

(No Model.)

J. G. ERNST.
CAR AXLE BOX.

No. 282,871.

Patented Aug. 7, 1883.

Fig. 1.

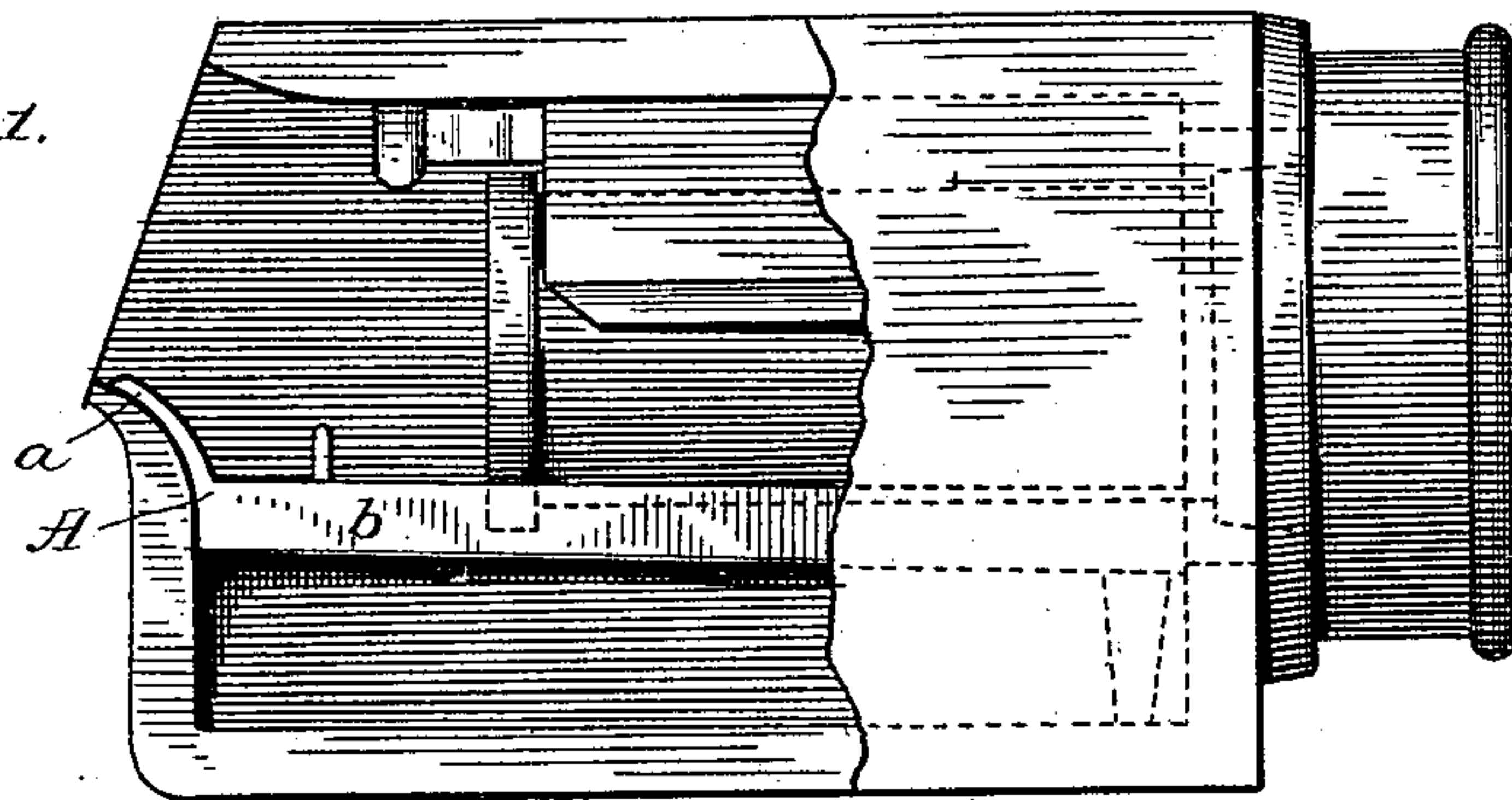


Fig. 2.

