

(No Model.)

2 Sheets—Sheet 1.

J. HOOLEY.
CAR AXLE BOX.

No. 250,538.

Patented Dec. 6, 1881.

Fig. 1

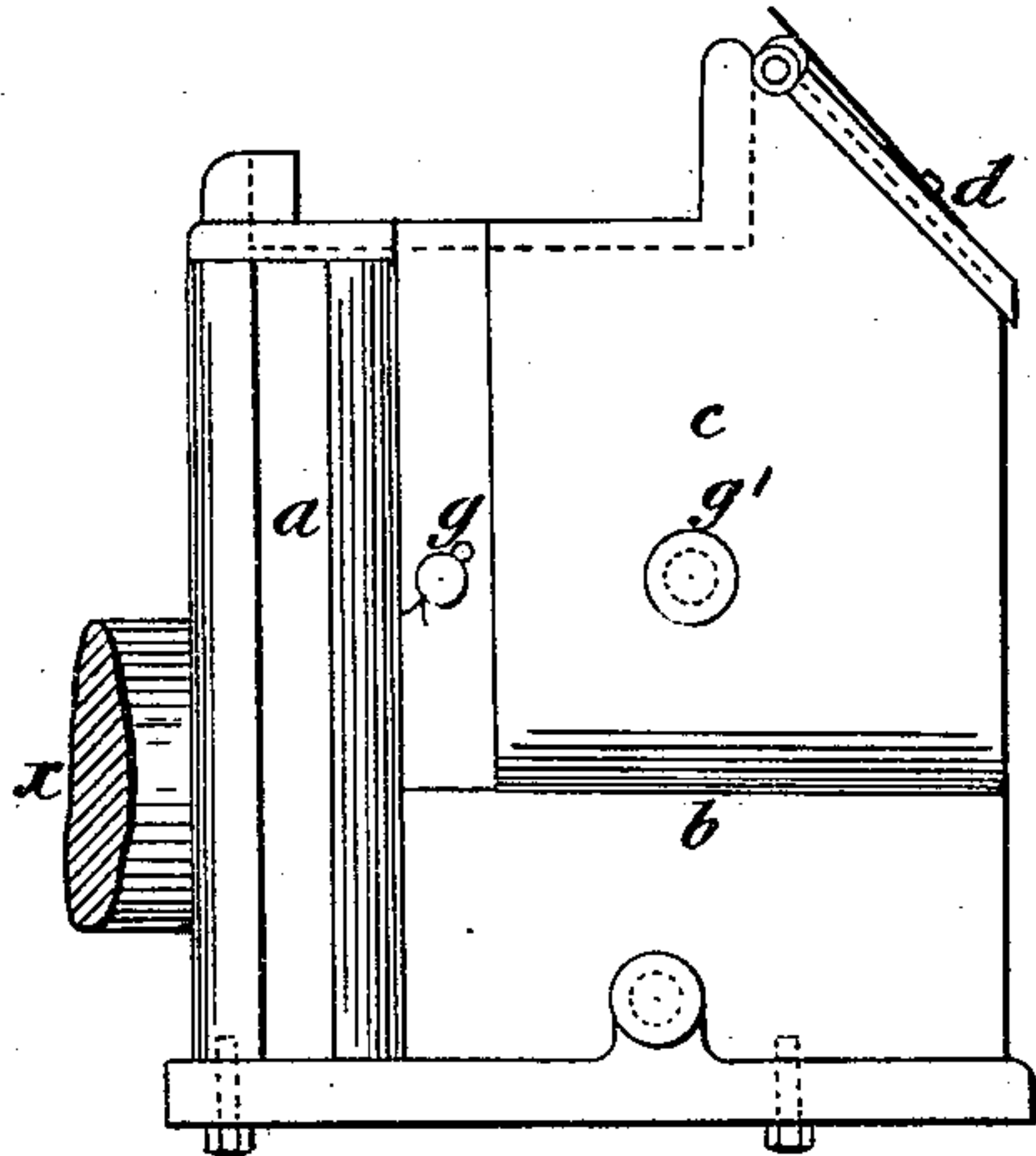


