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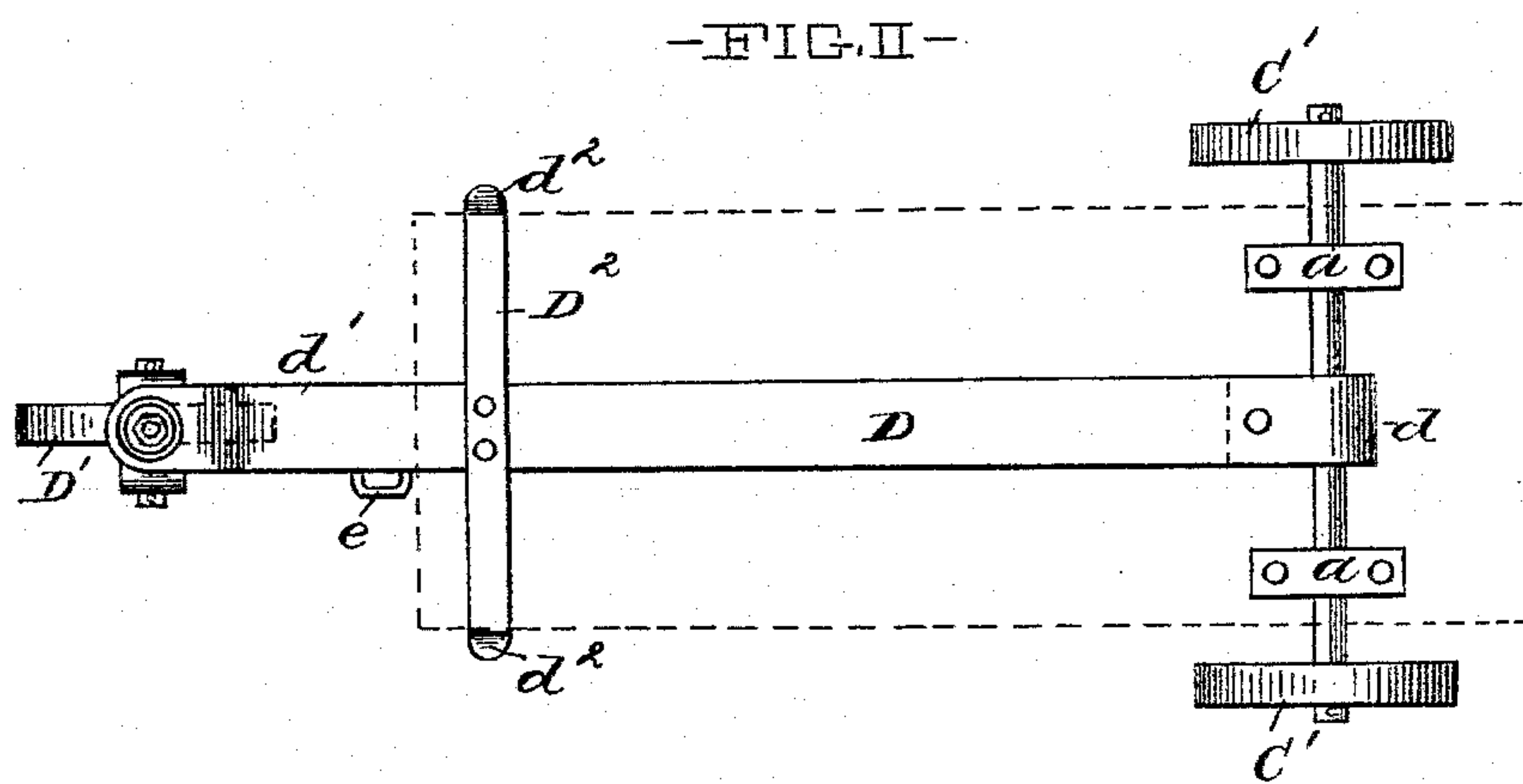
