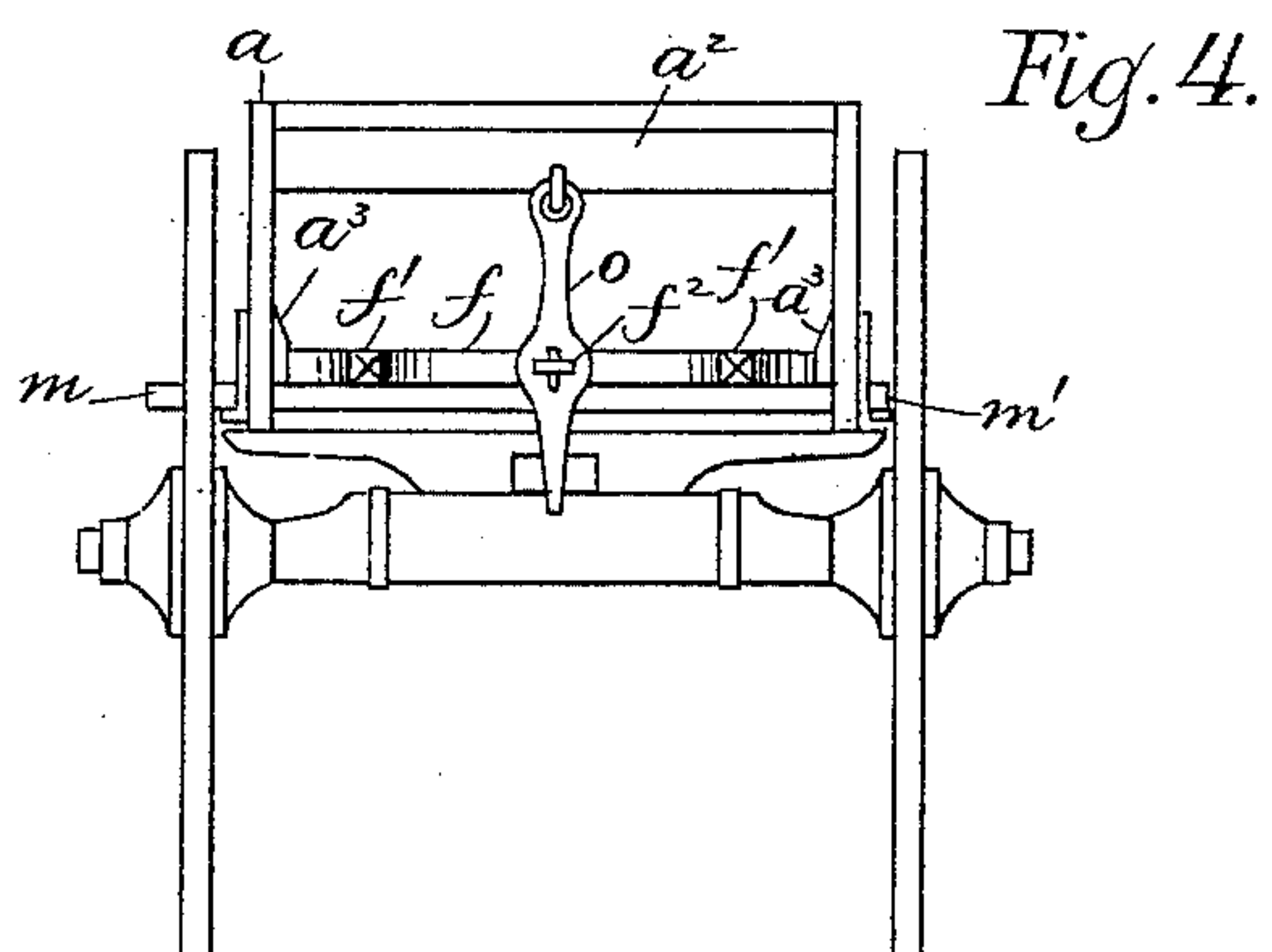
