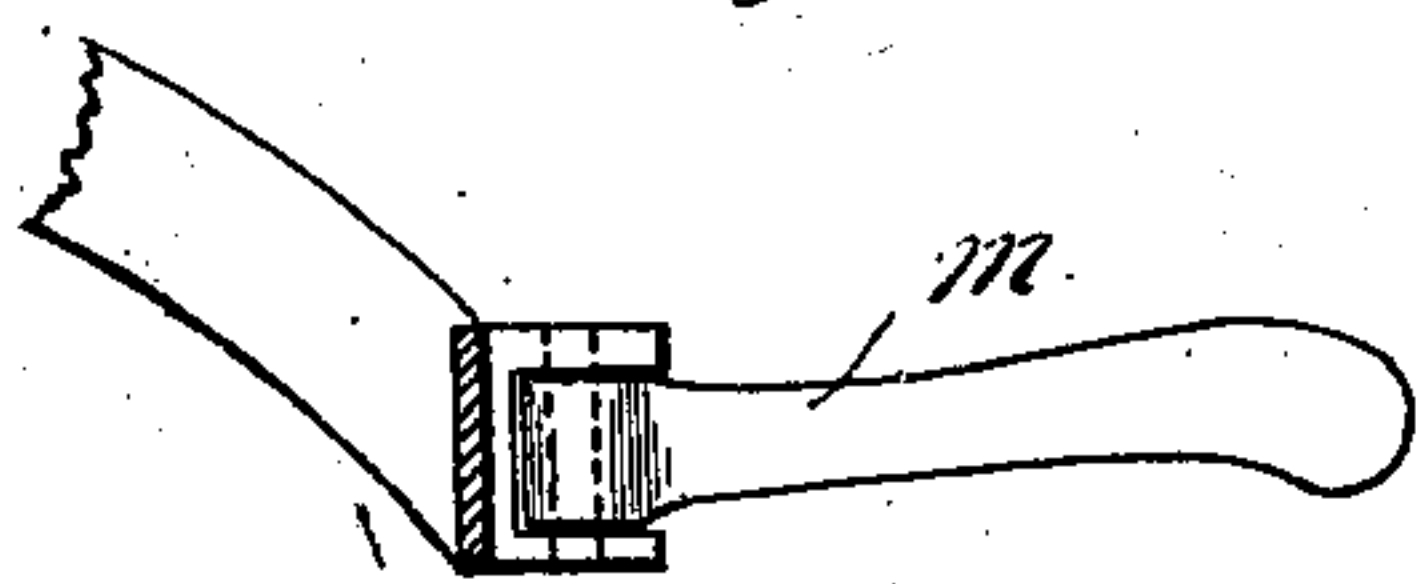
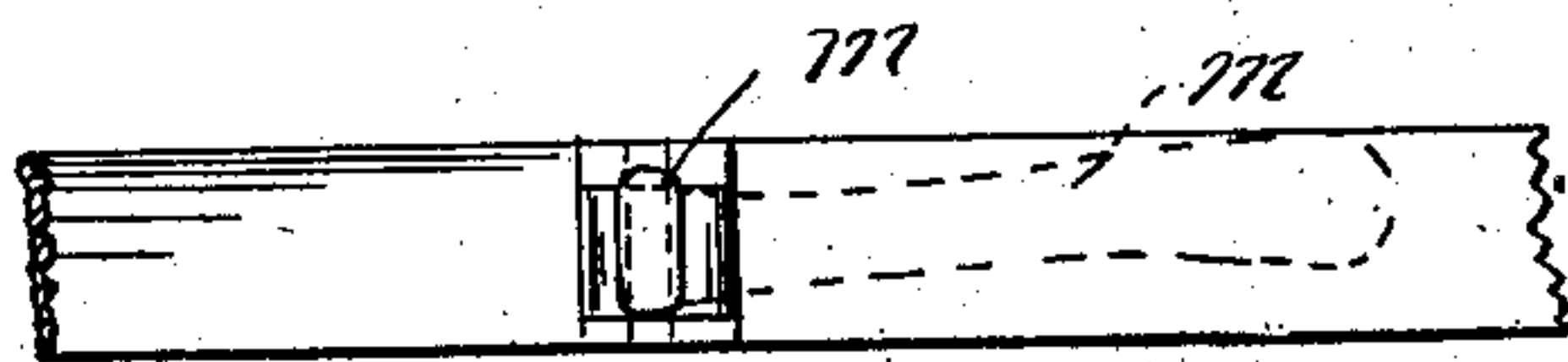


Fig. 7.



