(No Model.)

2 Sheets—Sheet 1.

E. WICKERSHAM.

HAND TRUCK.

No. 272,817. Patented Feb. 20, 1883.

Fig. 1.

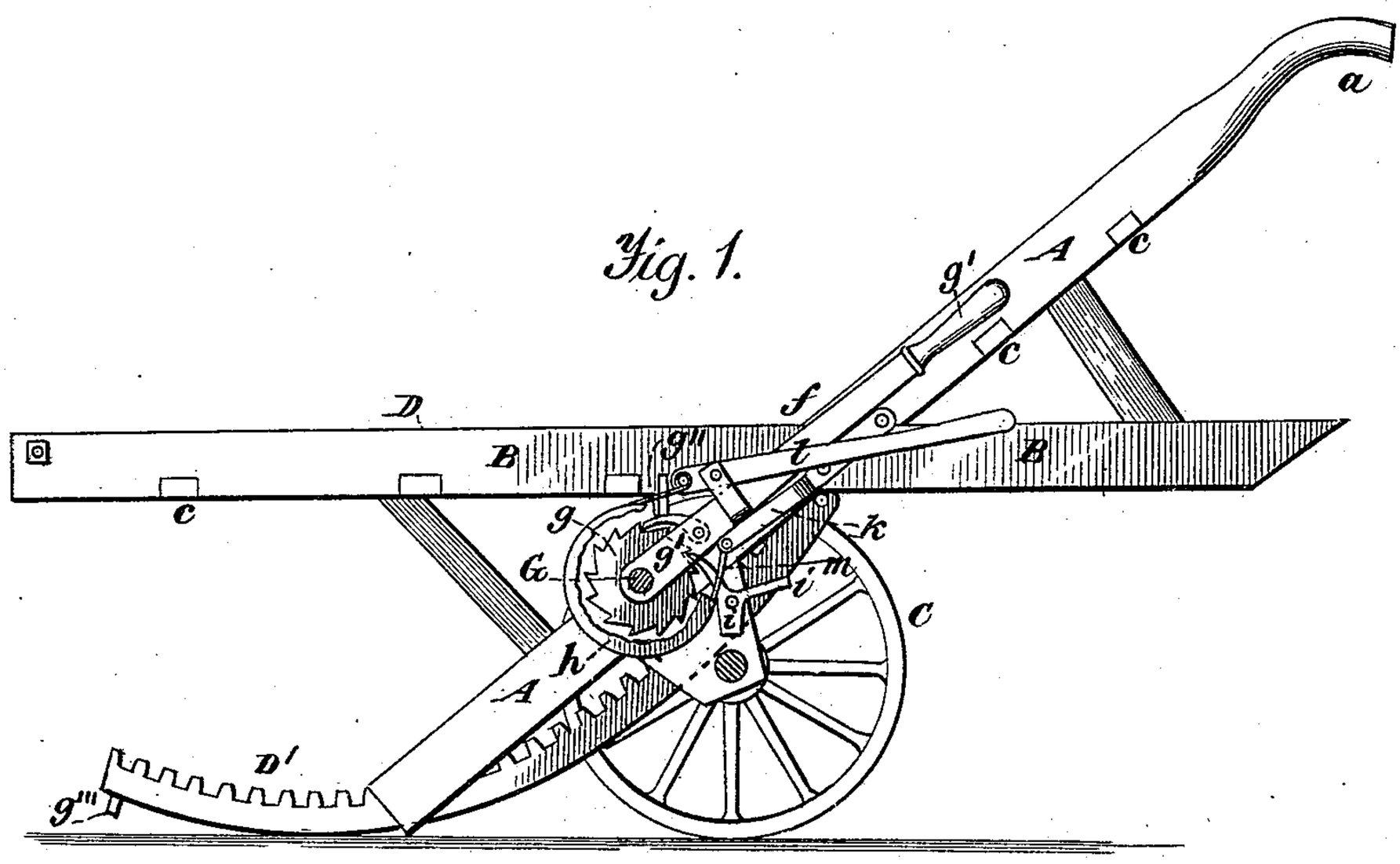
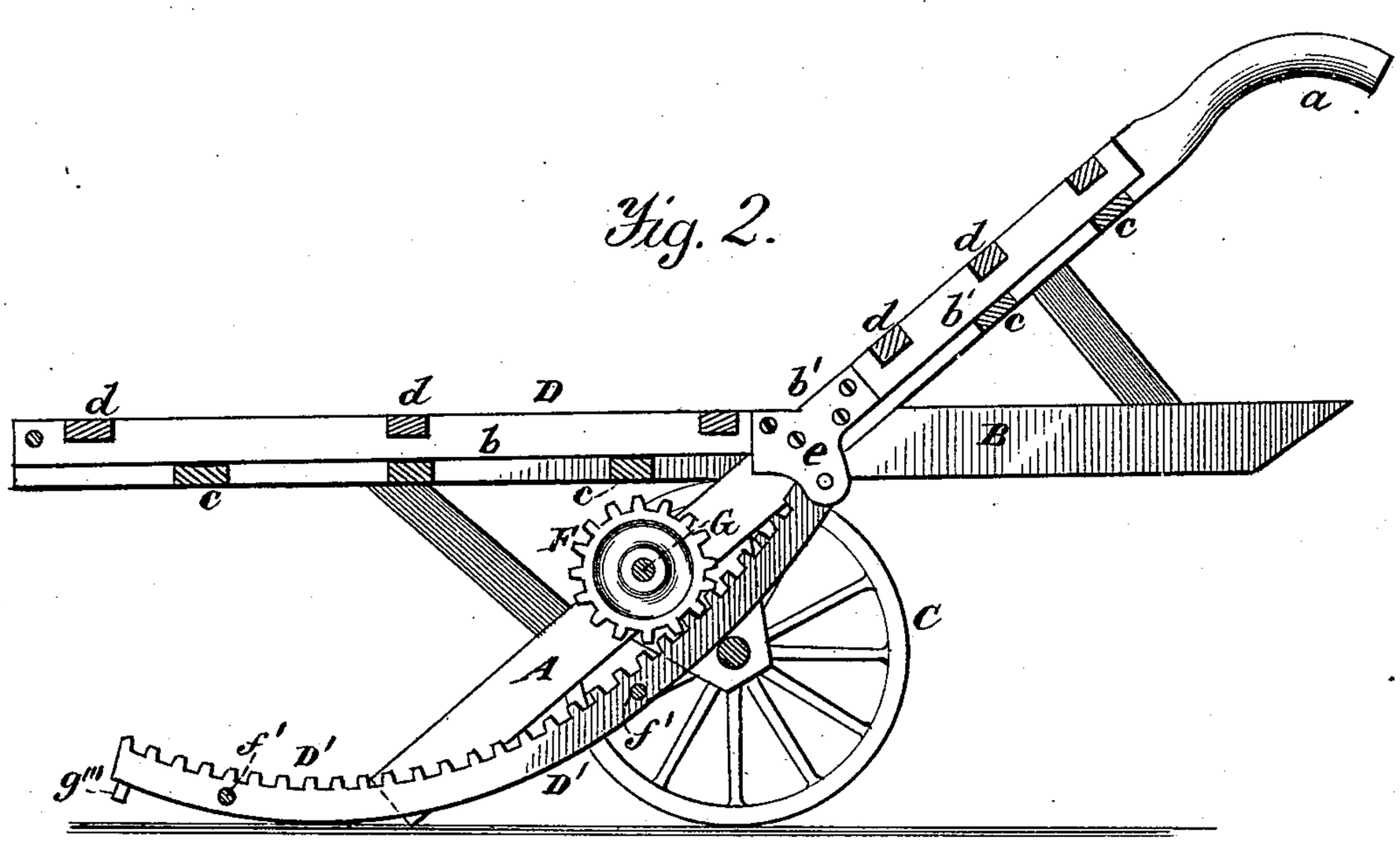