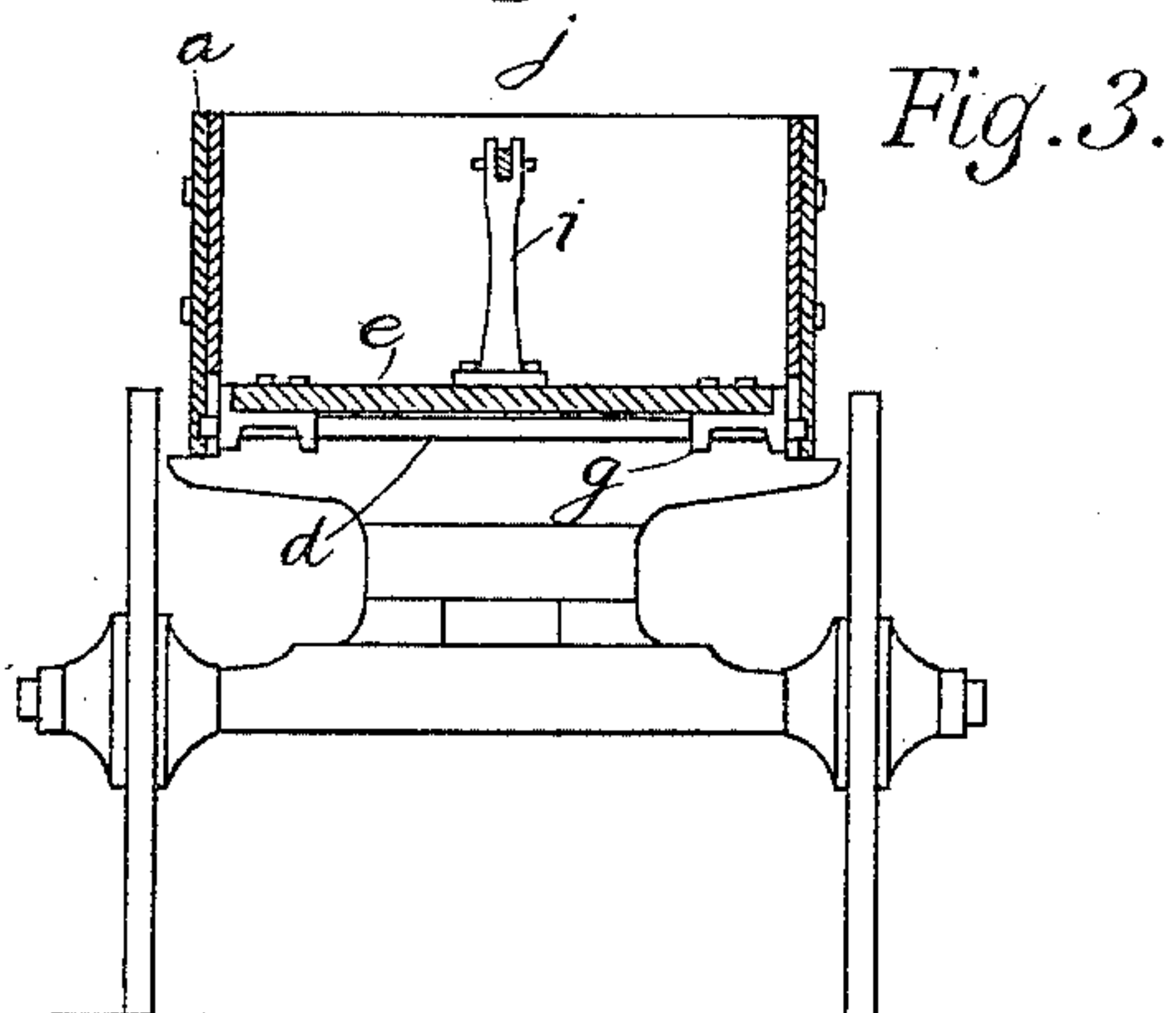
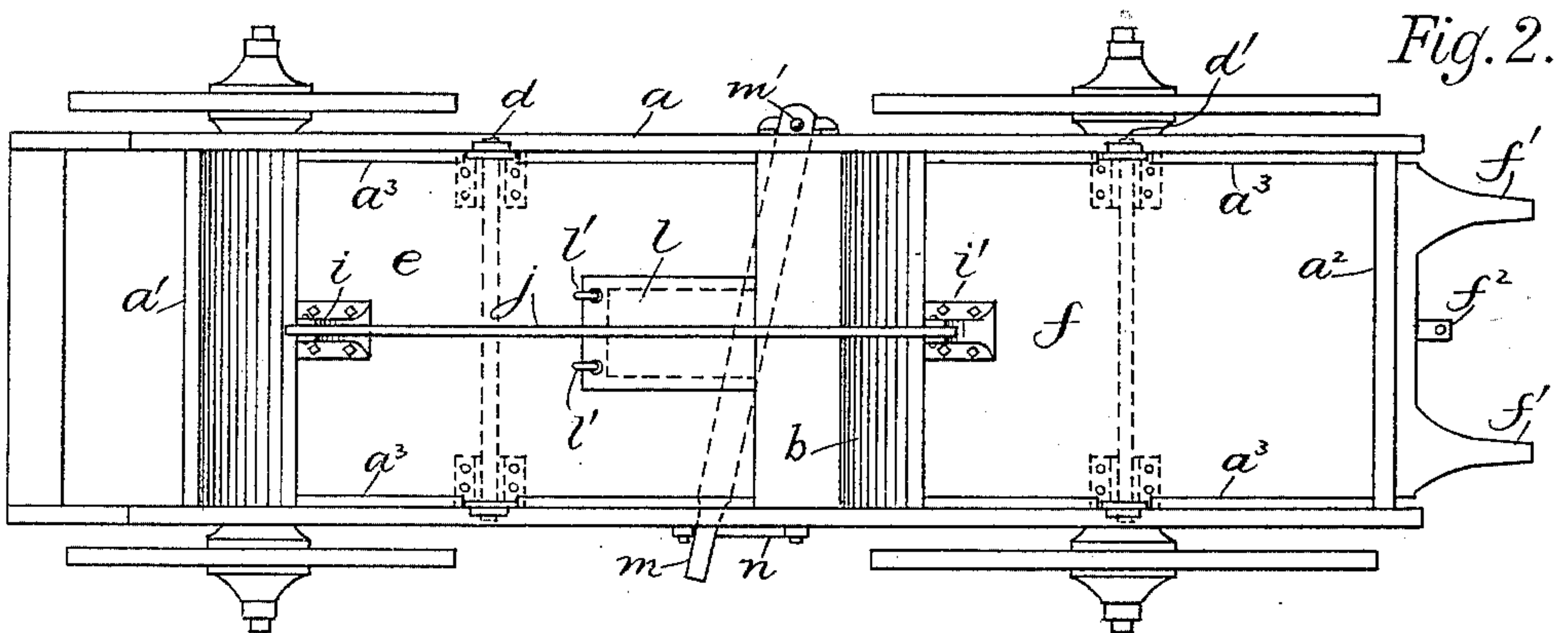