Fig. 2

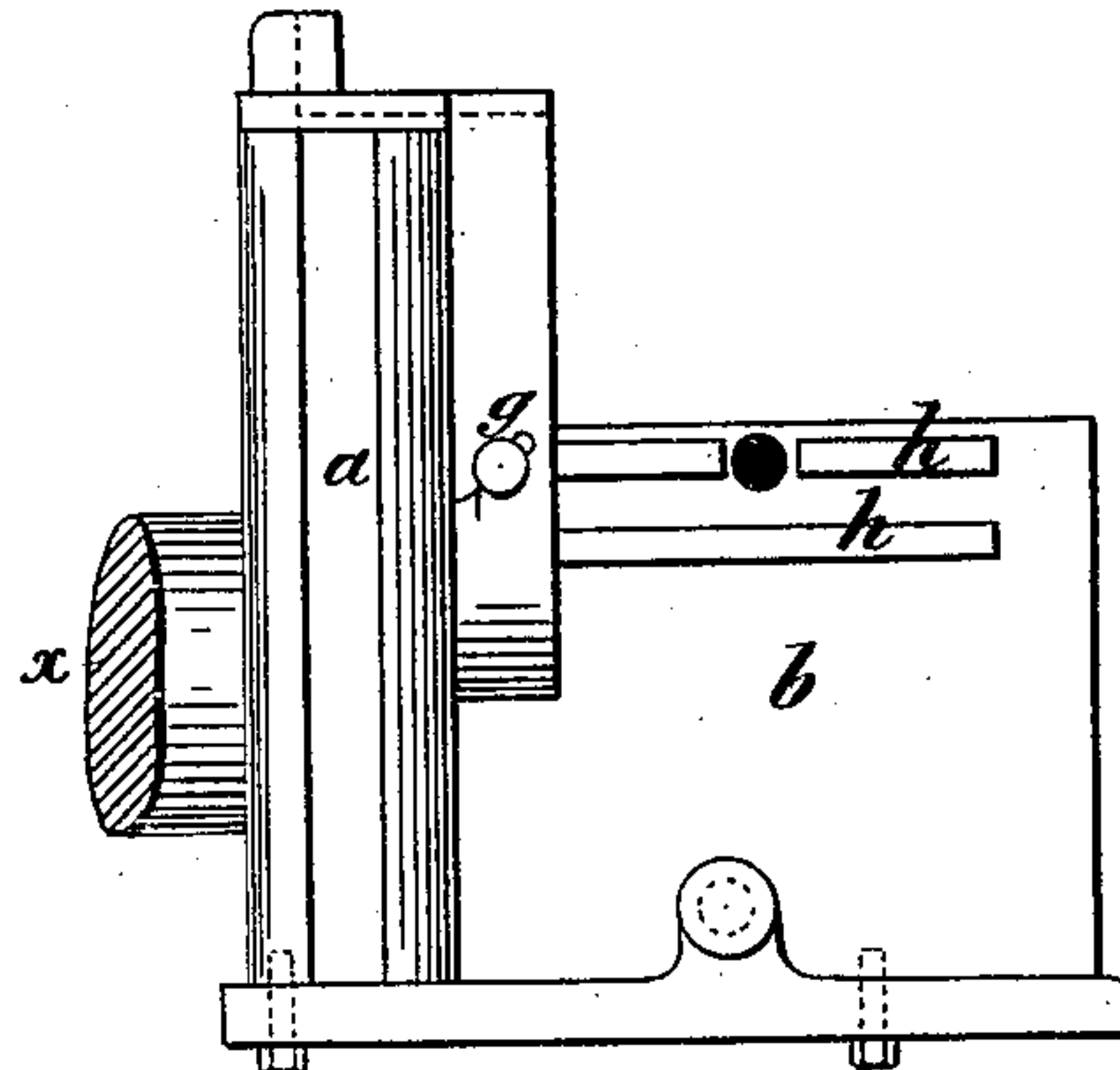


Fig. 3