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

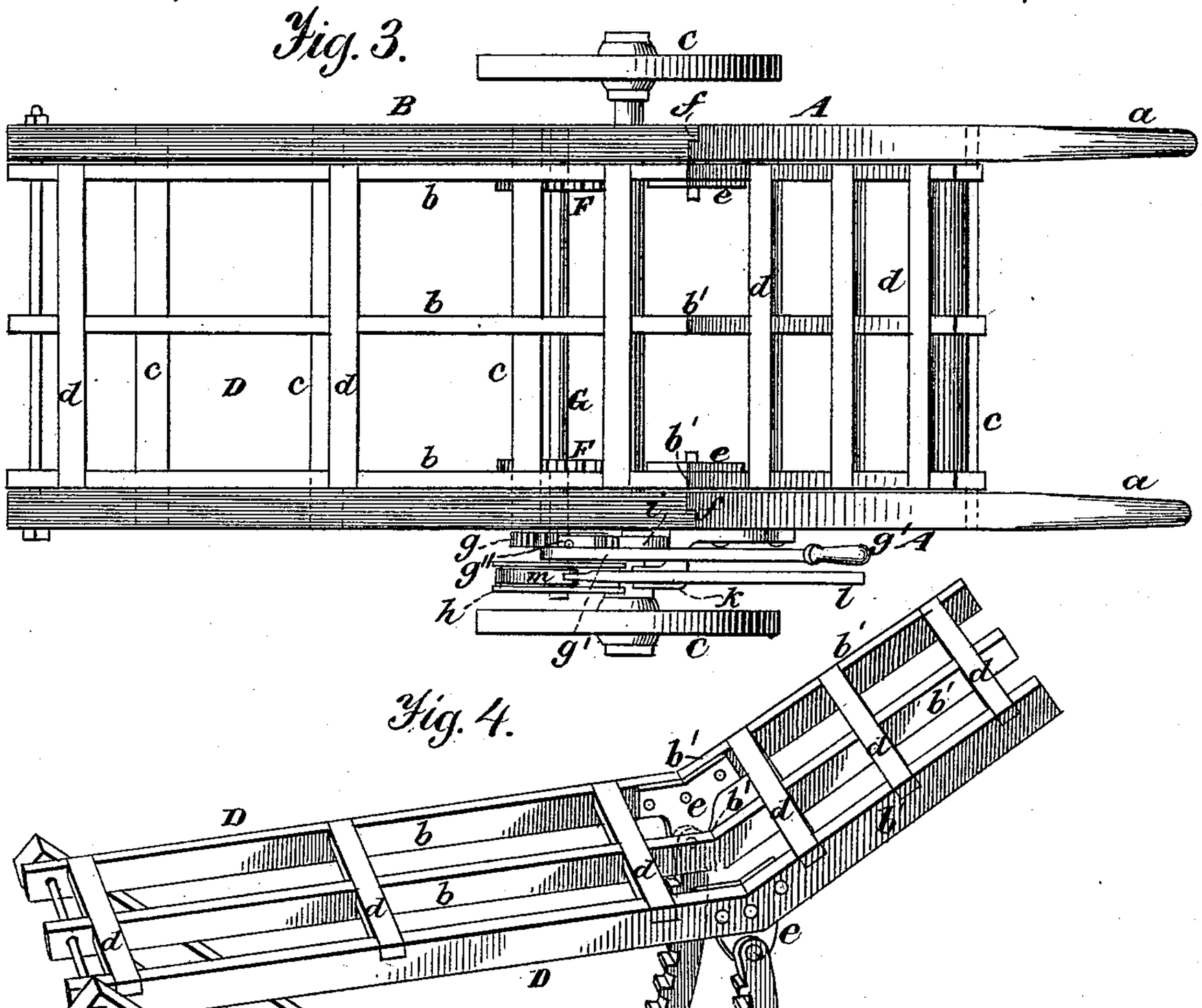
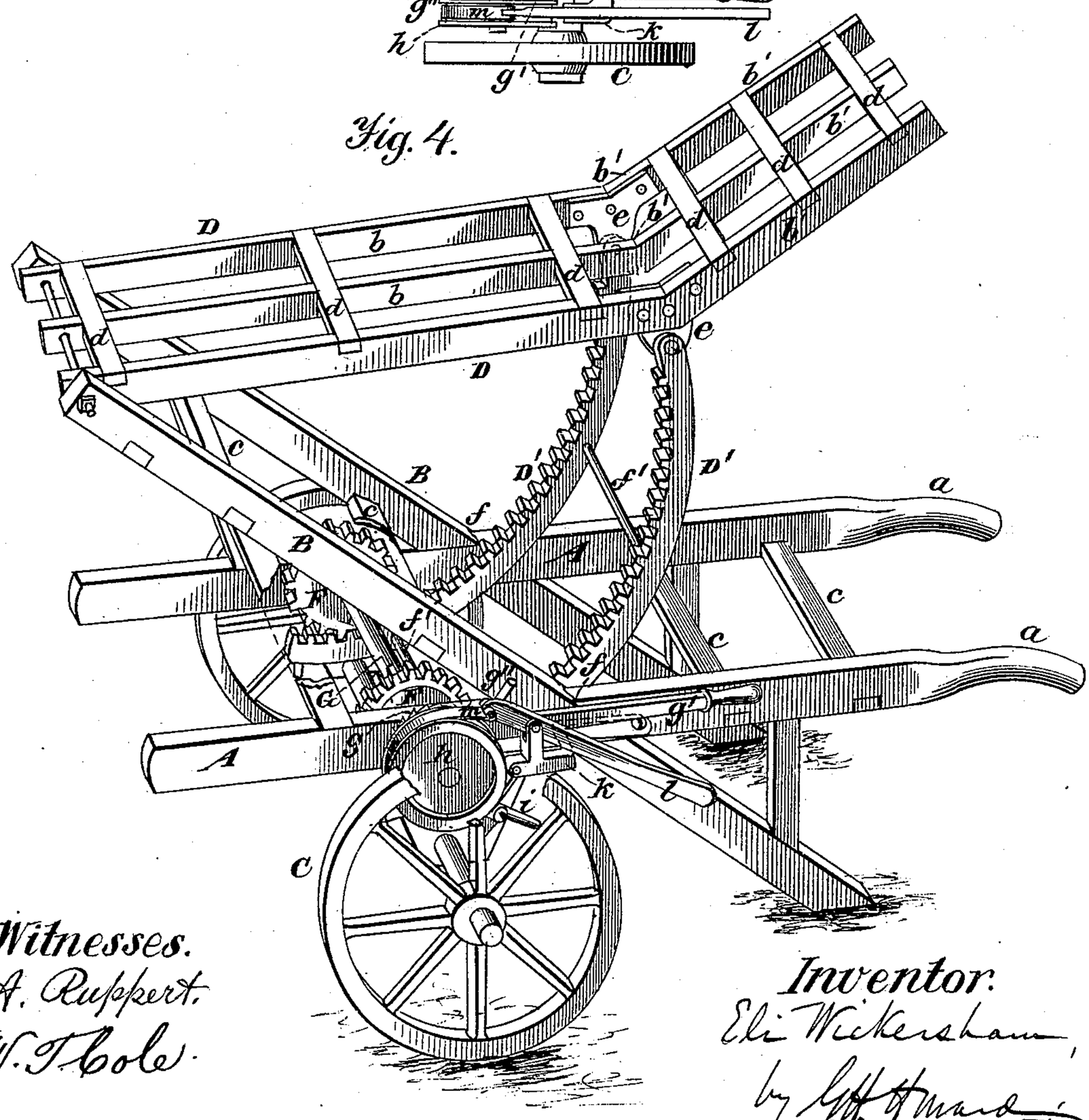