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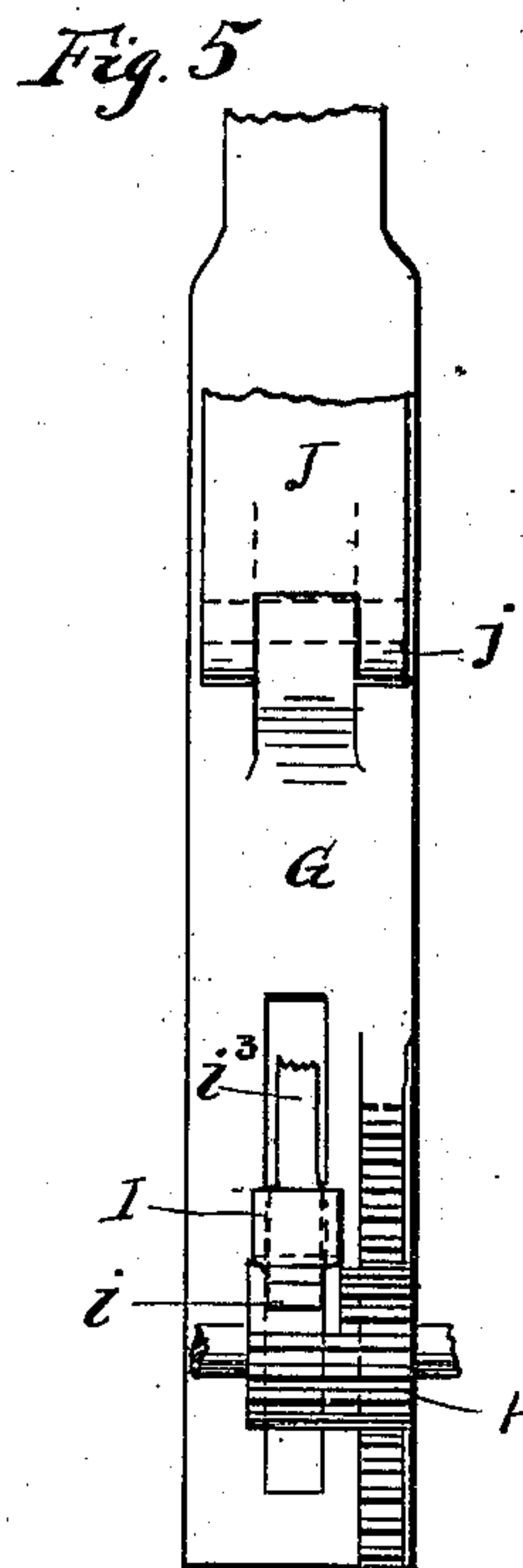