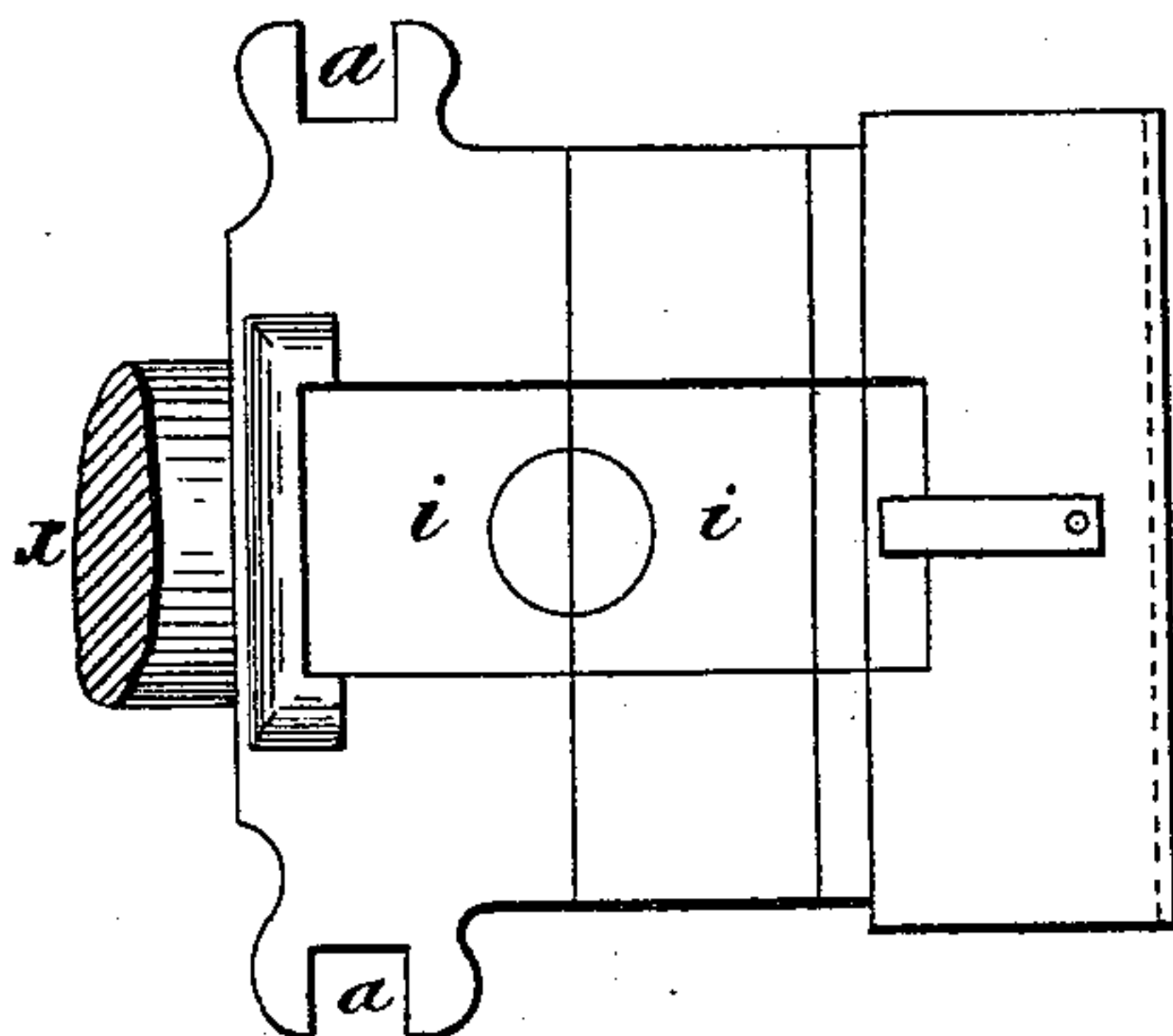


Fig. 4