Fig. 4.



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UNITED STATES PATENT OFFICE.

ELI WICKERSHAM, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO GEORGE P. MERRILL, OF ST. LOUIS, MISSOURI.

HAND-TRUCK.

SPECIFICATION forming part of Letters Patent No. 272,817, dated February 20, 1883.

Application filed December 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, ELI WICKERSHAM, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hand-Trucks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in freight or baggage trucks, and has special reference to that class of such trucks which are used for moving baggage—as trunks, &c.—about railroad-depots and to and from baggage cars and rooms.

The invention consists in a construction whereby the baggage, after it has been placed upon the truck and wheeled to its destination—as, for instance, to a baggage-car—may be elevated to the plane of the floor of the car, or practically to such plane, thus saving the manual labor of lifting the trunks or other articles of baggage to such height. The same devices may also be used for loading and unloading freight from ships at wharves, and in any manner where the elevation of the freight to a height above that of the truck may be desired.

In the accompanying drawings, Figure 1 is a side view of my improved truck when standing to be loaded. Fig. 2 is a longitudinal section of the same. Fig. 3 is a top or plan view of the same. Fig. 4 is a perspective view, showing the truck elevated for unloading.

Similar letters of reference indicate similar parts in the respective figures.

A A are side frame-pieces, at one end of which is formed a handle, *a*. B B are also side frame-pieces. The parts A A and B B are united to intersect each other at an angle, as shown at *f*, and braced by transverse bars *c* to give the requisite strength to the frame.

C C are the truck-wheels.

