

(No Model.)

3 Sheets—Sheet 1.

S. A. BEMIS.

CAR AXLE BOX.

No. 306,572.

Patented Oct. 14, 1884.

fig 2

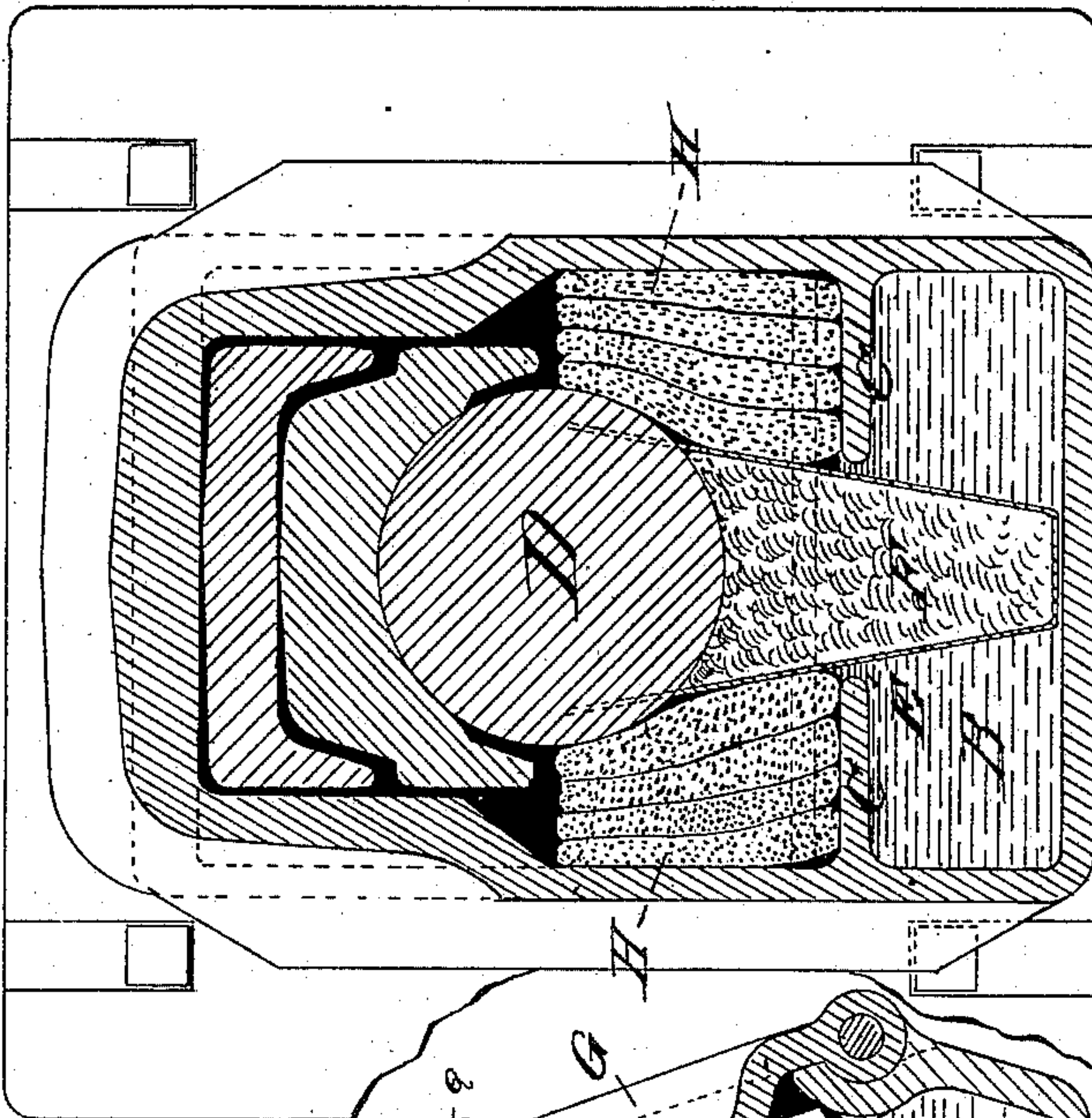


fig 6

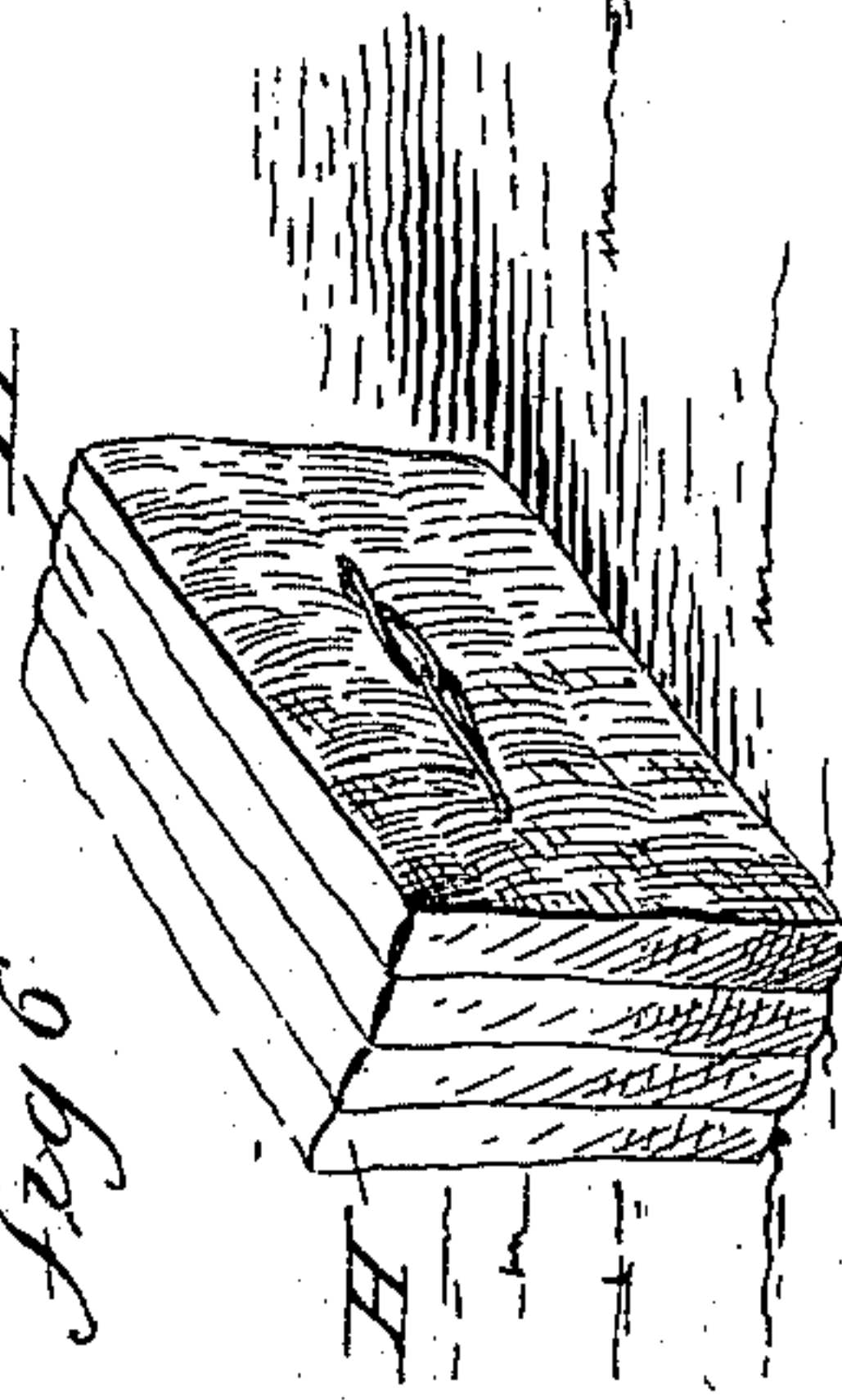