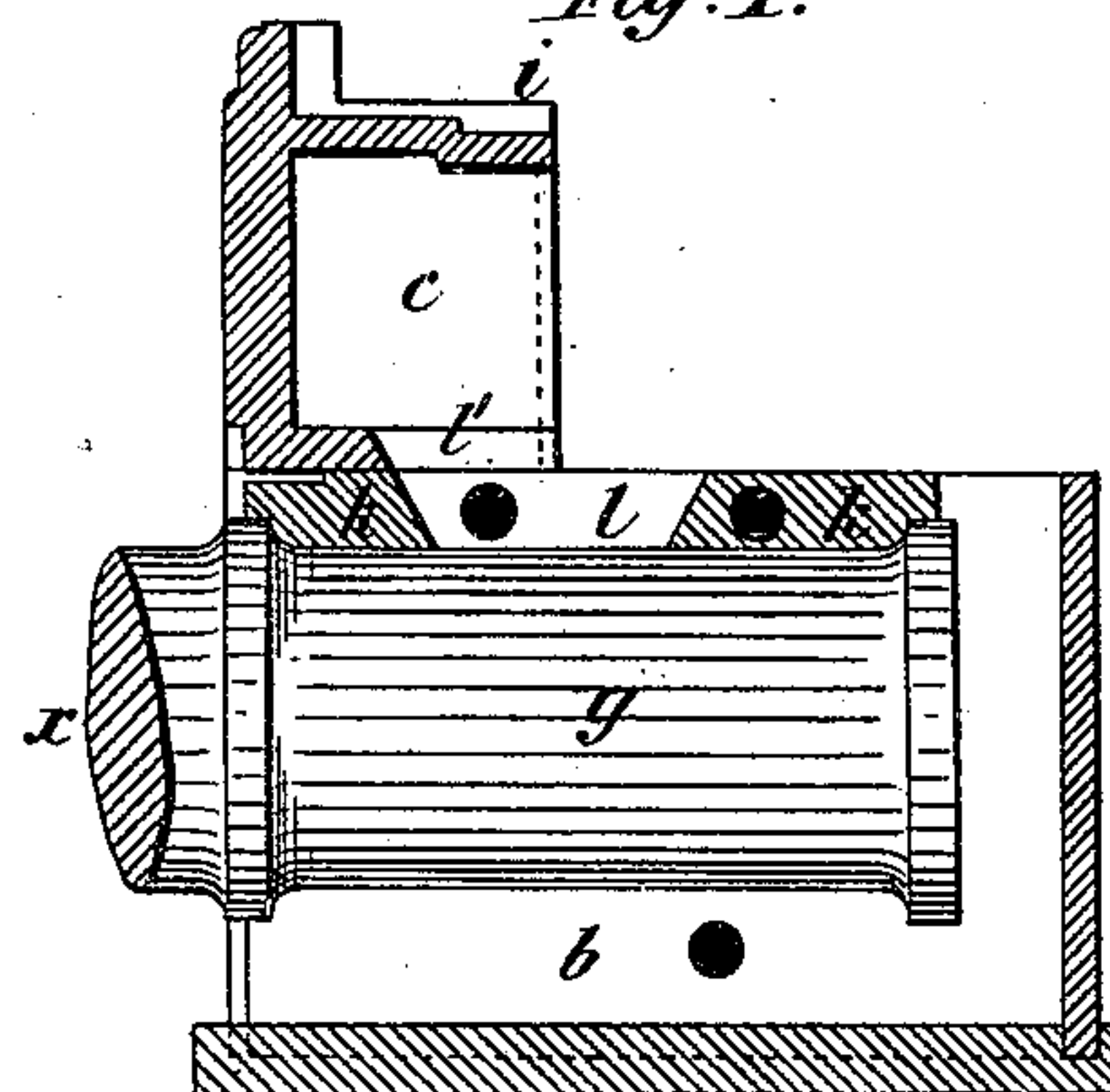
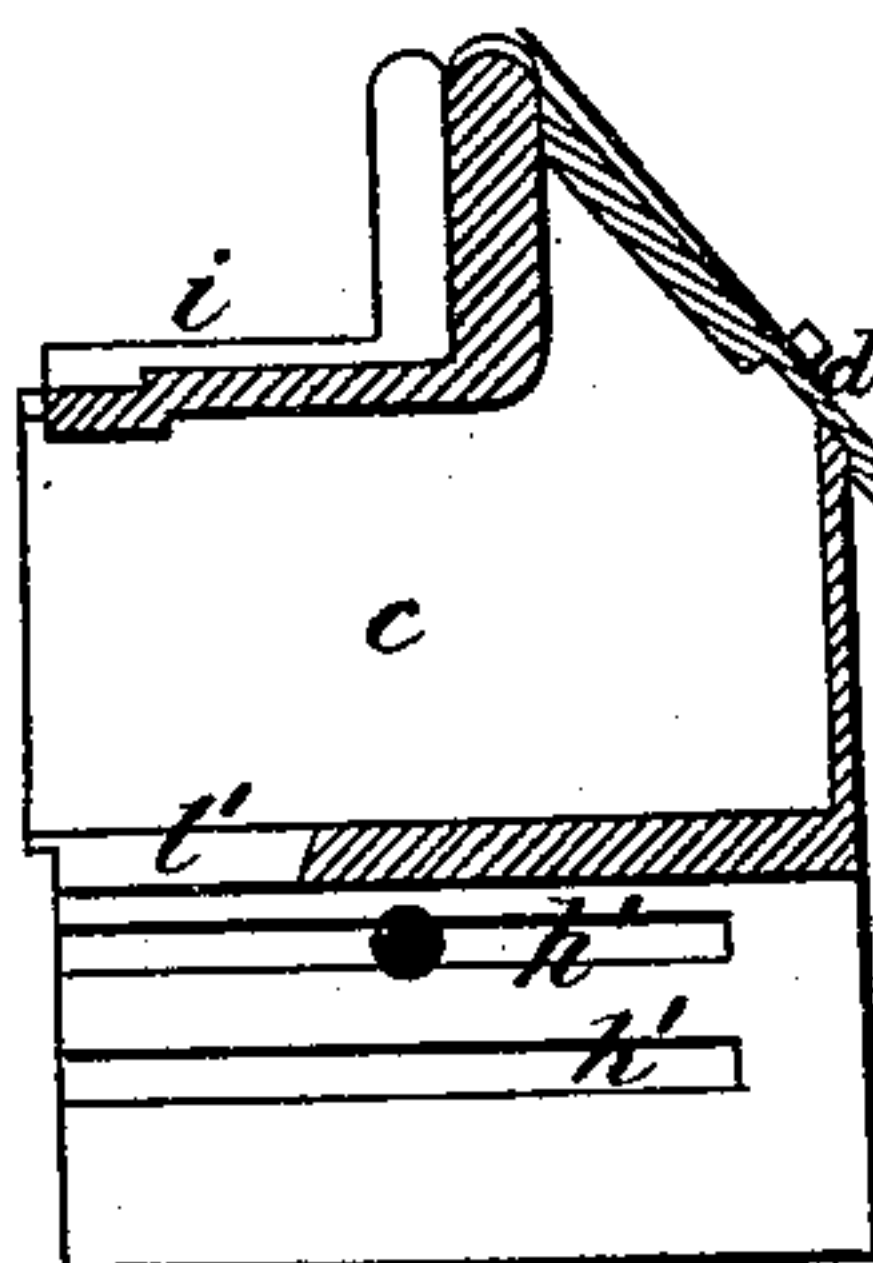