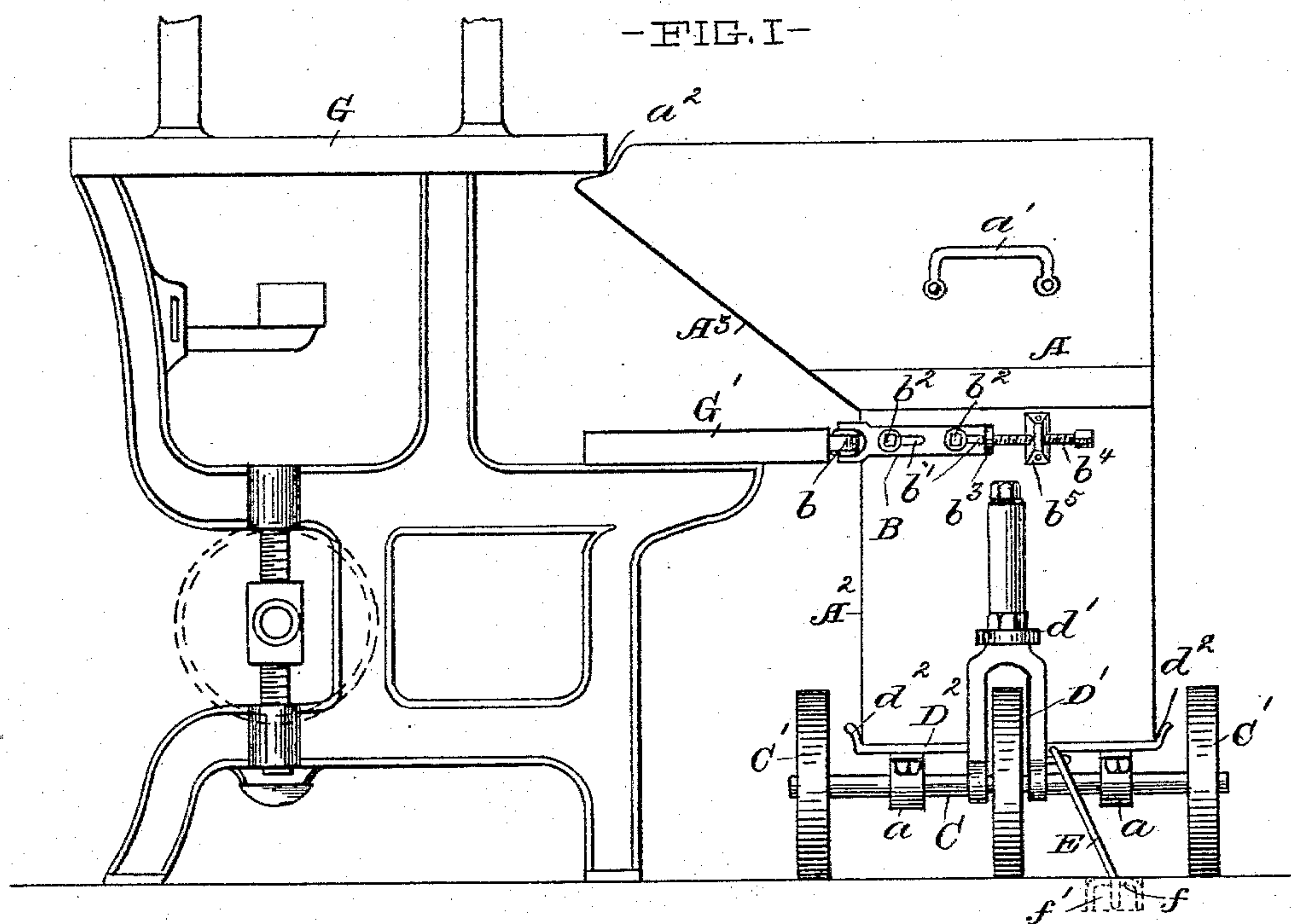
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J. A. BIDWELL.

