

(Model.)

2 Sheets—Sheet 1.

J. G. LESLIE & W. A. HALL.

COMBINED WAGON BOX AND HAY RACK.

No. 277,751.

Patented May 15, 1883.

fig 1.

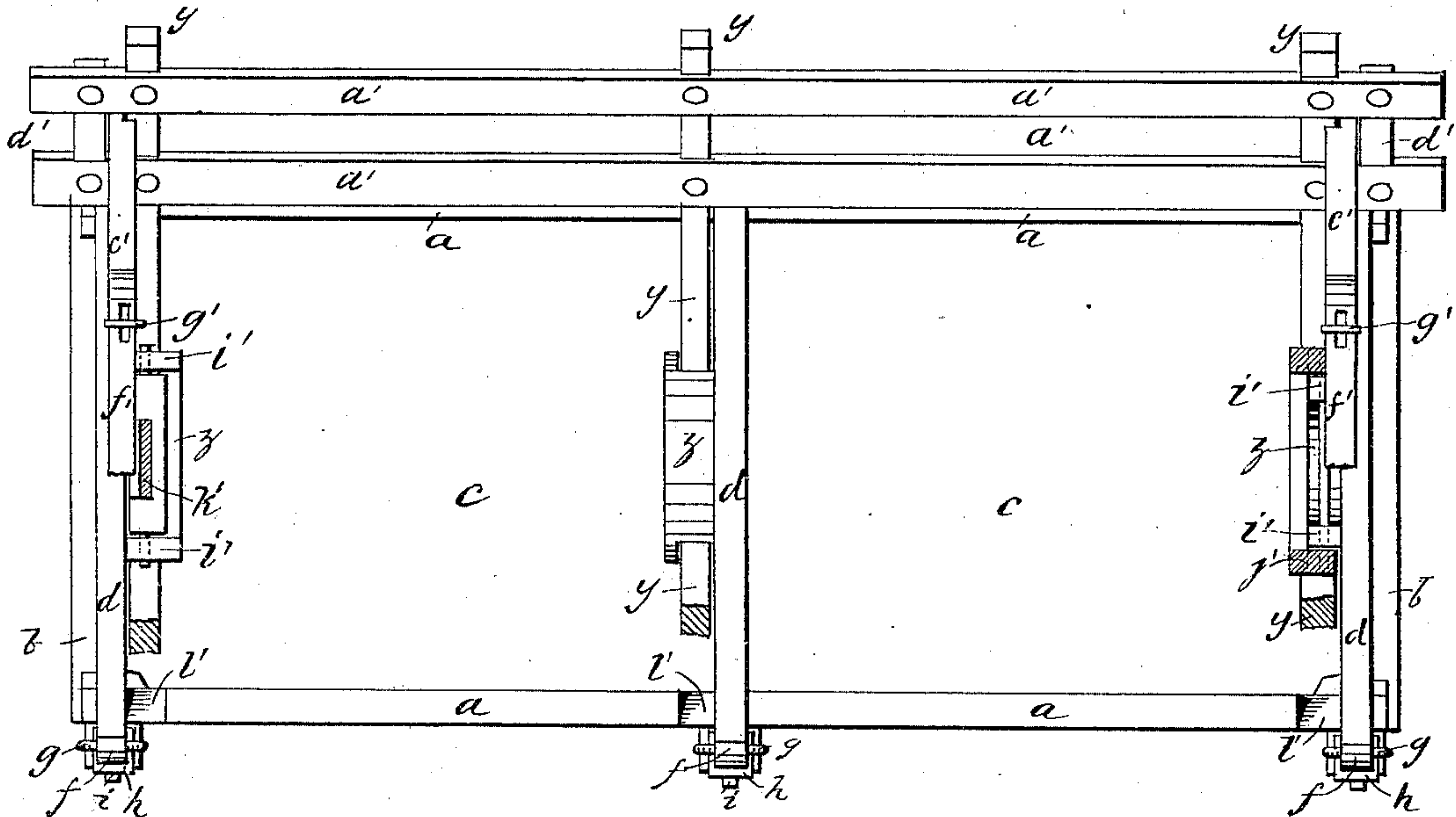


fig 2.