Fig. 5



Witnesses

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Robert Everett

Inventor:
James Hooley

By *James L. Norris*
Atty.

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Fig. 6.

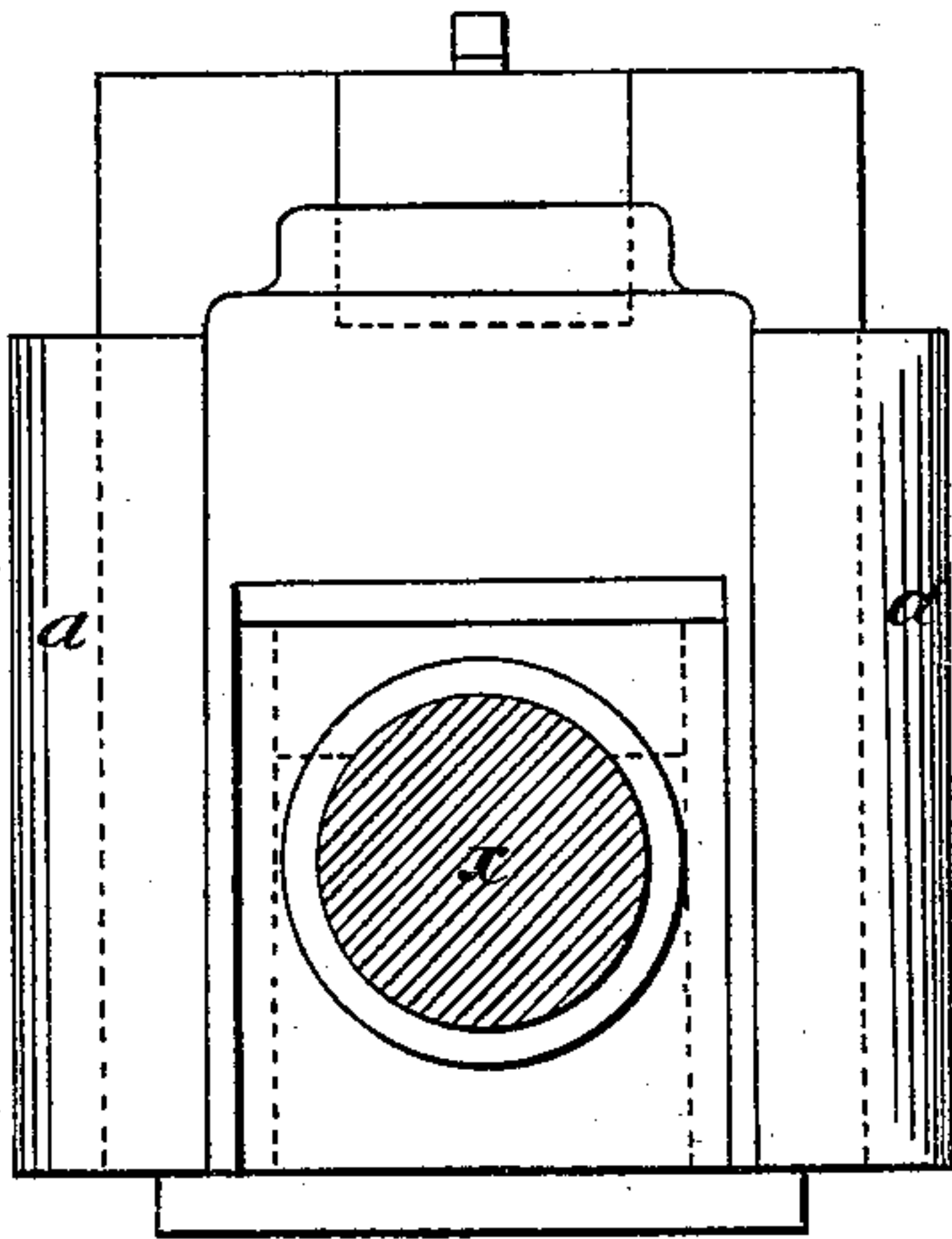


Fig. 7.