CAR FOR COLLECTING AND CONVEYING TURNINGS.

No. 533,699.

Patented Feb. 5, 1895.



Witnesses,

J. C. Turner
J. H. Fecher

Inventor,

J. A. Bidwell
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(No Model.)

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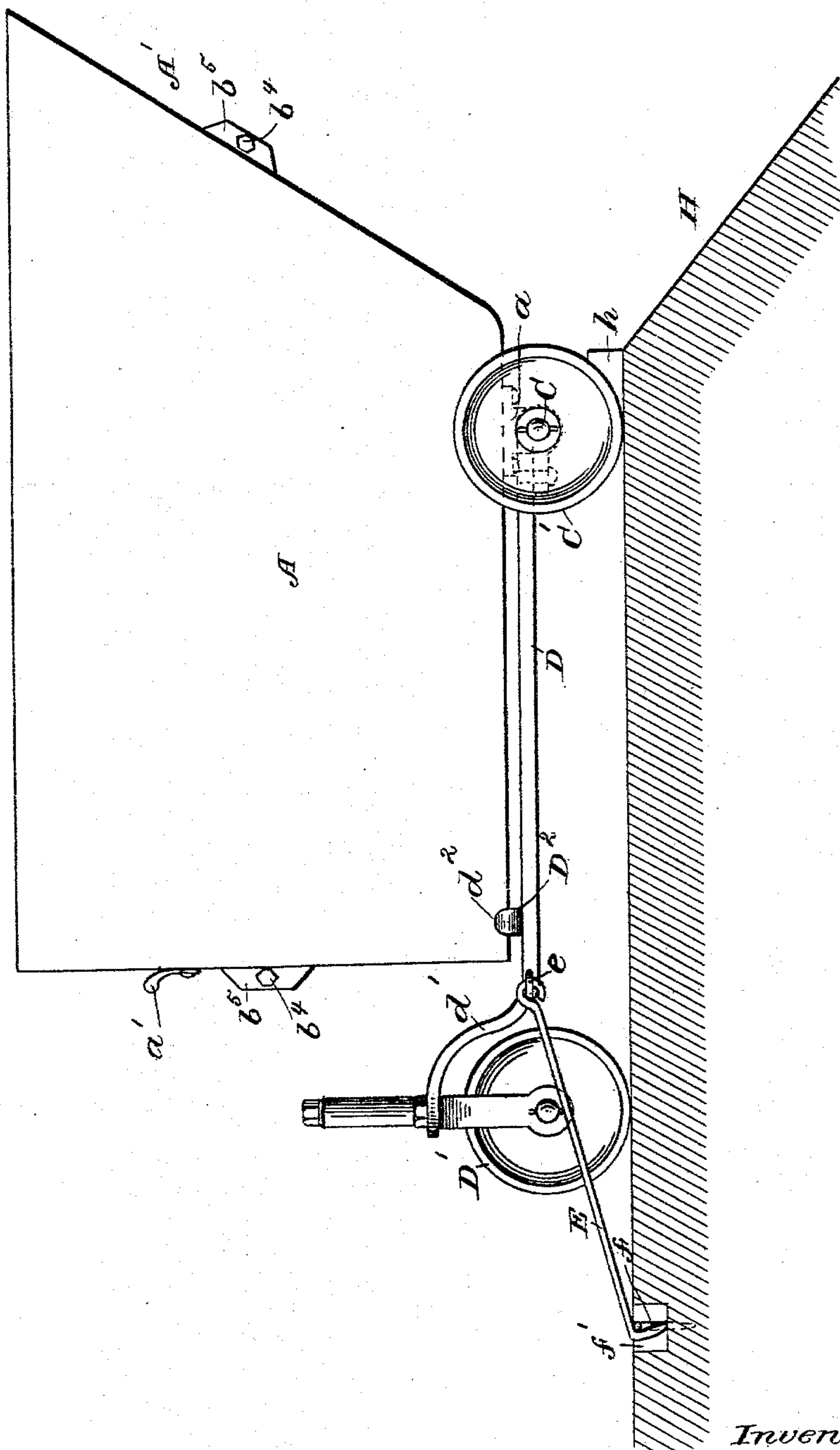
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—FIG. III—