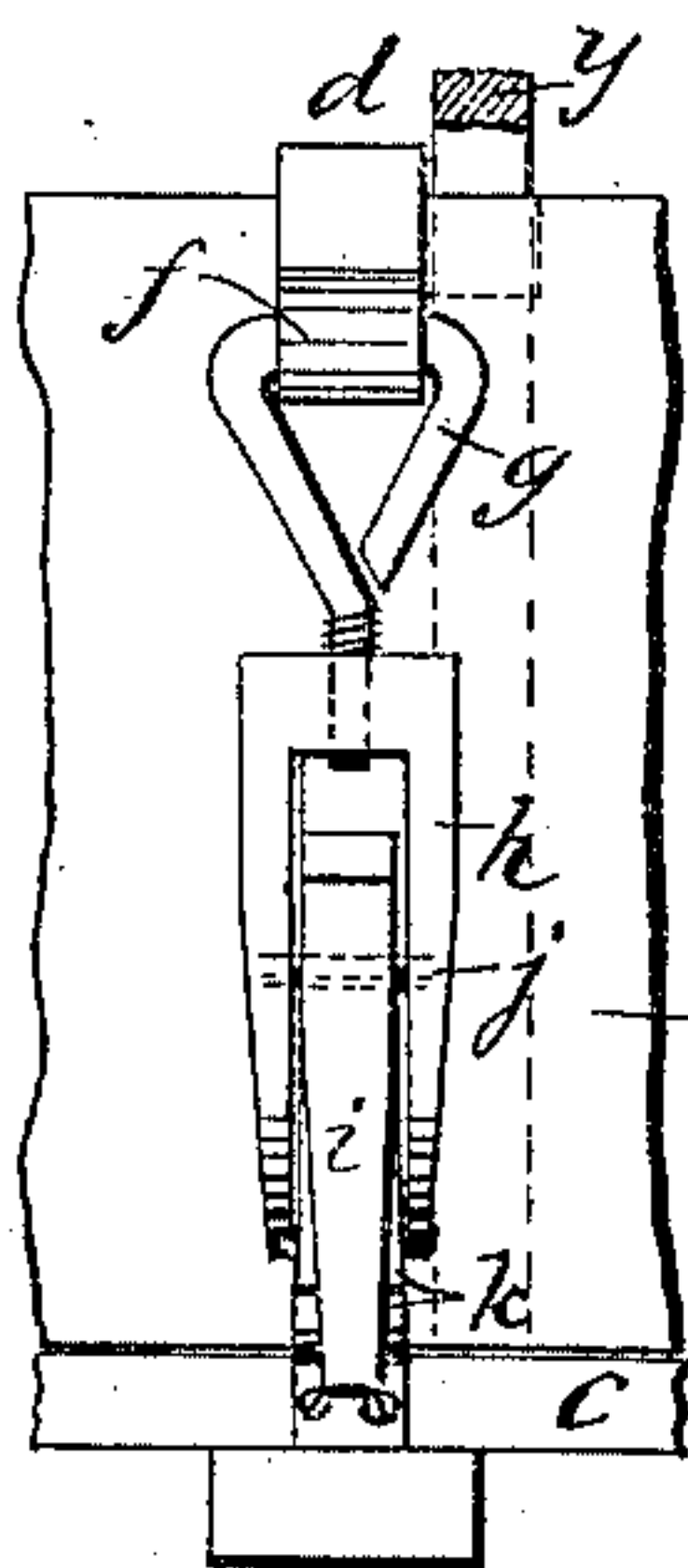


fig 3