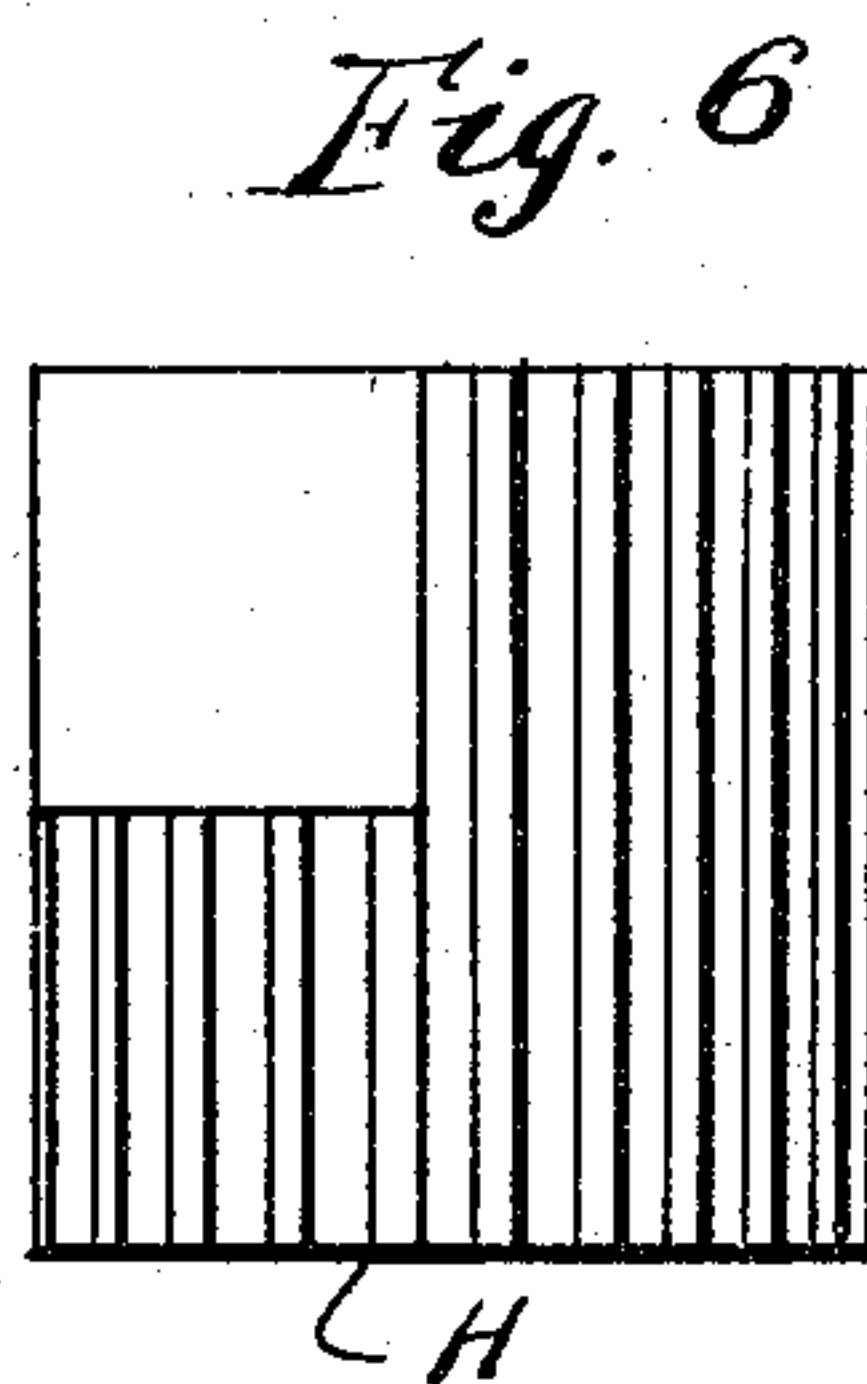