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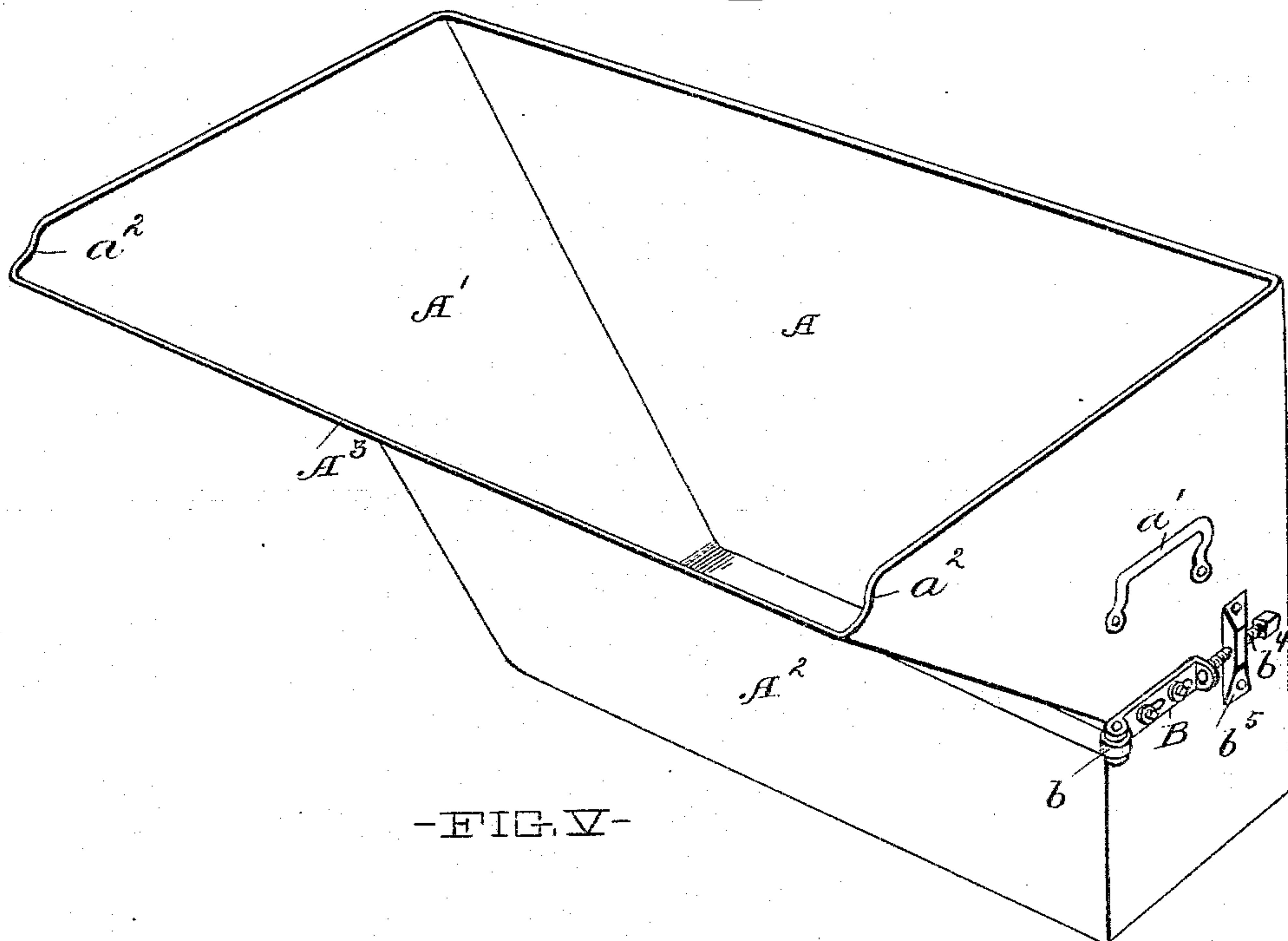