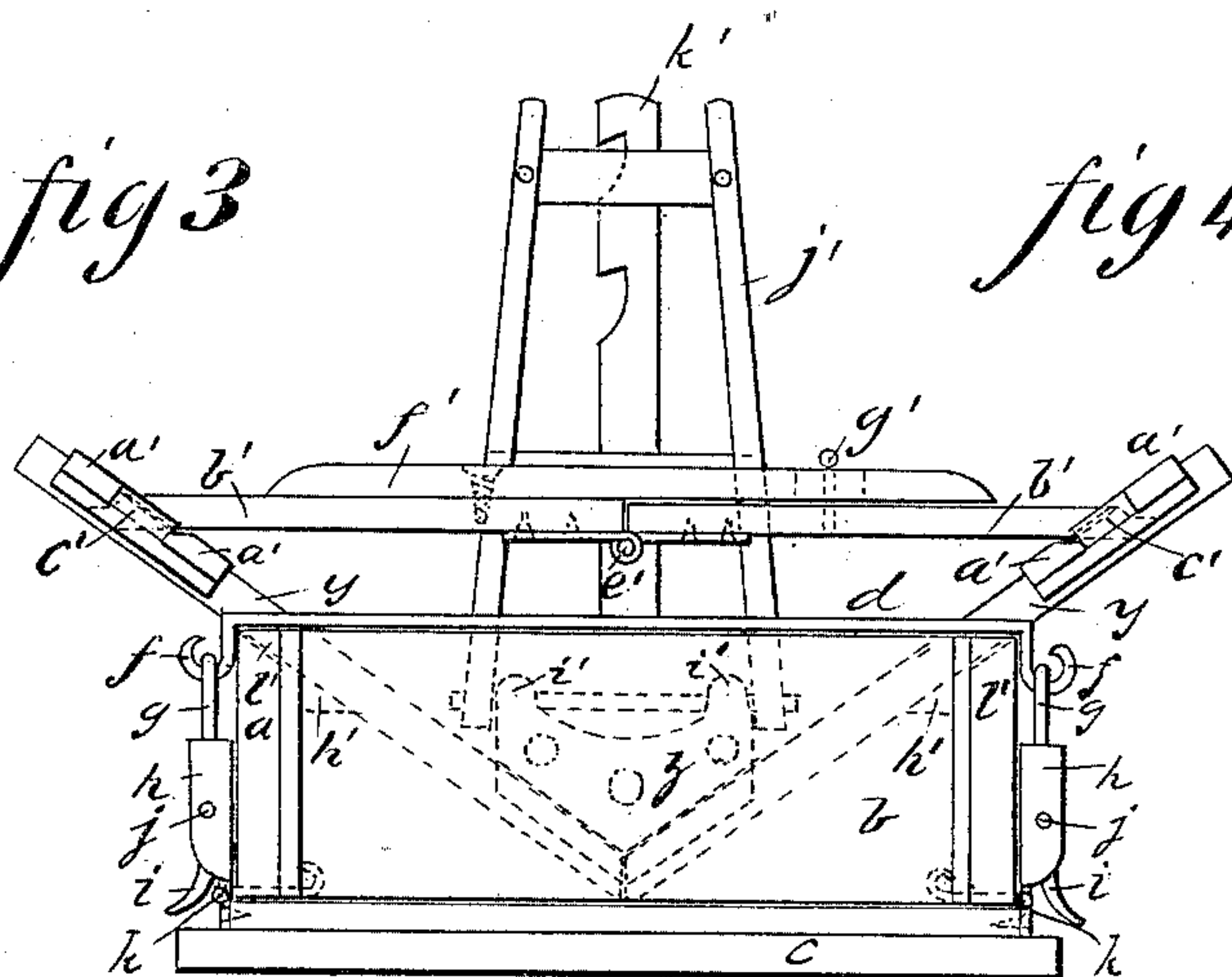
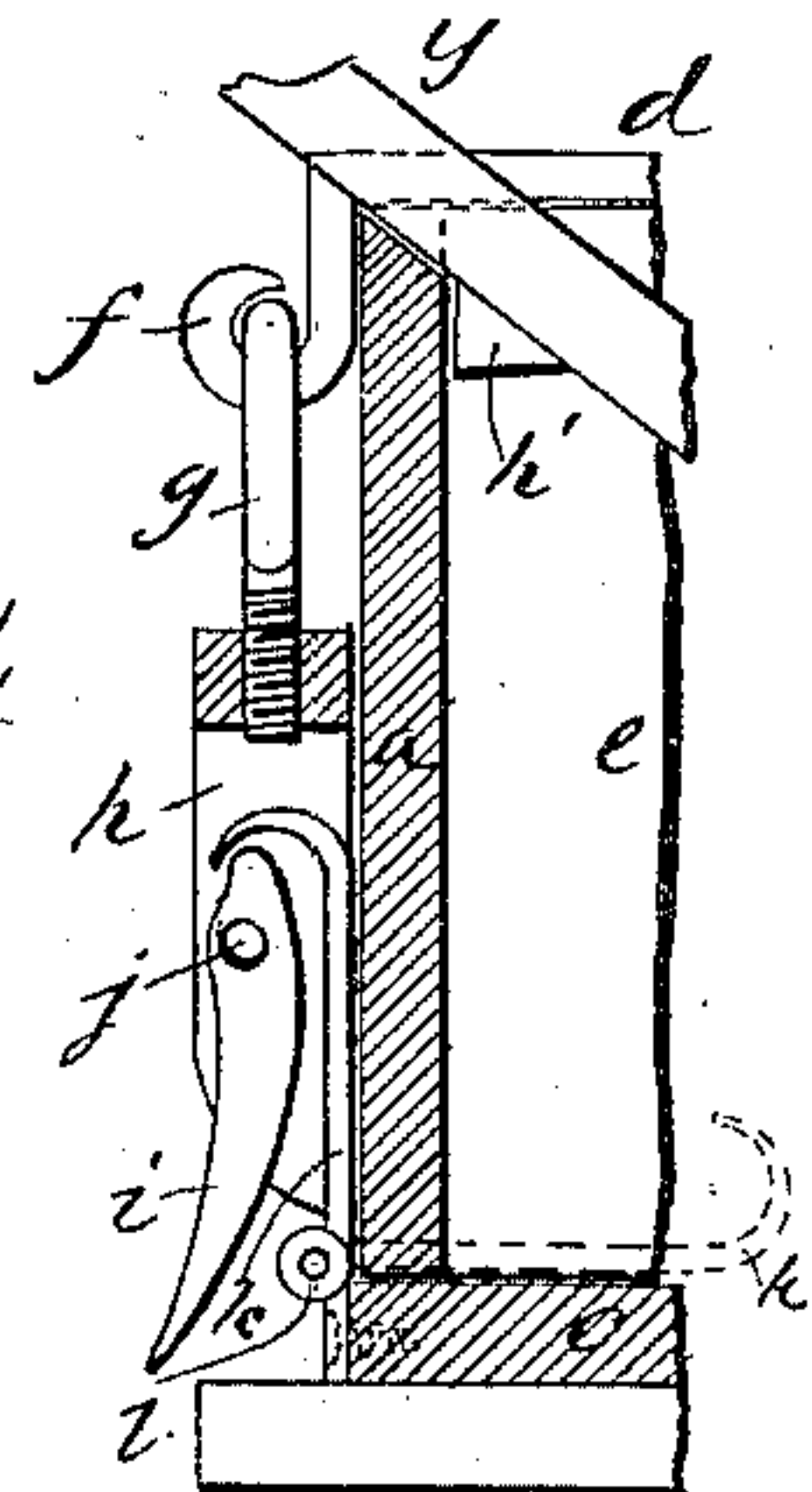