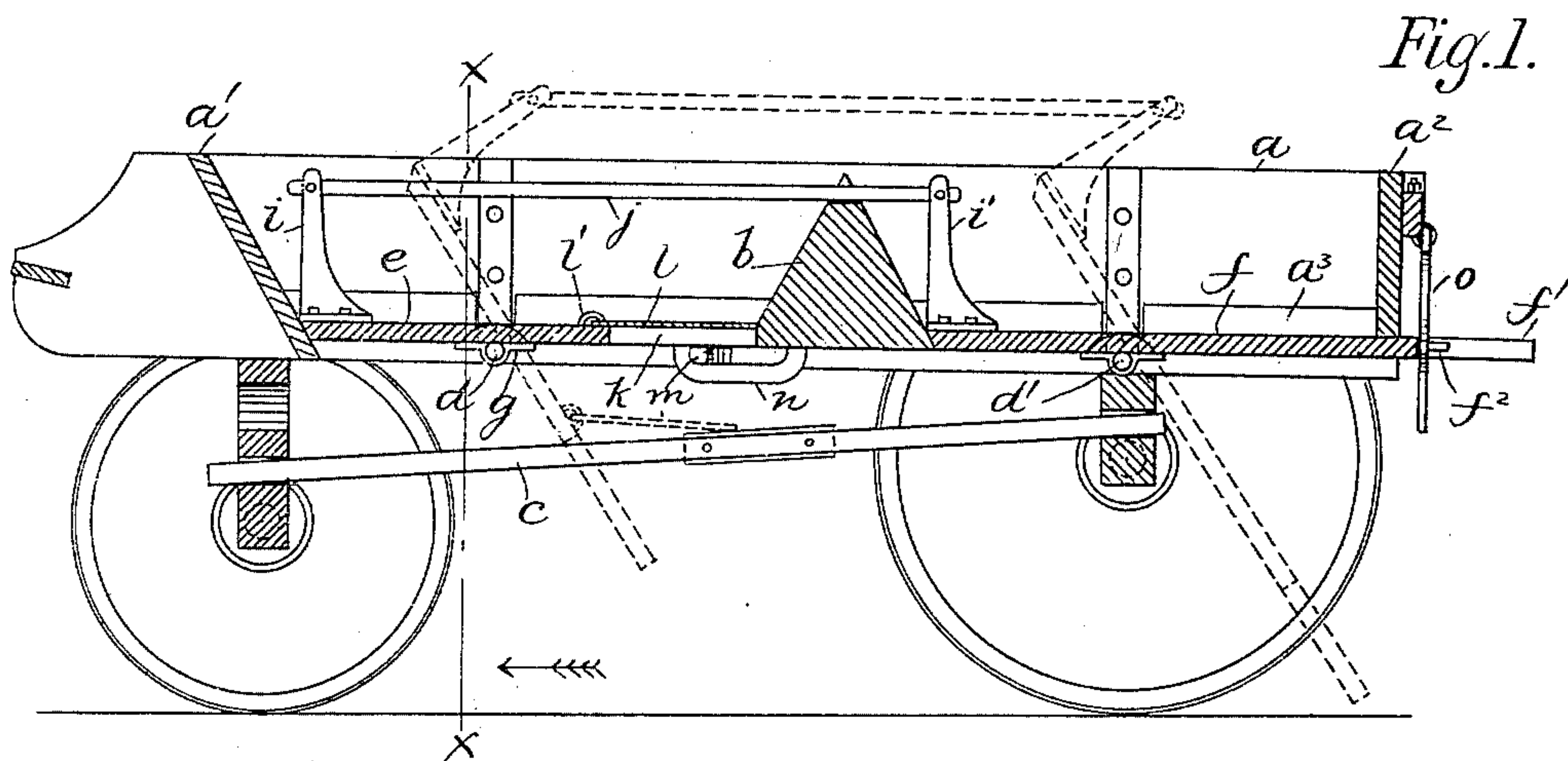