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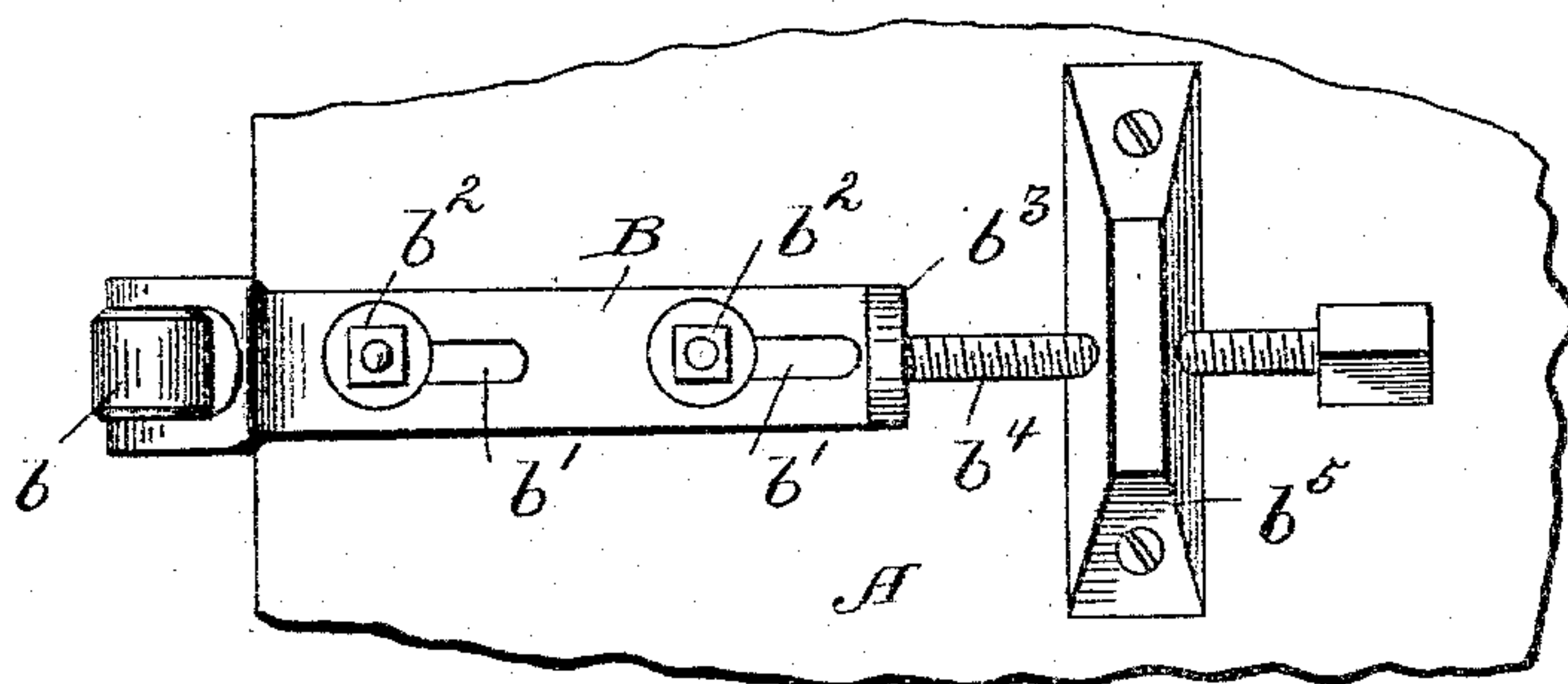