fig 1

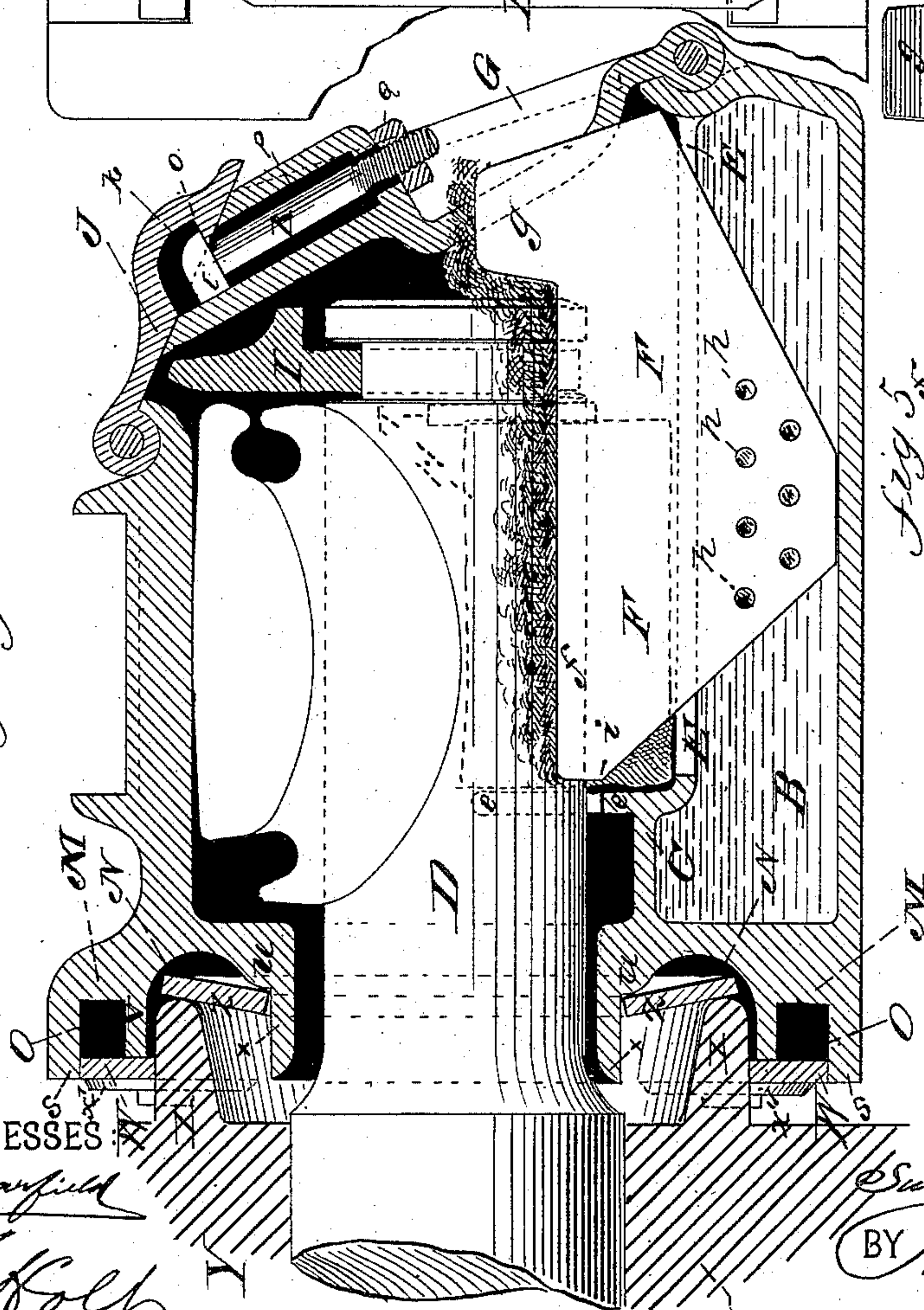
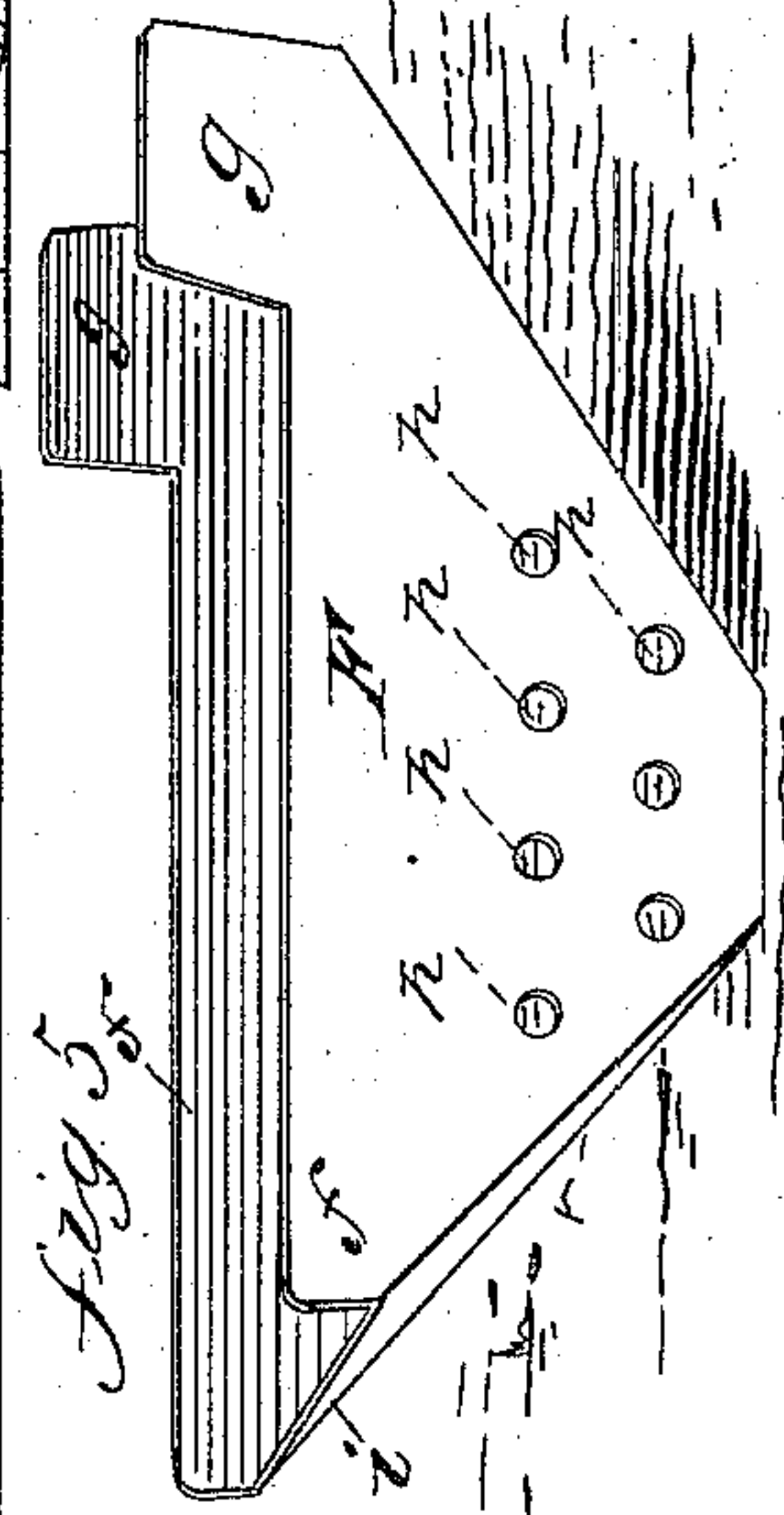


fig 5



WITNESSES

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3 Sheets—Sheet 2.