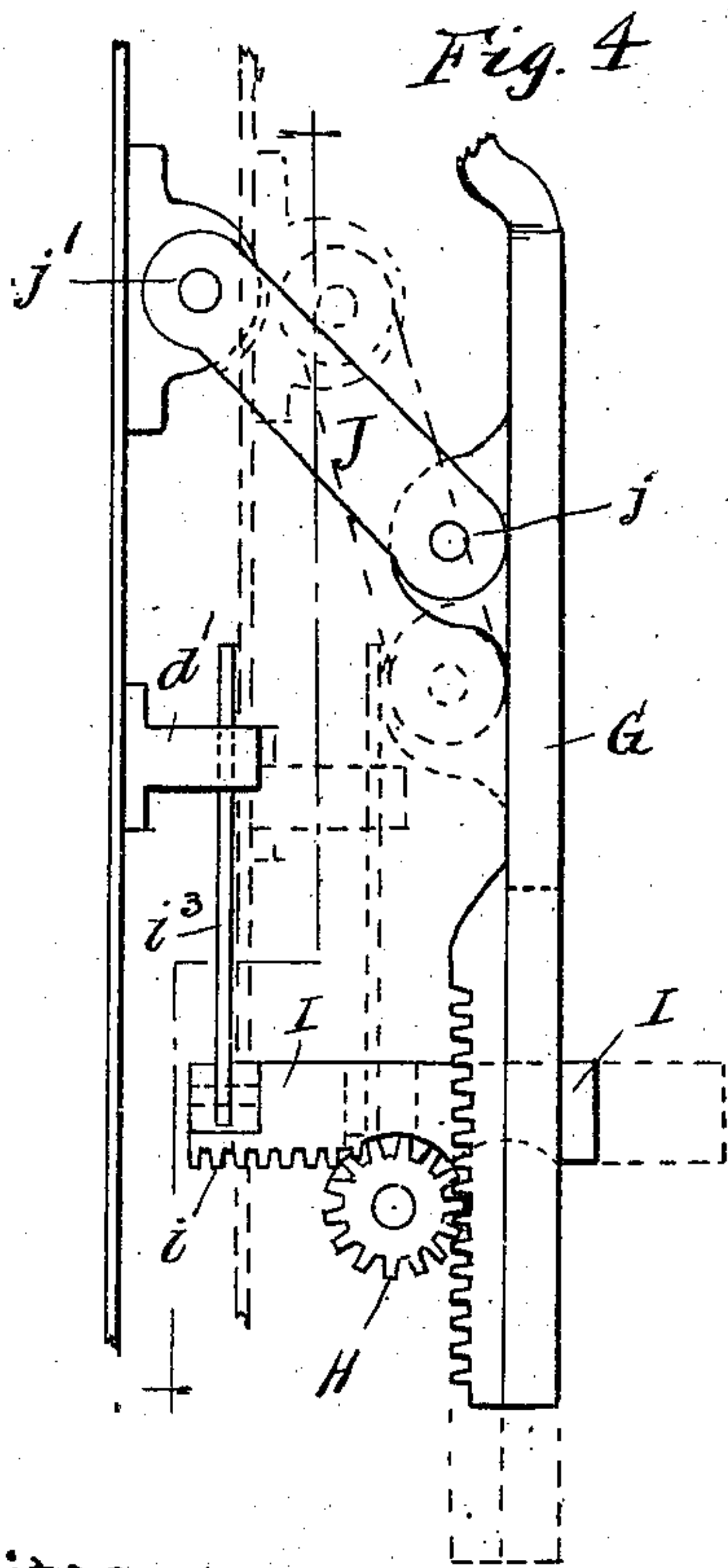
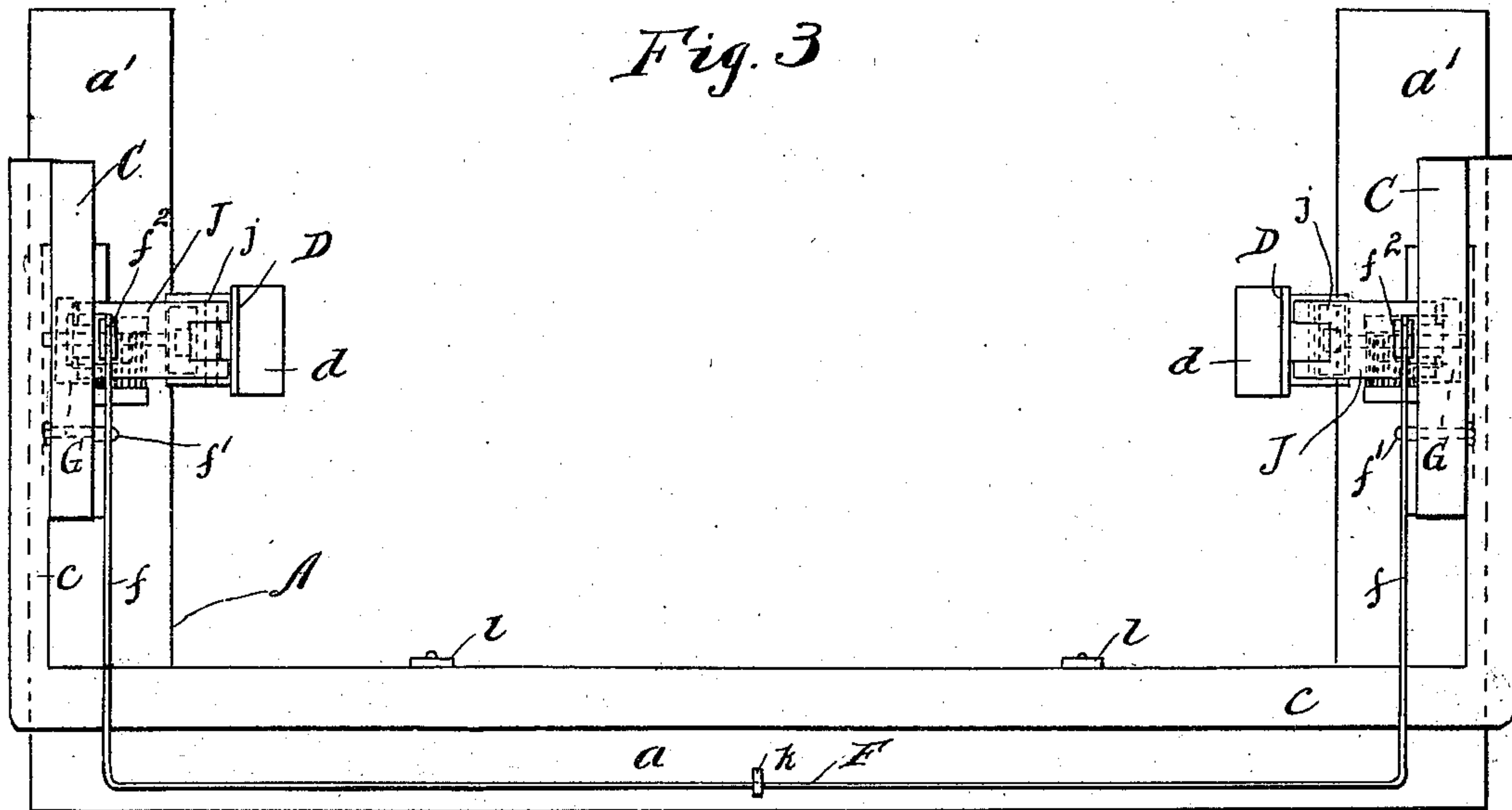
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B. COLSETH.
LIFTING TRUCK.