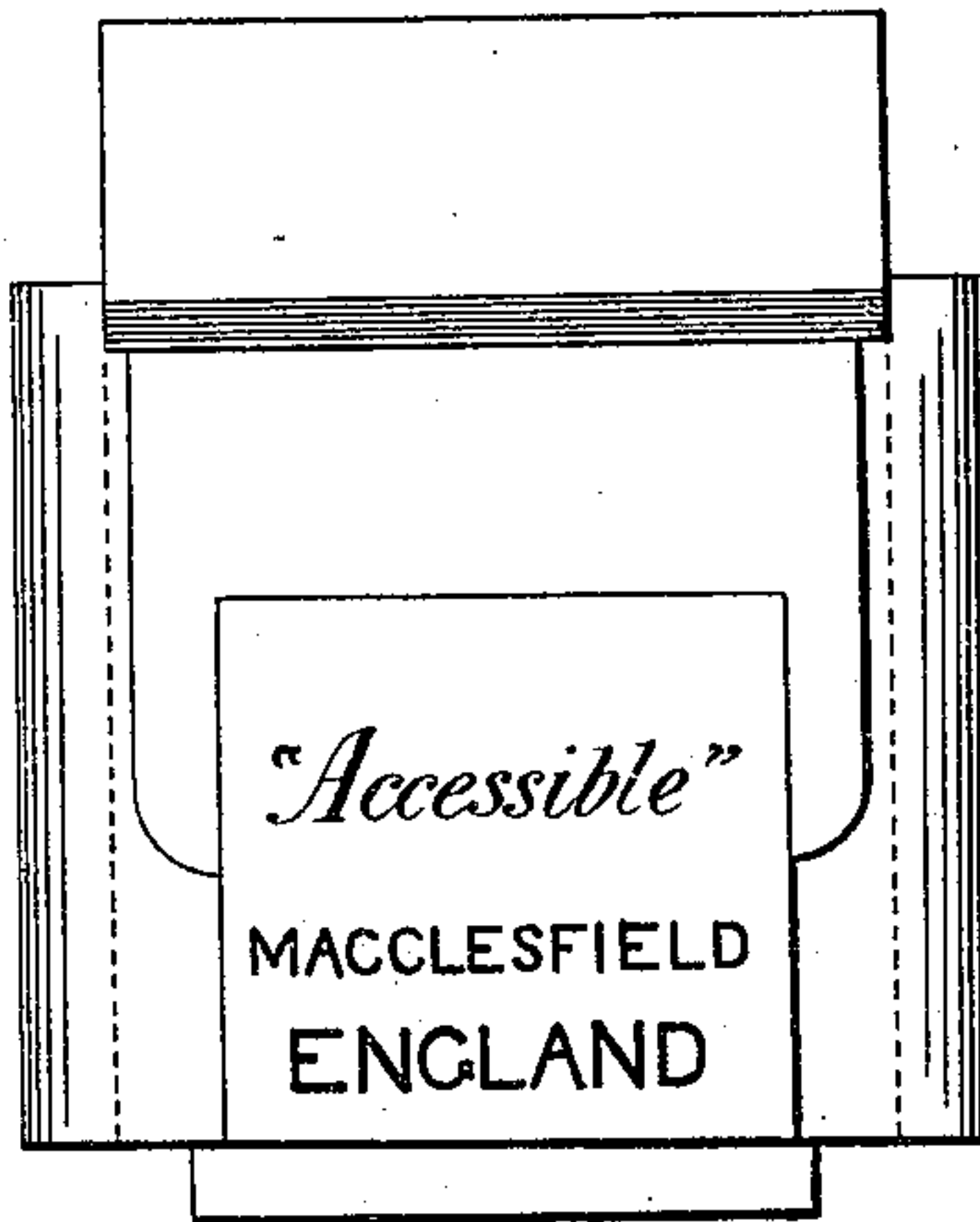


Fig. 8.

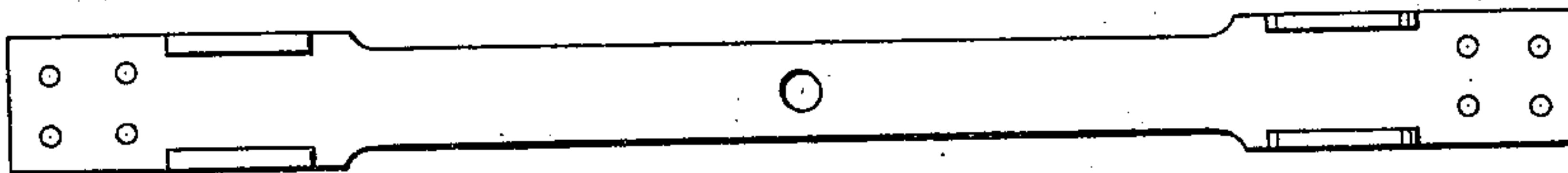


Fig. 9.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES HOOLEY, OF MACCLESFIELD, COUNTY OF CHESTER, ENGLAND.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 250,538, dated December 6, 1881.

Application filed October 27, 1881. (No model.) Patented in England August 9, 1881.

To all whom it may concern:

Be it known that I, JAMES HOOLEY, a subject of the Queen of Great Britain, residing at No. 68 High Street, Macclesfield, in the county of Chester, England, coal-merchant, have invented certain new and useful improvements in the construction of axle or grease boxes and fittings of railway and other axles for railway rolling stock, tram-cars, and other vehicles, (for which I have obtained provisional protection in Great Britain, numbered 3,448, dated 9th August, 1881,) of which the following is a specification.