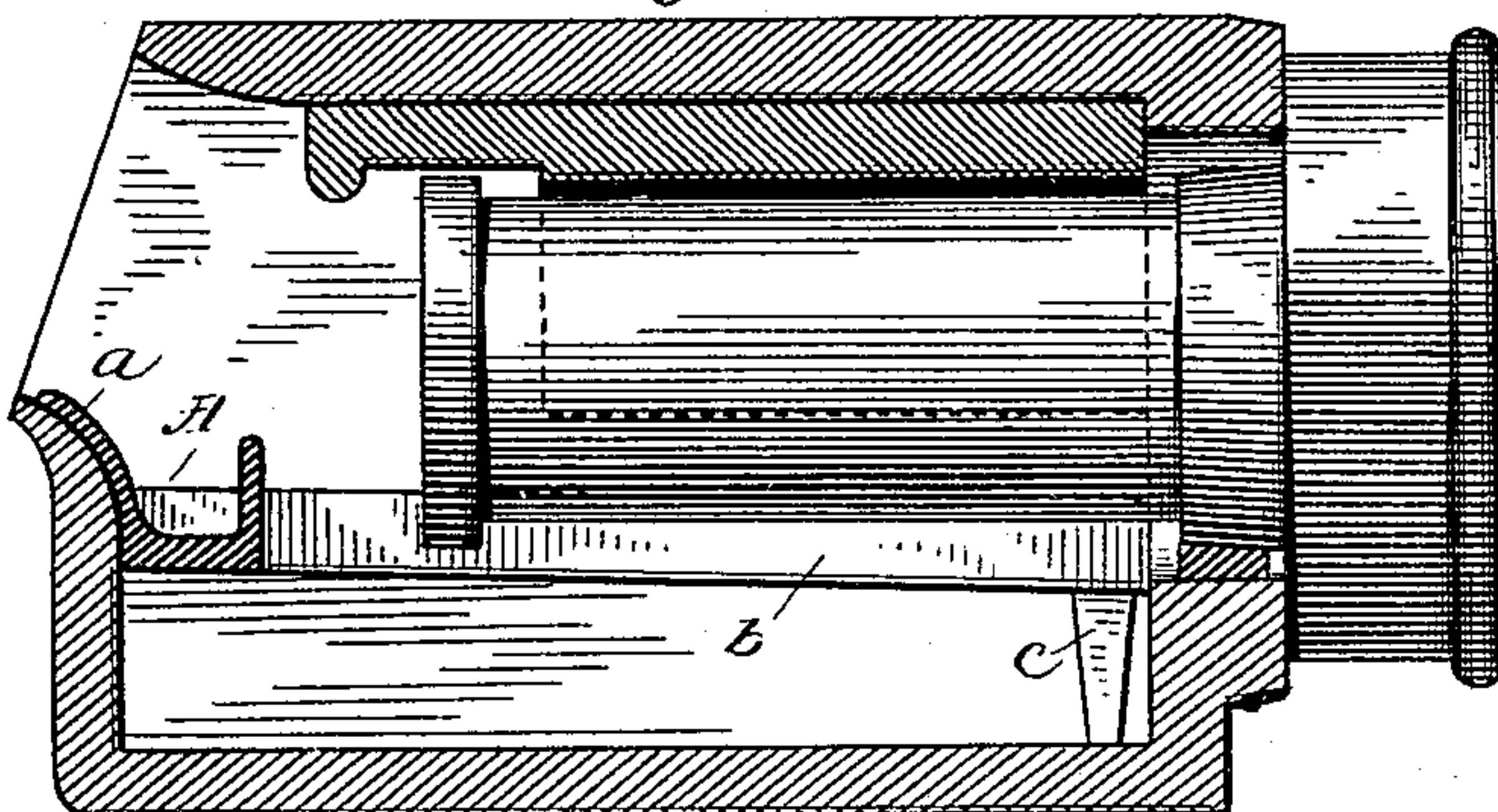


Fig. 3.