(Application filed Jan. 6, 1902.)

(No Model.)

3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

BARNARD COLSETH, OF CHICAGO, ILLINOIS.

LIFTING-TRUCK.

SPECIFICATION forming part of Letters Patent No. 702,778, dated June 17, 1902.

Application filed January 6, 1902. Serial No. 88,689. (No model.)

To all whom it may concern:

Be it known that I, BARNARD COLSETH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lifting-Trucks, of which the following is a specification.

This invention relates to means whereby heavy or bulky articles may be readily raised from the floor to be wheeled from place to place, and has for its objects to provide means for the purpose indicated that will be simple and strong in construction and durable and efficient in use. It is designed more particularly to raise and carry a pile of starch-boards, such as are commonly used in the manufacture of confections. It is often desired to move a pile of these boards from one point to another for various purposes, and as accomplished at present each board must be raised separately and placed upon a truck.

By means of this invention the improved truck will be pushed up to a pile of boards, a lever pressed down, and the whole pile raised sufficiently to be readily wheeled around.

It consists in the novel features and combinations fully described and claimed hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is an end view of a truck embodying this invention. Fig. 2 is a front elevation showing a pile of boards raised to be moved. Fig. 3 is a plan view. Fig. 4 is a detail of the lifting mechanism. Fig. 5 is another view of the same. Fig. 6 is a detail of the pinion. Figs. 7 and 8 are details of the folding handle.

A represents a rectangular truck-frame comprising a longitudinal member a and two lateral members a' , forming an open square. This frame is mounted on rollers or casters B to allow its being easily propelled. Uprights C C upon the lateral frame members are braced by braces c and support the load lifting and carrying mechanism.

The load is engaged and raised by two uprights bars D D, bent at the lower extremities to form short hooks d , as shown in Fig. 2, which engage the lower board E through openings or hand-places e' , cut out of the separating-cleats e . (Shown in dotted lines, Fig. 1.) The bars D D are projected in to en-

gage the load and then raised by the mechanism shown in Figs. 4 and 5. A longitudinal handle F is turned at the ends to form a pair of bent levers f , one at either end of the truck, which are pivoted at f' to the uprights C C. Short links f^2 connect the ends of these levers with arms from vertically-slidable rack members G G, moving in guideways in the uprights C C. As shown, the rack-teeth are somewhat narrow and engage with the teeth of a wide pinion H, which is full cut at this end, but mutilated at the opposite end. The teeth of the mutilated section are adapted to engage with the teeth of a short rack i on a horizontally-slidable member I, which is guided by a keeper i' and bearing i^2 on the upright C and carries a vertical bar i^3 , engaging with a slotted lug or bearing d' on the bar D. A connecting-link J is pivotally attached at one end, j , to the vertically-sliding rack member G and at the opposite end, j' , with the bar D and is of sufficient length so that it projects diagonally upward from its bearing on the member G when the load is in position, and thereby securely clamps the load between the bars.

The operation of the truck is as follows: The handle is raised, which lowers the sliding racks and allows the bars D to descend, and simultaneously the mutilated gears engage their racks and draw the bars apart. The truck is then pushed into position to lift a pile of boards and the handle pressed down. This causes the sliding racks to raise and revolve the gear, which forces the horizontal members I inwardly until the mutilated portion of the gear comes into engagement. The bars D D are now against the pile of boards and the hooks d in engagement with the bottom one. A further lowering of the handle forces the links J J upward and raises the bars D D and the load. When the handle is pressed to its lowest point, it engages a convenient snap hook or catch k on the frame A, and the load is ready to be pushed about. Guards l are secured to the inner side of the frame to prevent the load from sliding. If the load is of considerable weight, it is desirable to have a longer leverage than given by the handle, as shown, and at the same time not increase the width of the truck. This is accomplished by a removable or piv-

oted extension or handle *m*. (Shown in detail in Figs. 6 and 7.) The handle *m* is swung out, pressed down, and then folded back into position, as shown.

5 While I have shown hooks on the lifting-bars to engage the load, it is readily seen that these may be dispensed with in many cases and the bars ridged or corrugated to insure engagement therewith.

10 Other changes will readily suggest themselves as coming within the scope of my invention, which I do not wish to limit to the exact construction shown; but

15 What I claim, and desire to secure by Letters Patent, is—

1. In a truck, the combination of a frame, a lever pivoted to said frame, a pair of bars or clamps adapted to engage the load and means operated by said lever for automatically projecting the bars forward to engage the load and raising said bars after engagement with the load.

2. In a truck the combination of a rectan-

gular bed-frame open at one side, standards on said frame, vertically-slidable rack members in said standards, levers pivoted to said standards and connected by links to said sliding members, pinions mounted on said standards and engaging said racks, horizontally-slidable racks engaging the mutilated ends of said pinions, vertical rods rigidly secured to said racks, engaging with bearings on vertical lifting-bars, and links connecting said bars with the vertically-slidable members.

3. The combination in a lifting-truck of lifting-bars a vertically-slidable rack member, a pinion operated by said member, a rack-bar operated by a mutilated portion of said pinion to project the lifting-bars, and links connecting said lifting-bars and vertically-slidable member substantially as described.

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Witnesses:

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