J. BLUM.
DUMPING WAGON.

No. 450,822.

Patented Apr. 21, 1891.



Witnesses:

J. Halpenny
George W. Underwood

Inventor:

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By Bradley & Fletcher
his Atty.

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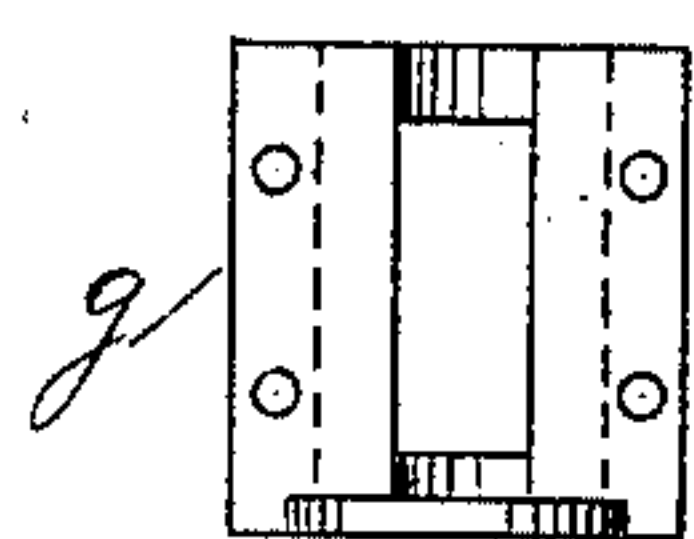


Fig. 5.

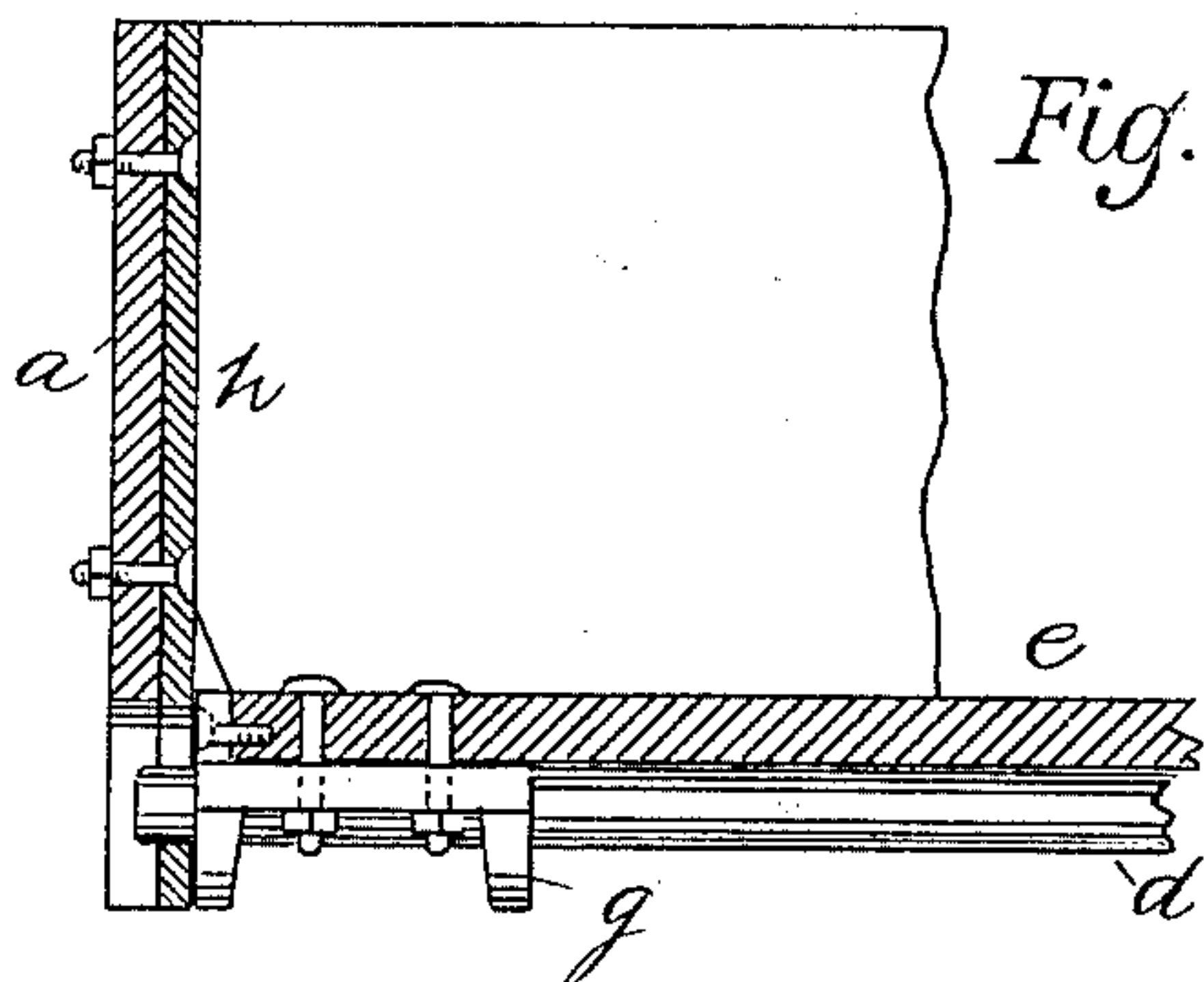
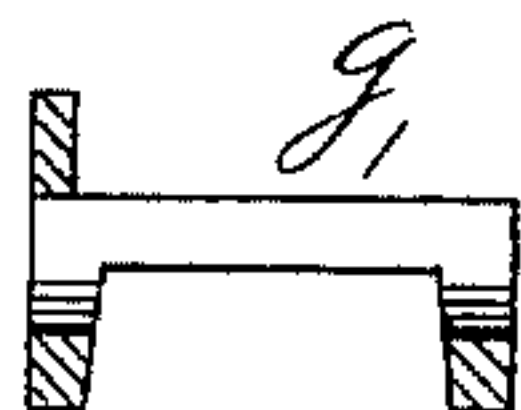