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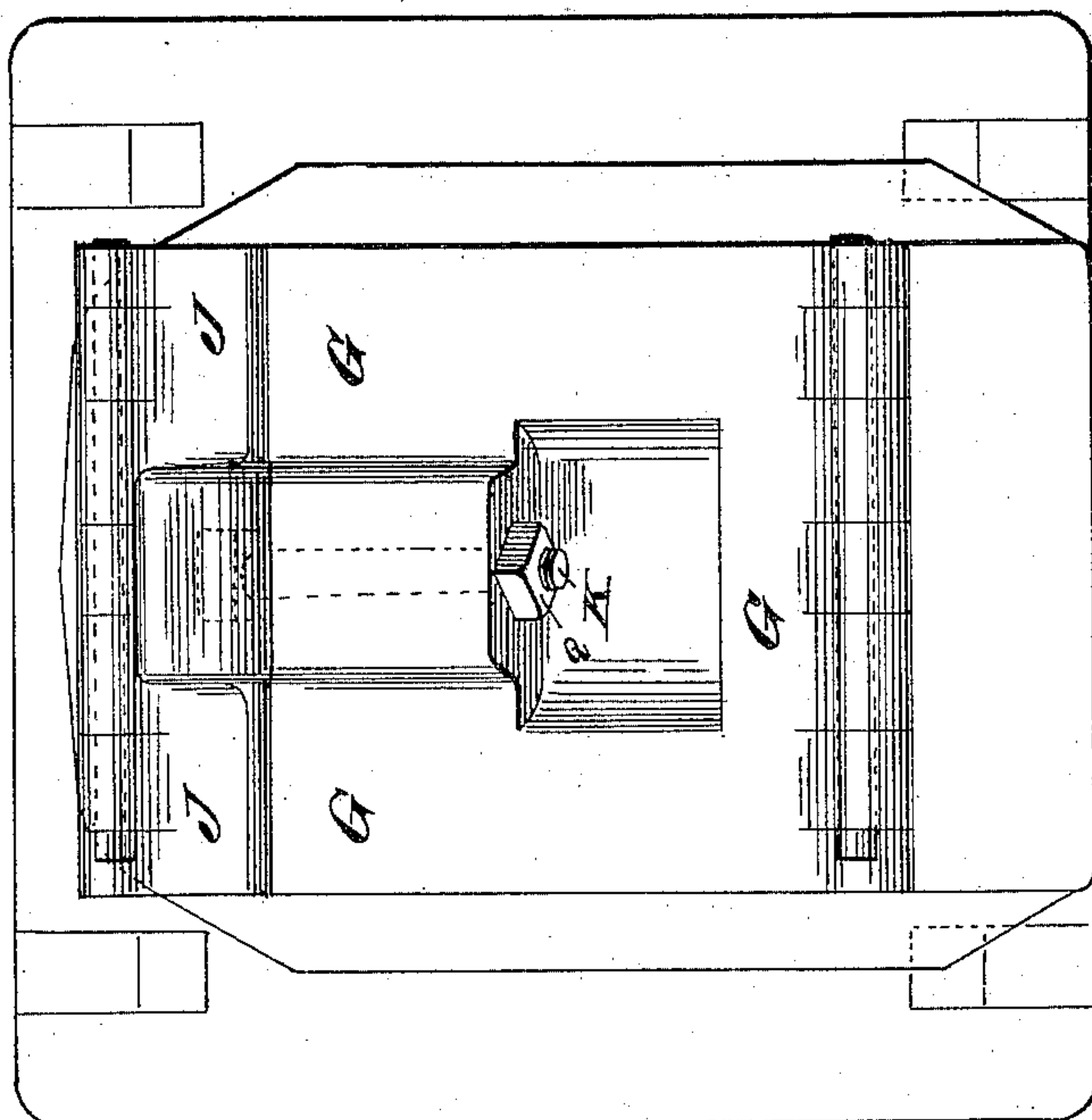
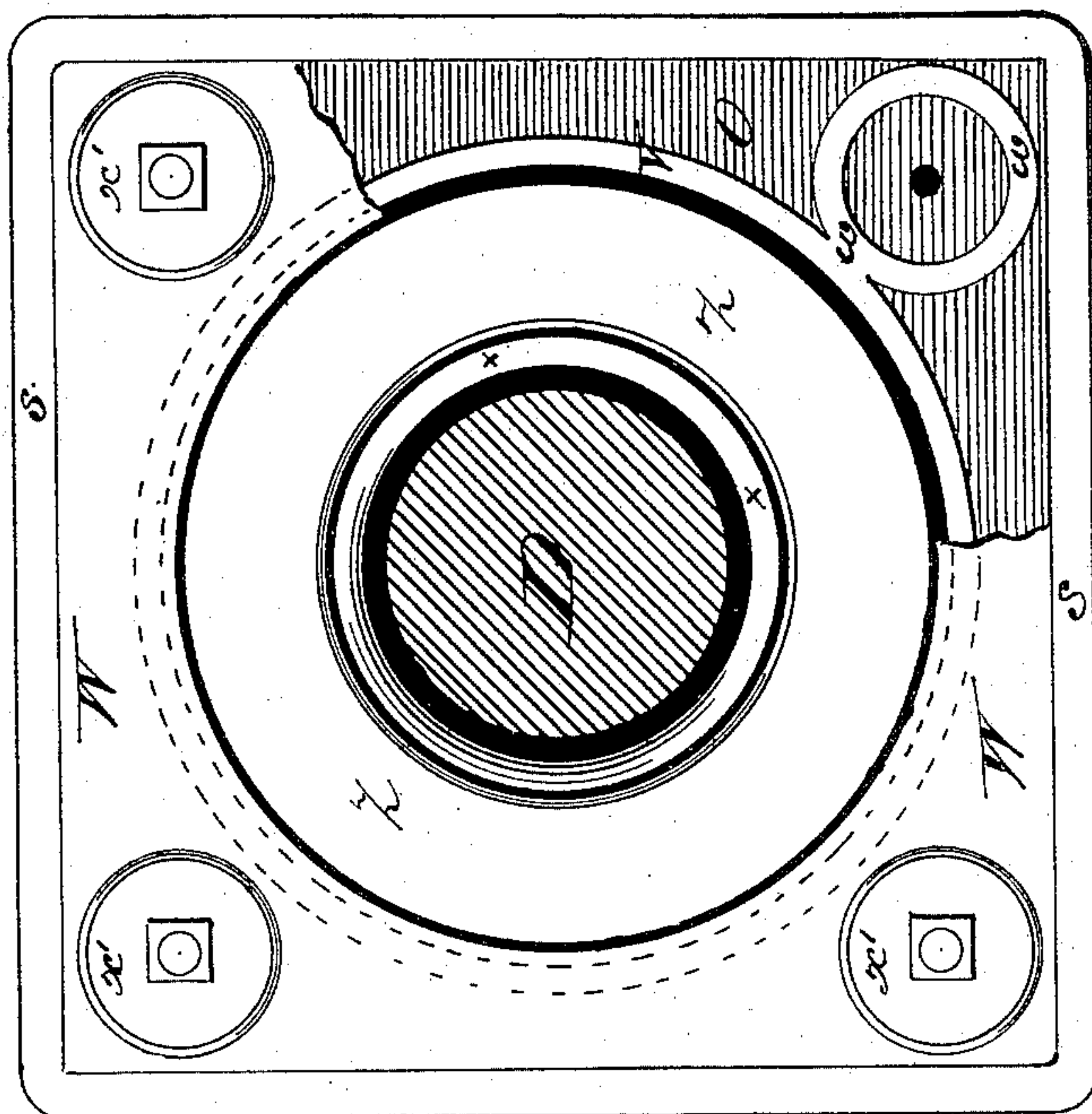