D is the elevating platform or bed, which consists of bars *b b b*, which are continued at bars *b' b' b'* at an angle corresponding with that formed at the point of intersection, *f*, of the pieces A A and B B, so that when the truck is in condition to be loaded, as shown in Fig. 1, the top of the elevating-platform is flush with the top surfaces of the pieces A A and B B, respectively. The bars *b b b'*, forming the longitudinal parts of the elevating-platform, are tied or secured together by transverse bars *d*. At the inner side of each of the outer bars, *b b*, are placed metallic plates *e e* at the angle *f*, which serve to strengthen the connection at that joint. Pivoted to each of said plates *e* is a toothed circular rack or quadrant D' D', which racks are tied together by rods *f' f'*. Two pinions, F F—one to engage with each rack—are mounted upon a transverse shaft, G, having suitable bearings in the side pieces A A of the truck-frame. One end of the shaft extends beyond the outer surface of the frame, and is provided with a ratchet-wheel, *g*, keyed thereto, and a lever, *g'*, loosely moving upon the shaft, and provided with a pawl, *g''*, to engage the teeth of the ratchet-wheel. Secured also to the same end of the shaft is a flanged friction-wheel, *h*. A gravitating or self-acting catch, *i*, is pivoted to that part of the frame forming the bearing for the shaft of the truck-wheels. To the outside of the truck-frame is secured a metallic standard, *k*, which serves as the fulcrum of the lever *l*, to the short arm of which one end of the friction-strap *m* is attached, the other end being secured to the end of the standard.

Supposing that the truck is to be used for trunks or other baggage, it is placed in the position shown in Fig. 1, wherein the elevating-platform D is shown in its depressed condition, the side pieces B B standing practically in a horizontal line. The truck is maintained in this position by the forward ends of the side pieces A A resting on the floor, and also by the toothed racks or quadrants resting thereon. The trunks having been placed upon the platform D, the truck is wheeled to the baggage-car. The handles of the truck must now be lowered, so as to bring the ends of the pieces B B upon the floor, as shown in Fig. 4. The operator now causes the pawl *g''* to engage the teeth of the ratchet-wheel, and by moving

the lever g' backward and forward the ratchet-wheel is revolved, causing the pinions F F, through the medium of the toothed racks D′ D′, to elevate the platform D to the position shown in Fig. 4, in which it is supposed to be practically on the level of the floor of the baggage-car. The stops g''' at the ends of the toothed racks D′, by coming in contact with the axle of the truck-wheels, prevent the disengagement of the racks and pinions. The trunks can now be readily moved into the baggage-car. The gravitating catch i, by engagement with the ratchet-wheel, prevents the return of the platform. On the truck being unloaded, the catch i must be detached from the ratchet-wheel, as also the pawl g'' of the lever g', on which the platform will fall by its own weight to its former or depressed state. To check the sudden descent of the platform, the friction lever and band, which act in the ordinary manner, may be called into requisition.

It will be understood that for unloading cars the platform must first be elevated, the baggage or freight placed thereon, and the platform then lowered, the operation being the reverse of that described.

I claim as my invention—

1. In a baggage-truck or freight-elevator, the combination, with side pieces of the frame-work, of an elevating platform or bed pivoted to the forward ends of said side pieces, the construction being such that upon the elevation of the platform the rear ends of said side pieces shall rest upon the ground and brace or support said platform, substantially as set forth.

2. In a baggage-truck or freight-elevator, the combination, with side pieces of the frame-work, of an elevating platform or bed pivoted to the forward ends of said side pieces, and mechanism for elevating and depressing said platform and retaining it at a required height, the construction being such that upon the elevation of the platform the rear ends of the side pieces, to which it is pivoted, shall rest upon the ground and brace or support said platform, substantially as set forth.

3. The combination, in a baggage-truck or freight-elevator, of a frame-work and an elevating-platform pivoted to the front end thereof, circular toothed racks and pinions engaging the same, and means for revolving said pinions, substantially as set forth.

4. The combination, in a baggage truck or elevator, of a frame-work and an elevating platform or bed pivoted to the front end thereof, circular toothed racks, pinions, and a ratchet lever and pawl mechanism for elevating, depressing, and retaining the platform as may be desired, substantially as set forth.

5. The combination, in a baggage-truck or freight-elevator, of a frame-work, an elevating platform or bed pivoted to its front end, and means for elevating, depressing, and retaining said platform as may be desired, and for checking its descent, substantially as set forth.

6. In a baggage truck or elevator, the side frame-pieces, A A and B B, intersecting each other at an angle, as shown, combined with an elevating platform or bed pivoted at its forward end to the pieces B B, and adapted to lie flush with the upper surface of the frame-work, and conforming to the angles of said surface, substantially as set forth.

7. In a baggage truck or elevator, side frames tied together by transverse bars placed below their upper surface, combined with an elevating platform or bed pivoted to the front end of the frames and adapted to seat or rest upon said transverse bars of the frames flush with their upper surface, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ELI WICKERSHAM.

Witnesses:
I. E. POOL,
MINNIE WEY.