Fig. 6.

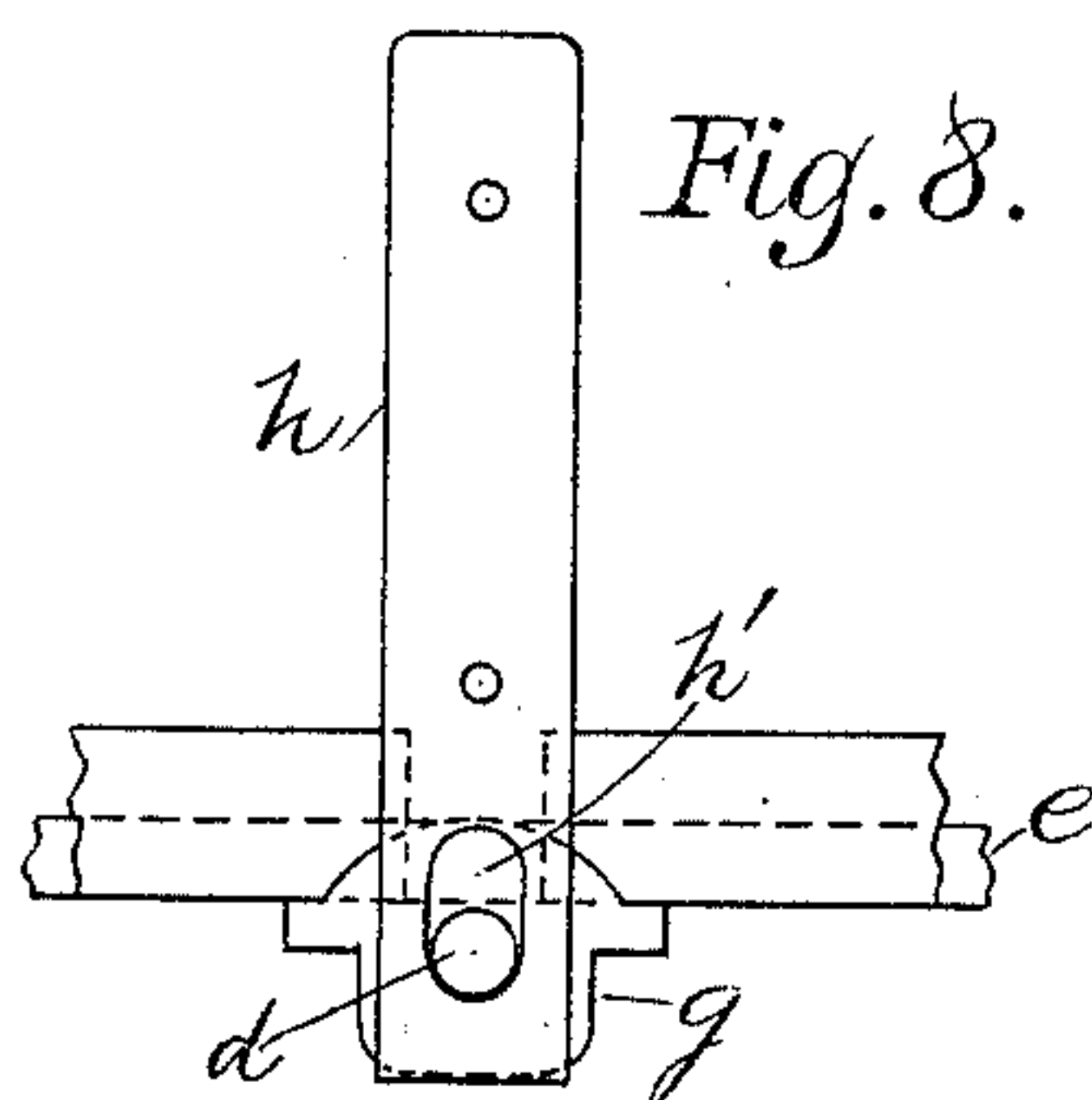


Fig. 8.