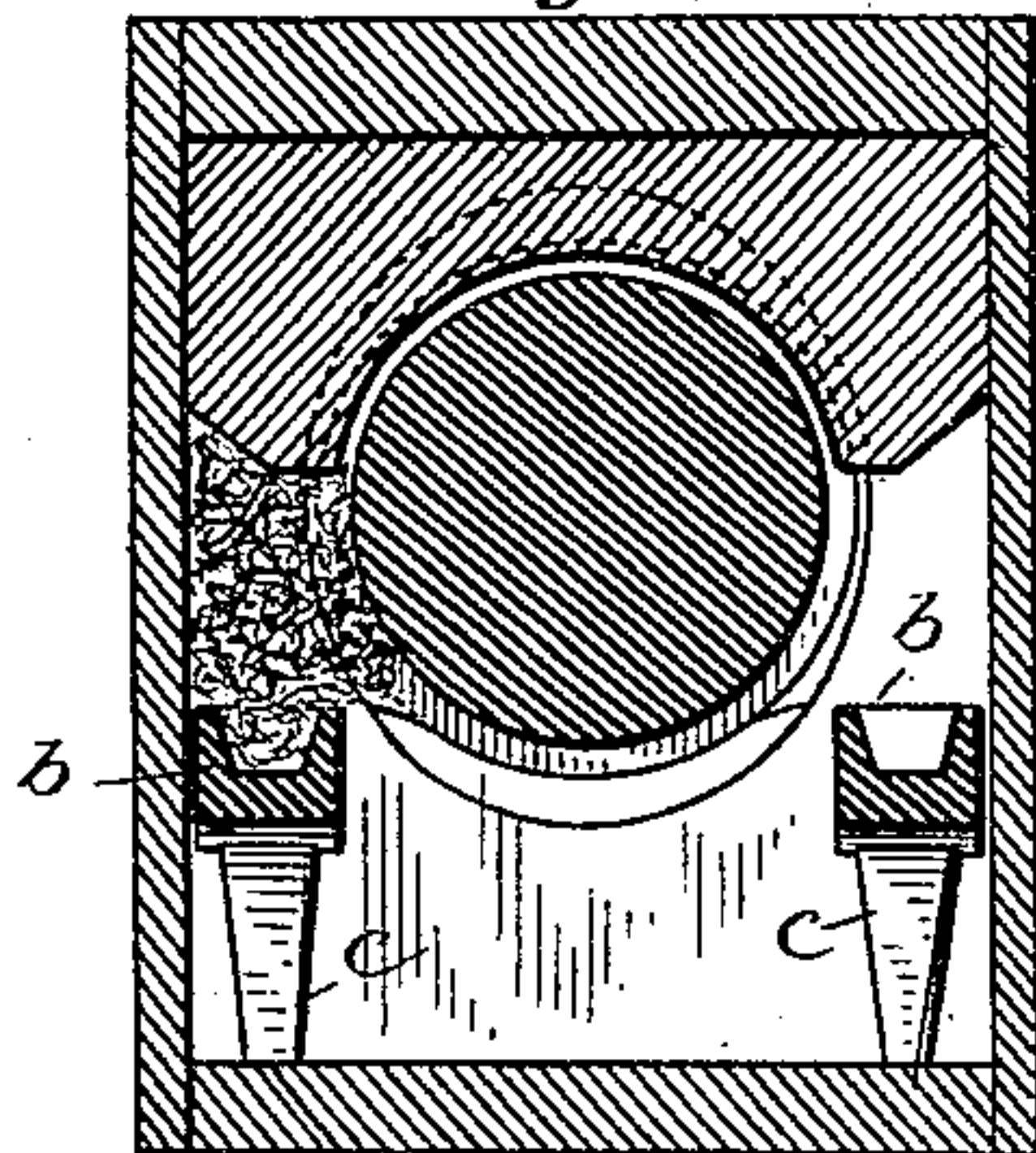
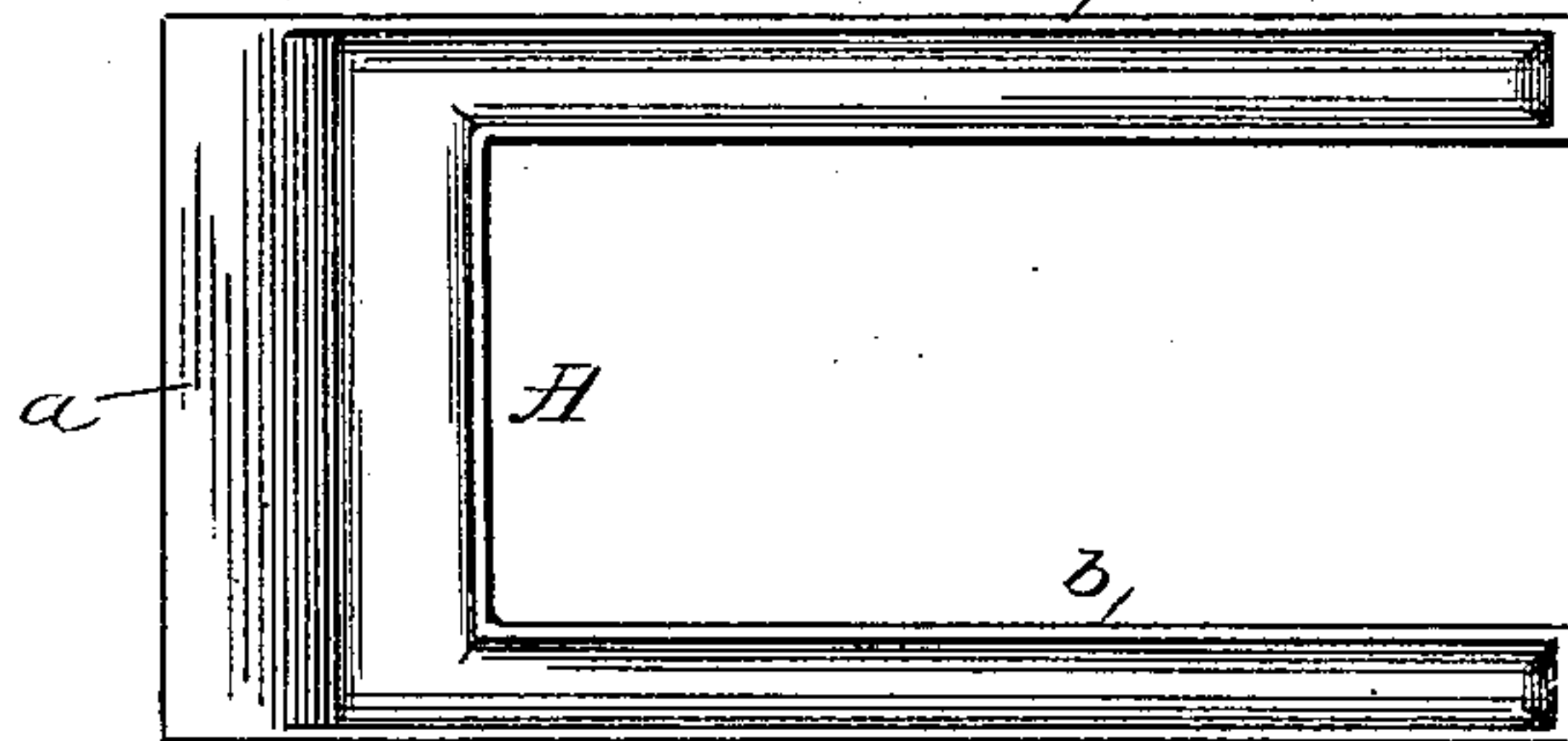