fig 4



WITNESSES:

Chas. T. Howell,
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INVENTOR:

J. G. Leslie
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ATTORNEYS.

(Model.)

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fig 5.

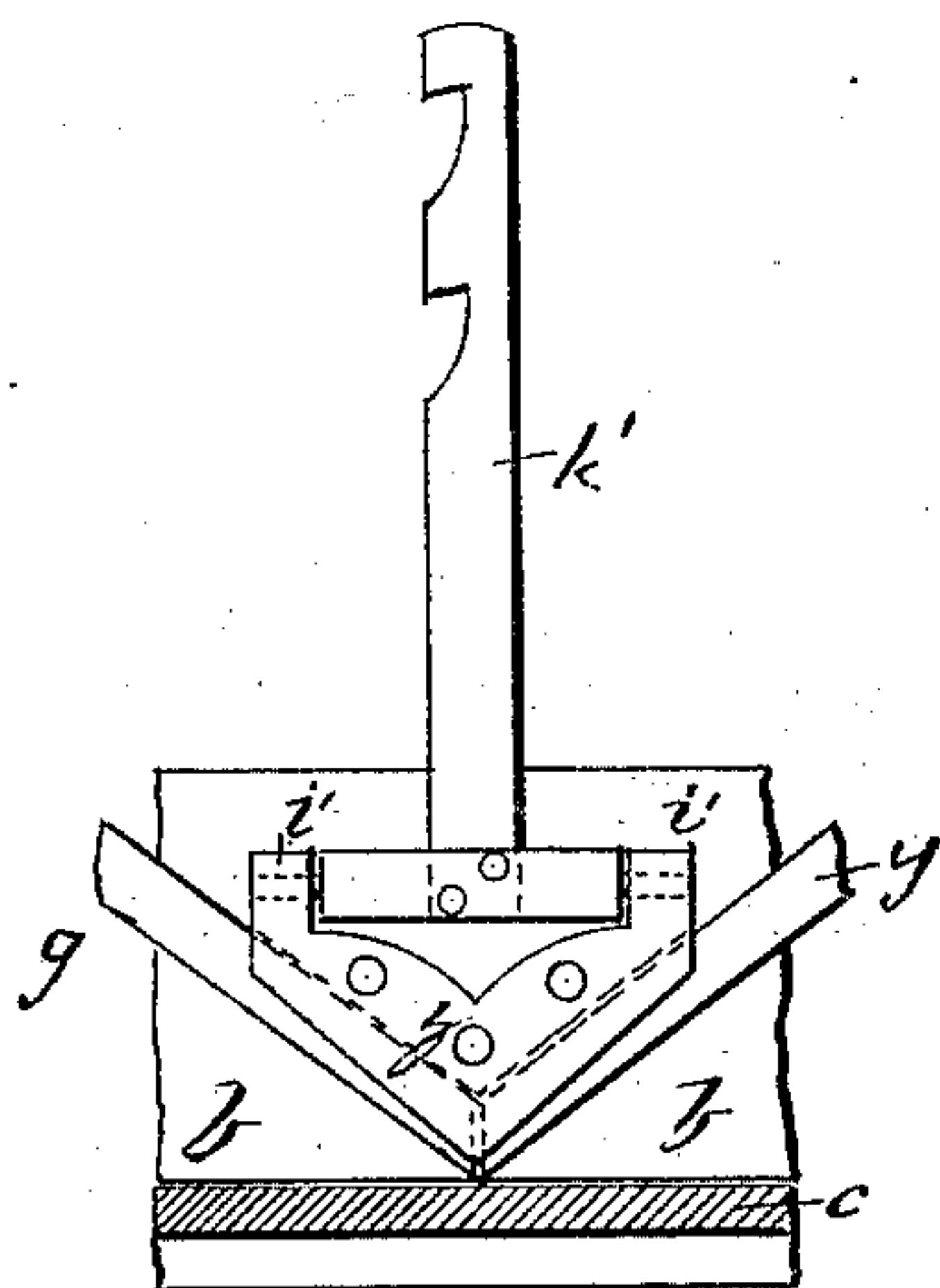


fig 6.

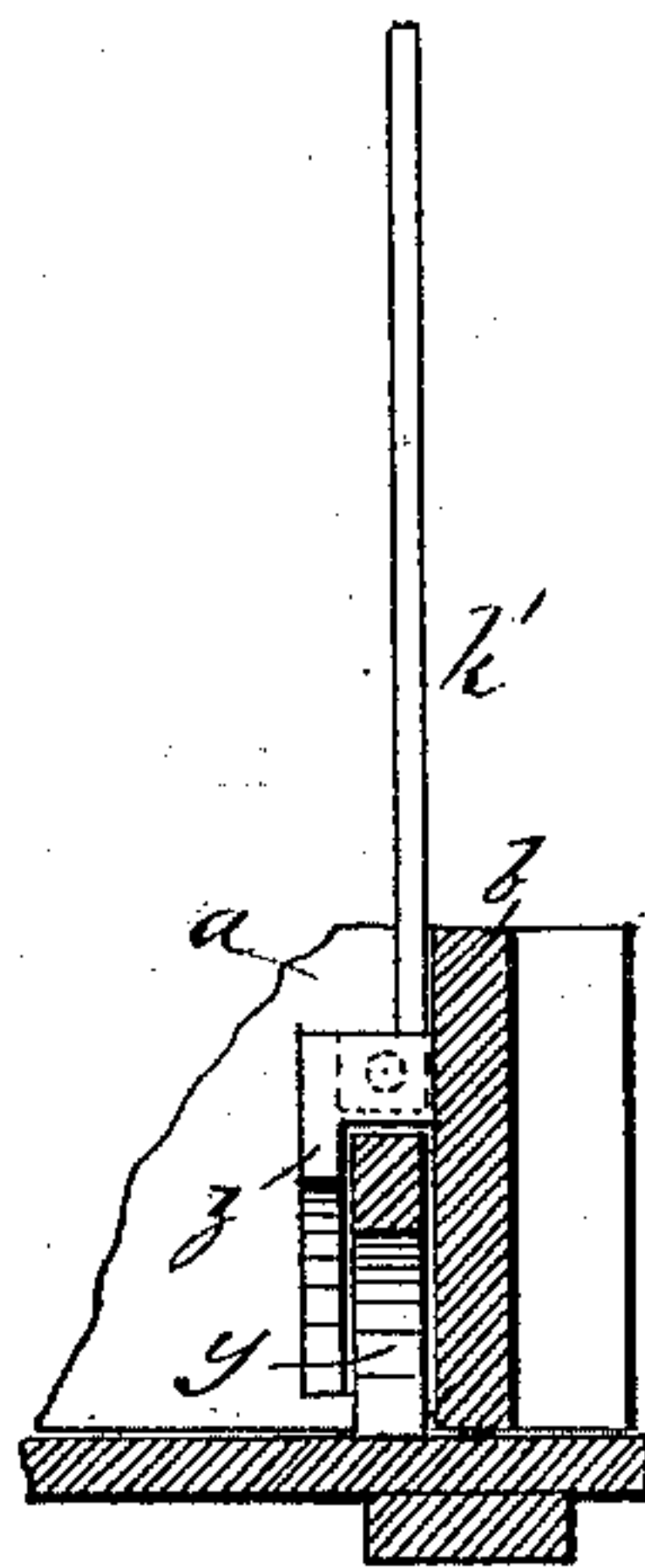


fig 7.