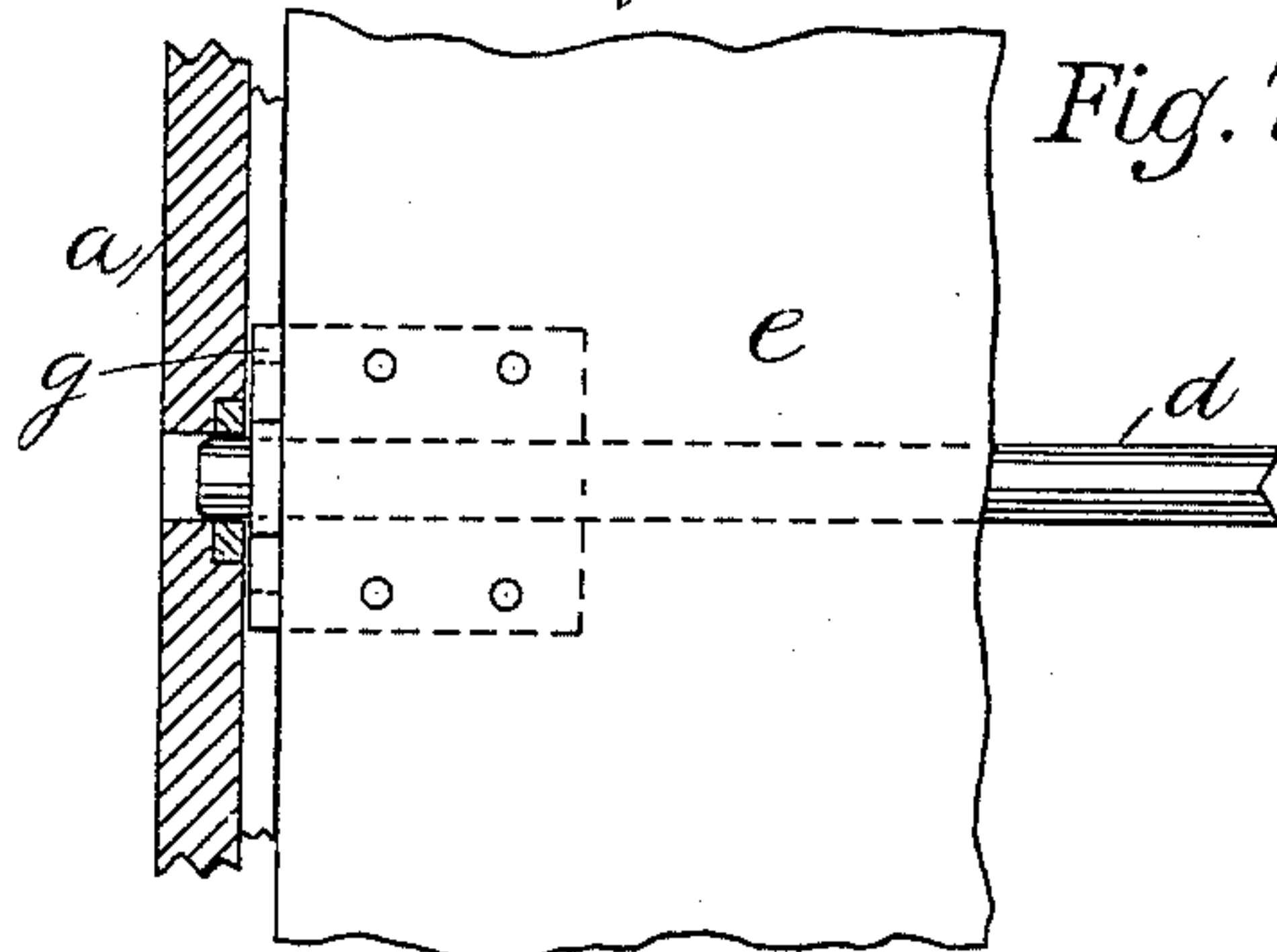


Fig. 7.