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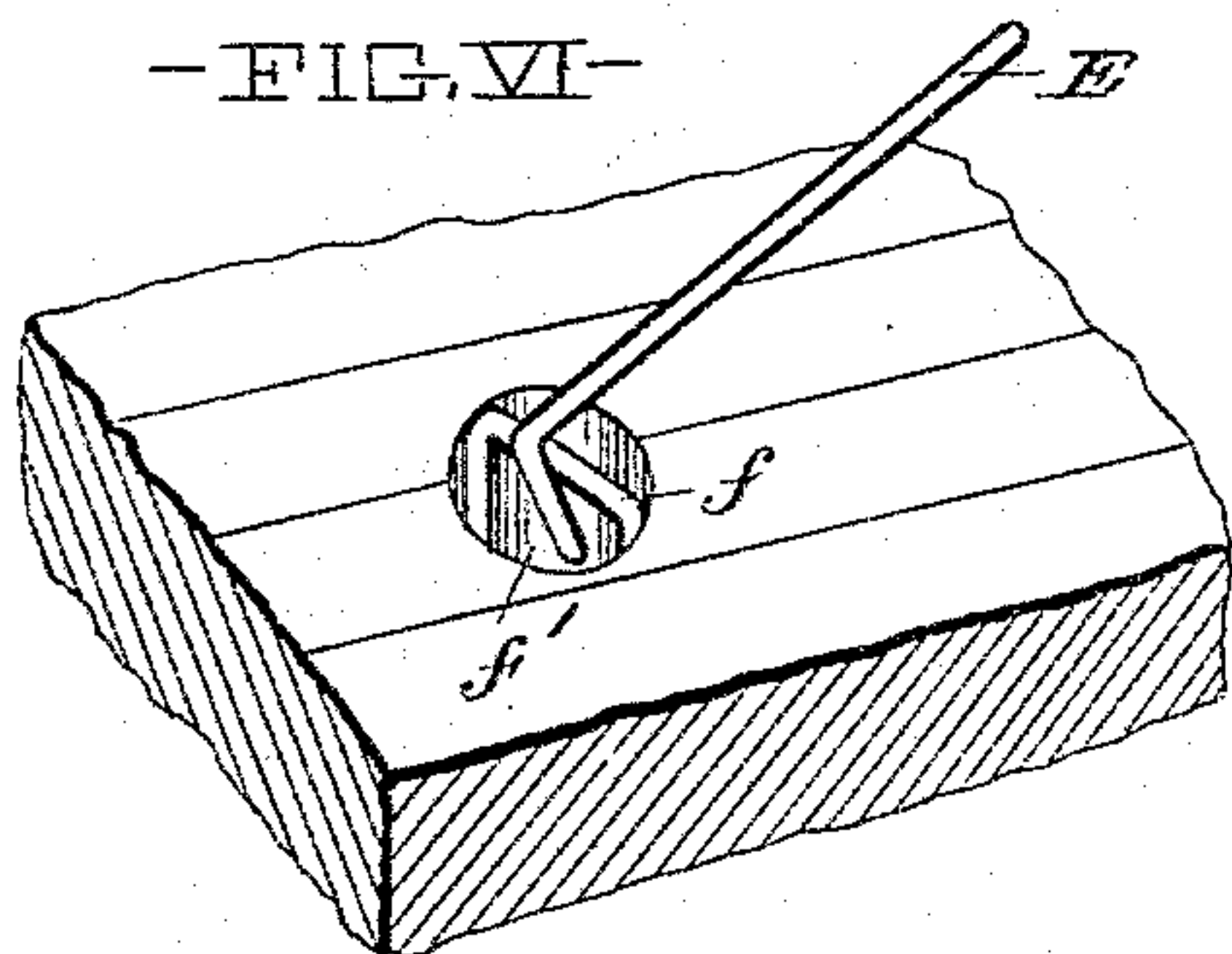
-FIG. IV-