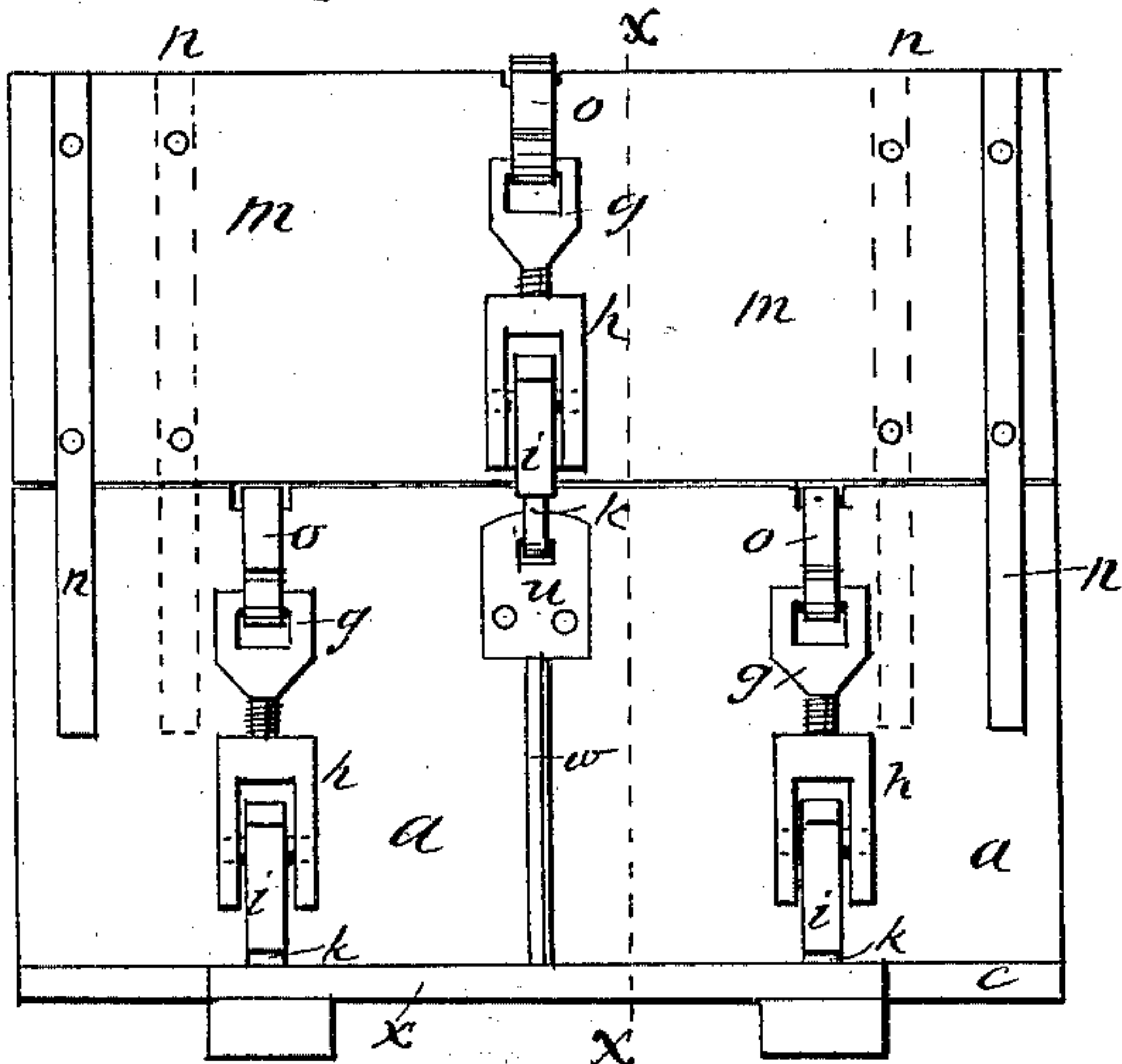