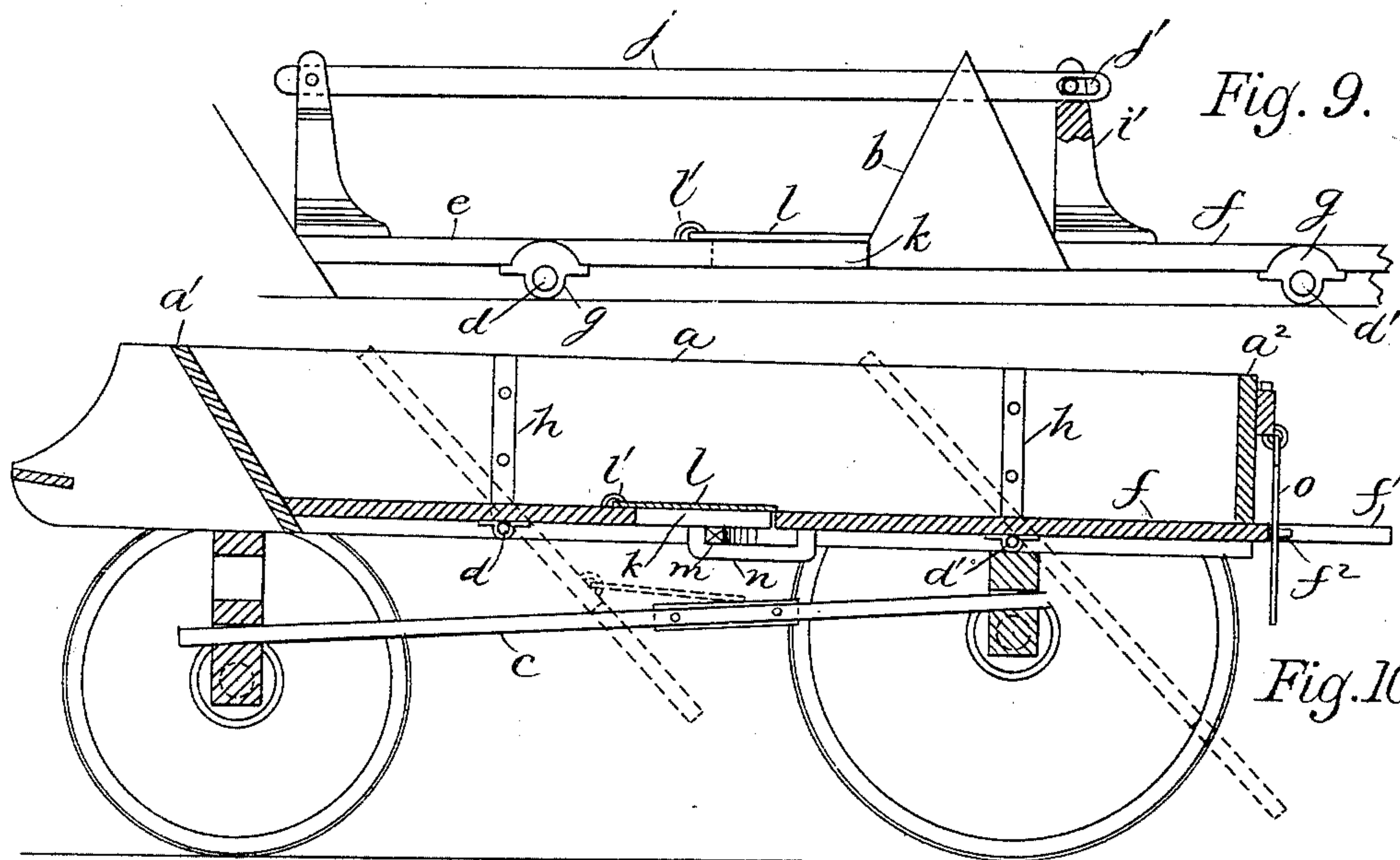


Fig. 9.

Fig. 10.

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UNITED STATES PATENT OFFICE.

JOSEPH BLUM, OF CHICAGO, ILLINOIS.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 450,822, dated April 21, 1891.

Application filed August 5, 1890. Serial No. 361,038. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BLUM, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Dumping-Wagons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters
10 of reference in the different figures indicate like parts.

The object of my invention is to so construct a sectional dumping-box for wagons that it may be applied to any wagon and the
15 bottom sections tilted without binding upon the sides when the body of the wagon is twisted or cramped.

A further object is to so connect the bottom sections that they may be tilted in unison. Moreover, I desire to initiate the dumping movement of one of the sections by the partial movement of that of the other, which objects I accomplish in the manner hereinafter more particularly described and claimed.

25 Figure 1 of the drawings is a longitudinal sectional view of a wagon embodying the features of my improvement. Fig. 2 is a plan view of the same. Fig. 3 is a transverse sectional view taken upon the line $x x$, Fig. 1, viewed in the direction of the arrow there shown. Fig. 4 is a rear end view. Fig. 5 shows detail views in varying positions of the plate, by which the pivotal bar is secured to the dumping-section. Fig. 6 is a vertical
35 sectional view in detail of a portion of the box and dumping bottom section, showing the manner of attaching said plate. Fig. 7 is a like view in plan. Fig. 8 is a detached view in detail of a portion of the pivoted bottom section, showing its connection with the strap attached to the side of the box. Fig. 9 is a side view, in detail, of a portion of the dumping-sections and the bar connection between the two, showing a modification of said invention; and Fig. 10 is a central longitudinal
45 vertical sectional view of a dumping-wagon, showing a modified construction.