This invention relates to the construction of two-part axle-boxes especially adapted for railway-cars; and it has for its object to provide means for obtaining ready access to the interior of the box, to exclude rain and dust, and to construct and connect the two parts together in a novel and effective manner, as hereinafter described, and specifically pointed out in the claims.

These improvements are carried out by dividing the axle-box into two parts, one part of which can be readily removed from the remainder in order to obtain access to the interior without removing the carriage from the rails or lifting, hoisting, or raising the same. When thus opened the box may be cleansed or examined and the bearing-brasses adjusted or renewed, whereby repairs, &c., are greatly facilitated. The movable part of the axle-box is made to slide upon the fixed part thereof by means of suitable tongues and grooves, and when pushed home it is held in its place by means of one or more pins or screws, which not only perform this service, but also keep the brass or brasses in its or their places. When the upper part of the box is in its place the whole box forms one rigid air and dust tight axle or grease box, divided by a horizontal partition into two parts. This partition has therein a slot to allow the grease to enter the lower chamber, and the axle-brass is immediately under this slot, and a corresponding slot is made in the brass-bearing in order to give the grease free access to the axle. The bottom plate of the lower chamber is made removable by means of pins or screws which are easily accessible. The upper outside portion of the movable chamber has a grooved diagonal door for inserting the grease,

the groove excluding rain and dirt, such grooved door being an improvement on the usual form.

The shoe-cap, bearing, or spring-carriage I so construct that the same may be readily removed, repaired, or renewed, and at the same time to ease the riding or action of the spring therein, and to prevent the frequent breaking of such shoe-caps.

In order that my said invention may be more clearly understood, reference is herein made to the accompanying drawings, in which similar letters refer to similar parts in the several figures.

Figure 1 is a side elevation of the grease-box complete. *a* is the groove or slide into which the axle-guard fits. *b* is the lower or fixed chamber, and *c* is the upper or movable chamber. *d* is the lid thereto.

Fig. 2 is an elevation of the box with the upper portion, *c*, removed. This is effected by first removing the pin *g'*, when the part *c* can be drawn or slid off and removed. The two sides of *c* are carried down on each side of *b*, and there are two tongues, *h h*, cast upon *b*, as shown, which fit into grooves in *c*, as shown in Fig. 5 at *h' h'*.

Fig. 3 is a top view of the box, *a a* being the axle-guard grooves, and *i i* the recess in which the strap of the spring rests. *x* is the axle in Figs. 1, 2, 3, 4, and 6.

Fig. 4 is a sectional elevation of Fig. 2, *y* being the journal of the axle; *k k*, the brass or bearing, in section; *l*, the slot through which the oil or grease runs to the journal *y*; *l'*, the slot through the floor of *c*. *l'* is also shown in Fig. 5, which is a sectional elevation of *c*, Fig. 1, and which is removed in Fig. 2.

Fig. 6 is an elevation of the inside end of the box nearest to the wheel, and Fig. 7 is an elevation of its outer end.

Fig. 8 is a plan of my improved shoe-cap arrangement, and Fig. 9 is a longitudinal section of the same. It will be seen that I connect two caps by a strip of metal, thereby making them in one piece. The screw-holes for attaching the caps to the wagon are outside the caps, as shown, thereby enabling the caps to be removed without first taking off the spring.

Having now described the nature and object of my said invention and the means whereby

it is to be carried out, I wish it to be understood that what I claim, and desire to be secured to me by the hereinbefore in part recited Letters Patent, is—

- 5 1. The herein-described two-part axle-box, comprising the parts *b* and *c*, detachably connected together by a tongue-and-groove connection, and provided with passages for the grease, substantially as specified.
- 10 2. The combination, with the axle-journal, of the two-part axle-box, comprising the lower part, *b*, with bearings *k* and slot *l*, and the up-

per slidable part, *c*, slotted in its bottom and connected with the lower part by tongue-and-groove connection, the sides of the said upper 15 part being extended down to embrace the sides of the lower part of the box, and said upper part being also provided with a lid, *d*, substantially as described.

JAMES HOOLEY.

Witnesses:

CORNELIUS LAW,
JAMES E. BOND.