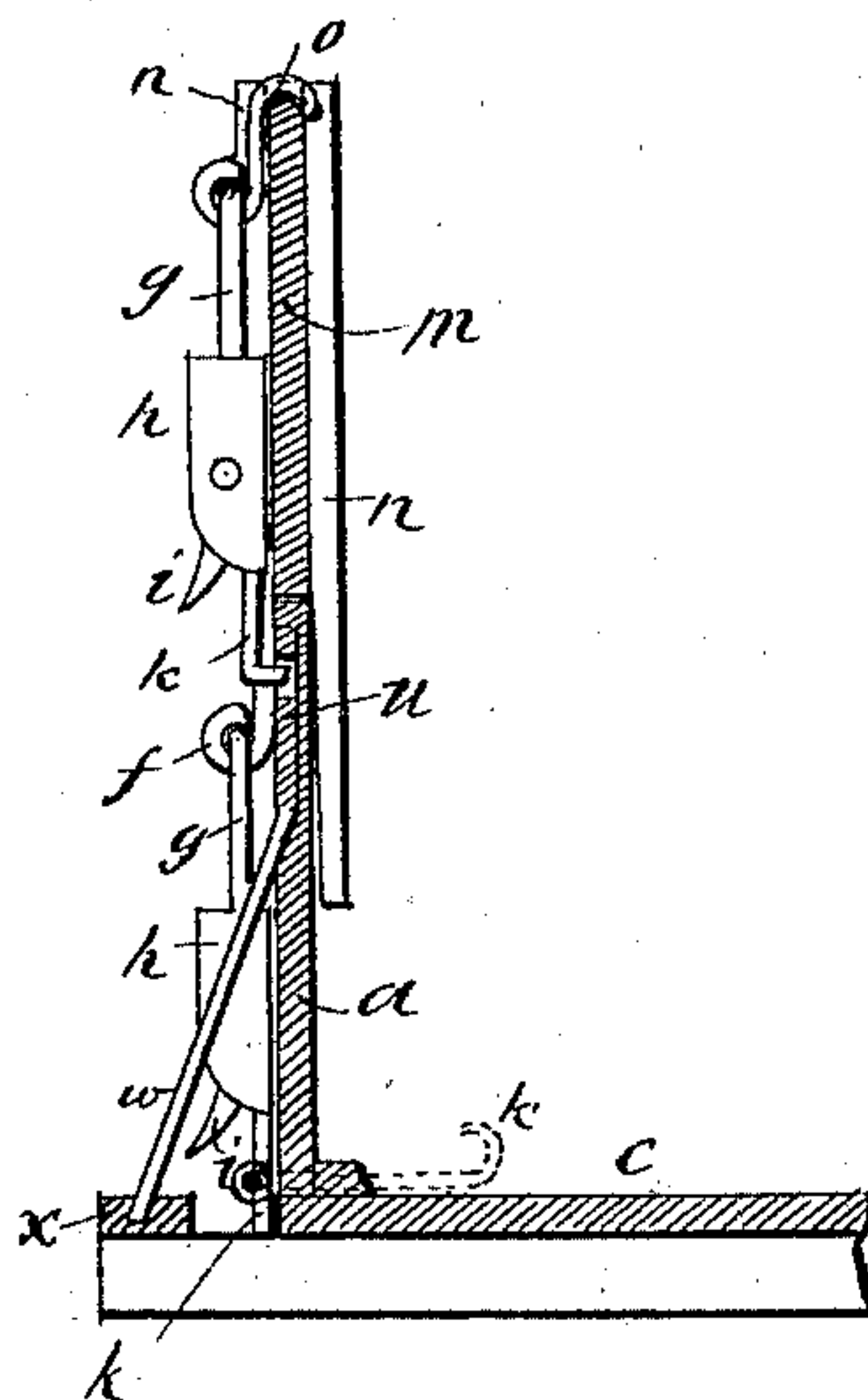