Referring to said drawings, a represents the box, which may be constructed, in the
50 manner shown, with a slanting front end-board a' , a middle partition b , arranged to slope

toward the front and rear, respectively, and a rear end-board a^2 . The box described is supported upon the usual bolsters of a wagon-body, which is provided with an ordinary
55 reach c .

Pivoted upon cross bars or shafts $d d'$, located between the partition b and the front and rear end-boards, respectively, are bottom sections $e f$, which rest normally in a horizontal position, as shown in Fig. 1, and are free to tilt in the manner indicated in dotted lines in Fig. 1, when not locked in a horizontal position, as hereinafter stated. Said sections are pivoted somewhat forward of the
60 middle, so that the preponderance of the load upon the rear end may aid in the act of dumping.

The bars $d d'$ are attached to the respective bottom sections by means of metallic
70 plates or castings g , bolted beneath said sections, as clearly shown, and the ends of said bars rest loosely in vertically-arranged slots h' , Fig. 8, formed in straps h , rigidly bolted to the inside of the box. This arrangement permits of more or less play and relieves the box from undue strain when the wagon is being driven over uneven surfaces. Beveled cleats
75 α^3 , Figs. 1, 2, and 4, are attached to the sides α , which enables the sections to be tilted without binding upon the sides. 80

Rigid vertical standards $i i'$ are attached to the front ends of the bottom sections $e f$, said standards being connected with each other by means of a bar j , the rear end of
85 which is preferably provided with a slot j' , Fig. 9, for the purpose hereinafter stated. This bar enables the two sections to be raised or lowered in unison.

In order to permit the forward section e to
90 be inclined to the desired extent without contact with the reach c , I form a longitudinal opening k , extending from the rear of said section forward a sufficient distance to permit the section to be tilted sufficiently to
95 dump the load. This opening, it is obvious, may be covered in any desired way—for example, by placing a board thereon when loading; but I prefer to employ a metallic plate or flap l , and hinge the same at or near the
100 forward end of the slot or opening by means of staples l' , as shown, or otherwise. As the

section *e* thus bifurcated is tilted, the rear portion straddles the reach *c*, while the hinged plate *l* rests thereon, as indicated, at a greater or less incline. Upon raising the section the plate assumes its normal position, as shown in Fig. 1.

A bar *m*, having one end pivoted at *m'*, Fig. 2, is arranged so that the opposite end is free to move in a stirrup *n* beneath the rear end of the section *e*, and thereby normally support the latter.

The rear end of the section *f* is provided with one or more projecting handles *f'*, by which it may be operated. A hasp *o*, loosely attached to the back of the end-board *a*², is provided with a slot adapted to receive a stud or tenon *f*², by means of which said section may be supported and locked in place. A pin *f*², Fig. 4, serves to prevent the accidental detachment of the hasp.

As it is frequently difficult to initiate the movement of the sections in dumping when the load consists of heavy or closely-packed material, such as wet clay, it is often desirable to partially tilt one of the sections, so that its weight when so inclined may aid in dumping the other. This I accomplish by means of the slot *j'* in the rear end of the bar *j*, which by unlocking the hasp *o* enables the section *f* to tilt slightly before the forward section is released. The backward pull thereby induced upon the bar *j* enables the entire load to be easily dumped as soon as the bar *m* is pushed back. On the other hand, it is obvious that the raising of the section *f* by means of the handles *f'* forces the section *e* to its normal position, so that the bar *m* may be pushed beneath to support it as soon as the suction *f* is secured by the hasp *o*. It will be readily seen that the slot *j'* may be placed in the other end of the bar, in which case the section *e* may be first released in unloading.

I am aware that it is old to construct a dumping-wagon with a series of pivoted bottom boards running lengthwise thereof, connected by means of a cross-bar beneath, which is

loosely attached to the edges of said boards and connected at its end to a lever, by which said bar may be reciprocated for the purpose of tilting said bottom boards upon their axes. I am also aware that a dumping-box has been constructed having a series of transverse V-shaped troughs therein, the rear of each one of which is provided with a swinging door, the door, being loosely connected to each other by a bar beneath, which causes them to open and close in unison; but I make no claim to either of said constructions.

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

1. The combination, with a stationary box, of pivoted bottom sections arranged to rest normally in a horizontal position therein, standards rigidly attached to said bottom sections, respectively, of a length equal to about the depth of the box and arranged at right angles to the plane of said sections, a bar for loosely connecting the extended ends of said standards, one or more backward extensions, such as the handles *f'*, upon the rearmost bottom section, and means, such as the hasp *o* and pintle *f*², for normally fastening said rear section, whereby the latter may form a lever for dumping said sections, as well as for holding them normally in a horizontal position by means of said fastening, substantially as specified.

2. The combination of the pivoted bottom sections, vertical posts *i i'*, attached thereto, connecting-bar *j*, and means for permitting a limited play in connection with said bar, whereby the movement of the rear section may be initiated in dumping while the forward one is stationary, substantially as shown and described.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 1st day of August, 1890.

JOSEPH BLUM.

Witnesses:

D. H. FLETCHER,
J. B. HALPENNY.