-FIG. V-



-FIG. VI-



Witnesses,

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UNITED STATES PATENT OFFICE.

JASON A. BIDWELL, OF CLEVELAND, OHIO.

CAR FOR COLLECTING AND CONVEYING TURNINGS.

SPECIFICATION forming part of Letters Patent No. 533,699, dated February 5, 1895.

Application filed December 3, 1894. Serial No. 530,686. (No model.)

To all whom it may concern:

Be it known that I, JASON A. BIDWELL, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Cars for Collecting and Conveying the Turnings from Screw-Making Machines, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The annexed drawings and the following description set forth in detail, one mechanical form embodying the invention; such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawings—Figure I represents an end view of my improved car for collecting and conveying the turnings from screw making machines, illustrating the car in position at the screw making machine, the frame of which is illustrated in end view; Fig. II, a top plan view of the truck of the car, the box of the car being indicated by dotted lines; Fig. III, a side view of the car; Fig. IV, a perspective view of the box of the car; Fig. V, a detail view of the adjustable gage upon the car box, and Fig. VI, a perspective detail view of the end of the retaining hook and the catch in the floor for said hook.

For the purpose of rendering the object and advantages of my improved car more intelligible, I will first explain the conditions which have existed previously to my invention of the same.

An attachment to screw making machines has been invented and constructed by me, by means of which the turnings are delivered at one place upon the table of the machine, separate from the finished screws, which are delivered at another place. While the screw making machines are in operation, it becomes necessary at intervals to remove the turnings as they accumulate upon the table of the machine, and heretofore it has been customary to place a box upon a bench, below one edge of the machine table, and to sweep the turnings into such box, which was then removed

and emptied. Such boxes form a considerable item in the expense of operating a large number of screw making machines, and the attendance necessary to the filling and removal of such boxes, has formed another considerable item in the expense, as a number of attendants would be required in a large factory to remove the turnings.

By the employment of my improved car, the boxes are dispensed with, and one attendant with the car can with ease perform the work of a considerable number of attendants with boxes. The car is provided with a box, A, having an outwardly inclined forward end, A', for convenience in dumping the contents out of the car box, when the latter is tilted. One side of the box is vertical or substantially so, and the other side is vertical or substantially so, at about the lower half A², while the upper portion A³, of the side is flared or inclined to form a chute which may extend to beneath the edge of the machine table, so that the turnings may slide down the chute into the car, when swept from off the table. The upper corners, a², of the ends of the car box are cut off, so that the upper edge of the chute may come beneath the edge of the table and the ends of the box project to confine the turnings.

Brackets, B, have rollers, b, journaled in their outer ends, and have longitudinal slots, b', through which pass screw bolts, b², which thus serve to adjustably secure the brackets to the ends of the box. The inner ends of the brackets are formed with lips, b³, against which the ends of adjusting screws, b⁴, bear, which screws are threaded through lugs, b⁵, upon the ends of the box.

The brackets may be adjusted by means of the adjusting screws, and may be secured in their adjusted position by means of the screw bolts, so as to bring the rollers to project the desired distance from the side of the car box.

Journal bearings, a, are secured to the bottom of the car box, near the forward end, and turn upon an axle, C, having wheels, C', journaled upon its ends.

A reach, D, has a loop, d, embracing the middle of the axle, and has an upwardly and rearwardly curved rear end, d', formed with a vertical bearing for a swiveled caster wheel,

D'. A cross bar, D², is secured upon the reach, near the curved rear end of the same, and has lips, d², at its ends, so that the bottom of the box may rest upon said cross bar, between the lips. A handle, a', is secured upon the rear end of the box, so that said end of the box may be lifted by said handle in dumping the car. An eye, e, is provided at the rear end of the reach, and one hooked end of a hook, E, may engage said eye, while the other end of the hook may engage the cross bar of a staple, f, secured within and across a recess, f', in the floor, near the place where the car is dumped.

In practice, the car is run along the row of screw making machines, and the rollers are so adjusted by their brackets, that the edge of the chute may project beneath the table G, of the screw making machine, when the rollers bear against the edge of the lower table G', of the machine. The table G is the table upon which the turnings and screws are delivered from the machine, in separate piles, and the table G' is the table upon which the boxes were placed into which the turnings were drawn, previously to the employment of my car, and upon which the boxes for the finished screws may be placed.