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN G. ERNST, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO
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CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 282,871, dated August 7, 1883.

Application filed March 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. ERNST, of Baltimore city, and State of Maryland, have invented a new and useful Improvement in Car-Axle Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to the lubrication of car-axle boxes. In the standard car-axle box the waste packing placed underneath the journal-box becomes heavy with oil and settles, entirely leaving the axle and resulting in the heating of the box. This renders it necessary frequently to stir up the packing and raise it on both sides. Further, the oil, when poured into the box as heretofore made, sinks to the bottom, and has to be carried up all the way therefrom to the axle by capillary attraction.

The object of my invention is to suspend the oil and the packing above the bottom of the box, to hold them nearer the box, and to prevent the packing from settling.

The invention consists in making this suspending device in the form of a pan or receptacle in the front part of the box, with gutters running back on each side. The invention is not limited to the particular construction, and the shelf or pan and gutters may be cast with the box, or may be cast separately for insertion in the old boxes, all as hereinafter set forth.

In the accompanying drawings, Figure 1 represents a side elevation of the box, with the wall partly broken away. Fig. 2 is a longitudinal vertical section with the axle in side elevation. Fig. 3 is a transverse section. Fig. 4 is a plan of the shelf detached.

In these drawings the device which sustains the packing is shown as a separate part adapted to be inserted into the ordinary box. The device consists of a pan, A, in the front part of the box, with a supporting-lip, a, which curves back over the front of the box at the lower part of the opening and supports the pan thereon. On either side from the pan are hollowed extensions or gutters b b, which run back to the rear of the axle-box, the hollows or gutters being closed at the rear ends and opening at the front into the pan. The rear

ends of the extensions are supported upon legs c c. The device may be located at any suitable height. I have shown it as set on a horizontal line a little above the lower surface of the journal; but it may be higher or lower without departing from the spirit of my invention, and the detachable shelf or pan, with its guttered extensions, may be supported by different devices than those shown and described.

As before stated, instead of making the device detachable, which adapts it to old forms of boxes, I propose, in casting new boxes, to form it integral with the box itself.

When the journal is in place under the bearing, the waste packing is packed under the axle, beneath the shelf and above, on either side. The oil poured in from the front falls into the pan, and from the pan runs into the guttered extensions, where it is held at a proper height near to the bearing and prevented from falling to the bottom of the box. The extensions also sustain the packing and prevent that from settling when it becomes heavy with oil. Plain extensions or shelves would sustain the packing equally well, but would not catch and hold the oil and prevent it from going to the bottom.

I am aware that an axle-box with sockets for holding wipers, and that separate oil-boxes adapted to sustain the packing, are not new.

Having thus described my invention, what I claim is—

1. In an axle-box, a shelf formed or placed within the box, consisting of a pan and channeled extensions, adapted to receive and hold the oil above the bottom of the box, and also to support the packing, substantially as described.

2. The movable shelf consisting of the pan A, guttered side pieces, b b, legs c c, and flange a; all as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN G. ERNST.

Witnesses:

MURRAY HANSON,
JOSEPH WINKLER.