fig 8.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES G. LESLIE, OF OREGON, AND WILLIAM A. HALL, OF PINE ROCK, ILL.

COMBINED WAGON-BOX AND HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 277,751, dated May 15, 1883.

Application filed December 7, 1882. (Model.)

To all whom it may concern:

Be it known that we, JAMES G. LESLIE, of Oregon, in the county of Ogle and State of Illinois, and WILLIAM A. HALL, of Pine Rock township, in the county and State aforesaid, have invented a new and Improved Combined Wagon-Box and Hay-Rack, of which the following is a full, clear, and exact description.

Our invention consists of improvements in the construction of a wagon-box with a hay-rack attachment, the objects of which are to provide a simple, cheap, and substantial construction of the same in sections, by which the loading and unloading of the box and rack may be easily performed by one person, and the part forming the bed of the rack may also serve for a part of the wagon-box, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a top or plan view of the combined box and rack, with a part of the latter in horizontal section. Fig. 2 is an end elevation of the same. Fig. 3 is a detail in side elevation. Fig. 4 is a detail of the box in transverse section. Figs. 5 and 6 are sectional details of Figs. 1 and 2. Fig. 7 is a detail of the box in side elevation, and Fig. 8 is a section of Fig. 7 on the line *xx*.

The sides *a* and ends *b* of the bed-frame for the support of the rack, and forming the lower portion of the wagon-box, are secured to the bottom *c* by means of flat bars *d*, crossing from side to side over the ends *b*, and a middle partition, *e*, and having eye-hooks *f*, overhanging the sides *a*, which engage eye-studs *g*, which are adjustably screwed into clamp-frames *h*, having a clamping-dog, *i*, fixed on a pivot, *j*, and engaging with the hook *k*, attached to the bottom *c*, and being hinged thereto at *l*, so as to swing down into the position shown in dotted lines, Figs. 2 and 4, when the bed-frame *a* *b* is removed. When the wagon-box is to be used without the rack, top sections, *m*, are to be attached to the sides *a* by means of outside and inside cleats, *n*, the sides *m* being clamped down on the top of sides *a*, at the middle, by a hook, *o*, adjustable eye-screw *g*, clamp-frame *h*, dog *i*, and hook *k*, said hook in

this case engaging a plate, *u*, attached to the side *a*, near the top, and having a brace, *w*, extending down to the bar *x* of the bed-frame for staying the box side at the middle, the middle partition *e* and cross-bar *d* being in this case dispensed with, the same not being required for the box, and two side clamps being substituted for the middle one, Fig. 1, and located each side of the middle where the upper clamp connects, and hooking onto the top edge, *a*, by hooks *o*, same as the upper clamp connects with the upper edge of side *m*. The cross-bars *d* will be used, however, over the ends *a*, all the same as when the upper portion of the box is not used, the upper end portions being clamped on the same, as here shown, for the middle portion of the sides.

The rack attachment consists of the inclined arms *y*, fitting under the tapered and grooved edged supports *z*, attached to the insides of ends *b* and to one side of partition *e*, said arms resting on the upper edges of sides *a* and supporting the racks *a'*, and the racks are connected and stayed at the ends and middle, if desired, by the jointed cross-bars *b'*, which enter at their outer ends in the spaces between the rack-bars *a'*, and also between the arms *y* and cleats *d'*, as shown at *c'*, when the joint *e'* is flexed, and are then secured by the splice-bar *f'* and button *g'* in a manner to stay the side to a considerable extent, and at the same time to serve for the end portions of the rack. The arms *y* rest in notches *l'* in the upper edges of the sides *a*, and they have a metal shoulder-piece, *h'*, attached to the under side and dropping down inside of sides *a*, as more clearly shown in Fig. 4, to prevent the arms from being thrust out of place by sidewise lurches of the load by the jolting of the wagon over rough roads. The two end arm-supports, *z*, have pivot lugs or ears *i'* on the top, to which the front ladder, *j'*, and the hind binder-pole fastener, *k'*, may be pivoted, so as to lie down in the rack when the latter is empty. These supports *z* will preferably be made of cast-iron, but may of course be made of strong wood, if desired.

The screw-threaded connection of the screw-eyes *g* with the clamp-frames *h* enables the slack to be taken up at any time, as may be required by the shrinkage of the sides *a* or *m*.

It will be seen that the above-described sectional construction of the said combined box and rack makes a convenient arrangement, enabling it to be easily handled by one person to put on and take off of the wagon. Moreover, the contrivance of the connecting and disconnecting devices dispenses in great measure with connecting bolts and rods, especially the rods commonly used to pass through the sides and bind them to the ends, which are difficult to get out and put in, said rods being here displaced by the bars *d*, which may be put on and taken off in the most ready manner.

The fastening device for the jointed bar *b'* and splice-bar *f'* may be contrived in any approved way to take up the slack of wear and allow for expansion and contraction. Besides the advantage of the sectional contrivance of the rack and box for convenience of handling, it enables the parts to be stowed away compactly in much less space than when so constructed that it cannot be taken apart.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the bed *c* and sides *a*, of the clamping device consisting of adjustable screw-eye *g*, clamp-frame *h*, dog *i*,

hook *k*, and bar *d*, having a hook, *f*, substantially as described.

2. The combination, with the bed *c* and sides *a*, of the clamping device consisting of the adjustable screw-eye *g*, clamp-frame *h*, dog *i*, hook *k*, and hook *o*, substantially as described.

3. In a wagon-box having sides *a* and ends *b*, secured to the bed by the bars *d* and clamping devices, substantially as herein described, the top sides and ends, *m*, secured to the sides *a* and ends *b* by cleats *n*, and clamps consisting of the parts *o*, *g*, *h*, *i*, *k*, and *u*, substantially as described.

4. The combination of socket-plate *u*, having brace *w*, with the bed *c*, side *a*, top side, *m*, and the clamp consisting of hooks *o*, screw-eye *g*, clamp-frame *h*, dog *i*, and hook *k*, substantially as described.

5. The combination, with the sides *a*, ends *b*, and the supporting-arms *y*, of the arm-supports *z*, having pivot-lugs *i'*, and the rack and binder-supports pivoted thereto, substantially as described.

JAMES G. LESLIE.
WILLIAM A. HALL.

Witnesses:

FRANK E. REED,
CHARLES D. ETNYRE.