When the car arrives opposite a machine, it may be stopped, and the pile of turnings may be swept into the chute of the car, and along the entire row of machines. The two tables of each machine in one row have preferably their edges at the same relative distance, so that one adjustment of the rollers upon the car may be sufficient for the entire row. When the car is full of turnings, it is pushed to the dumping place, which is preferably an inclined chute H. Chocks, h, are provided at the edge of the incline, so that the front wheels of the car may be brought to bear against the chocks, and the car be stopped at the proper place. When the car is stopped at the chocks, the hook may be hooked into the eye upon the reach and over the cross bar of the staple in the recess of the floor, so that the rear end of the box may be raised, and the load of turnings dumped out at the inclined forward end, down the inclined chute, while the rear end of the truck of the car may be retained in position without tilting. The car box will swing upon the forward axle, and may be tilted back upon the cross bar of the reach, when it has been emptied, when the car may again be drawn back to a row of machines to again be loaded.

While this car is especially devised for a special purpose, and is particularly adapted for such purpose, as described; yet, it is evident, that the car may be used for any other purpose for which it may be found suitable.

Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism thus disclosed, provided the principles of construc-

tion set forth respectively in the following claims are employed.

I therefore particularly point out and distinctly claim as my invention—

1. A car for collecting and conveying the turnings from screw making machines, having a box formed with an outwardly flared side which forms a chute adapted to have its edge project under the edge of the table of the screw making machine upon which the turnings are delivered, substantially as set forth.

2. A car for collecting and conveying the turnings from screw making machines, having a box formed with an outwardly flared side and with a forwardly inclined end,—said side forming a chute the edge of which may extend under the edge of the table of the screw making machine, and said end admitting of the contents of the box being emptied by tilting the box, substantially as set forth.

3. A car for collecting and conveying the turnings from screw making machines, said car having a box formed with one vertical side and one vertical end, with one side having the lower portion vertical and the upper portion outwardly flared to form a chute adapted to project under the edge of the table of the screw making machine, and with one end forwardly inclined to admit of the contents of the box being emptied by tilting the box, substantially as set forth.

4. A car for collecting and conveying the turnings from screw making machines, said car consisting of a wheeled truck, a box secured upon said truck to be tilted and having an outwardly flared side adapted to project under the table of the screw making machine upon which the turnings are delivered, and a gage upon said side of the box and adapted to bear against the edge of the lower table of the screw machine, substantially as set forth.

5. In a car for collecting and conveying the turnings from screw making machines, the combination of a wheeled truck, a box upon said truck and constructed to be tilted, and a gage adjustably secured to project at one side of the box to bear against the edge of the table of the screw machine, substantially as set forth.

6. In a car for collecting and conveying the turnings from screw making machines, the combination of a wheeled truck, a box upon said truck, slotted brackets having rollers at their ends, screw bolts through the slots in the brackets and securing the latter to the ends of the box, lugs upon the ends of the box, and screws through said lugs and bearing against the inner ends of the brackets, substantially as set forth.

7. In a car for collecting and conveying turnings from screw making machines, the combination of a truck having a transverse axle provided with wheels and a swiveled caster wheel at the opposite end, and a box

5 formed with a flared chute side and an inclined end, and provided with journal bearings upon its bottom, near the inclined end, which bearings turn upon the axle of the truck, substantially as set forth.

10 8. In a car for collecting and conveying turnings from screw making machines, the combination of a truck having a transverse axle provided with wheels, a cross bar, and a swiveled caster wheel; with a box formed with a vertical side and rear end, with a side having a vertical lower portion and a later-

ally flared upper portion, and with an outwardly inclined end, and provided with journal bearings upon its bottom, near the inclined end, which bearings turn upon the axle of the truck, substantially as set forth. 15

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 27th day of November, A. D. 1894.

JASON A. BIDWELL.

Witnesses:

J. B. FAY,

DAVID B. DAVIES.