Fig 3



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(No Model.)

3 Sheets—Sheet 3.

S. A. BEMIS.

CAR AXLE BOX.

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fig 8

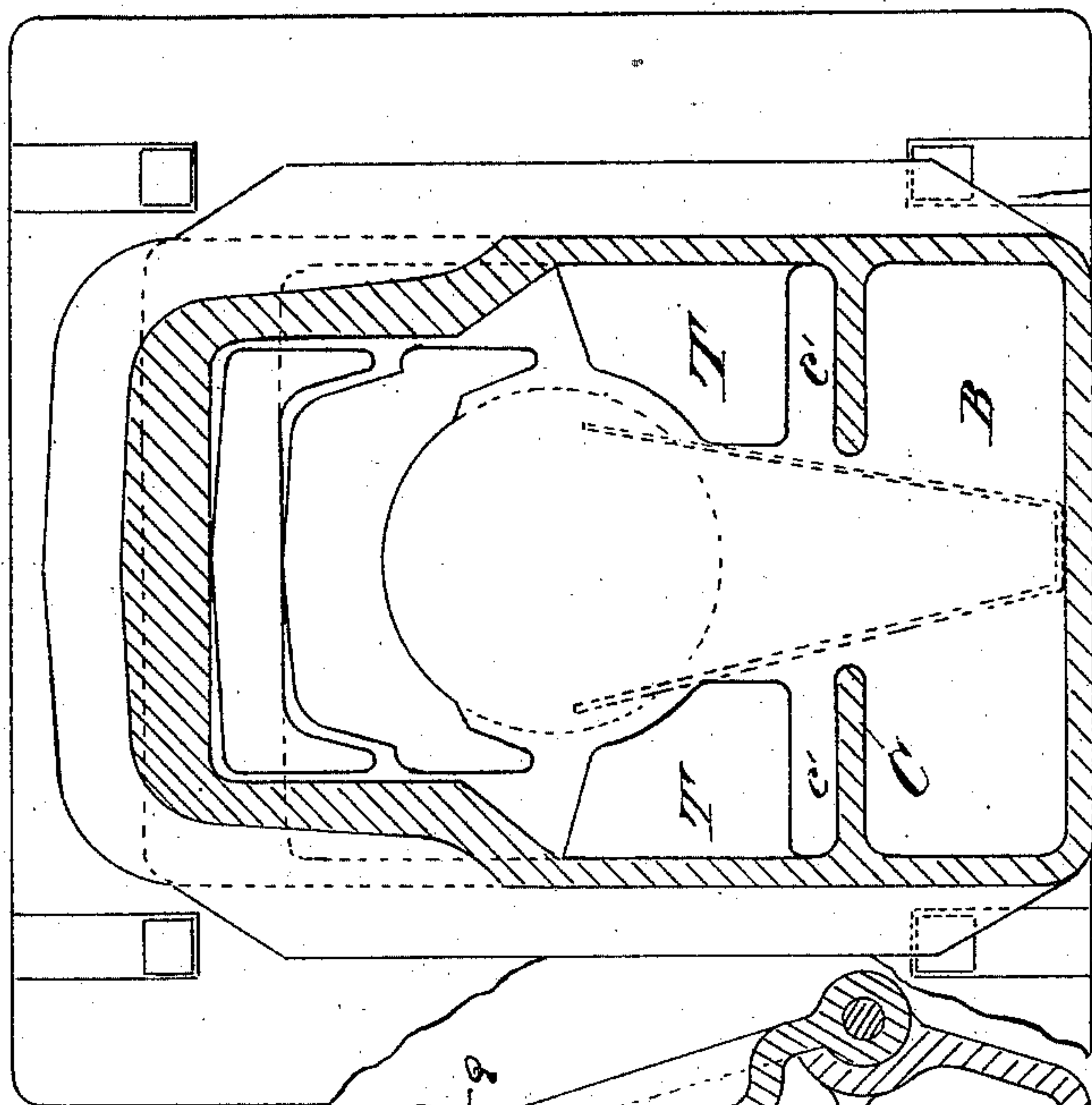
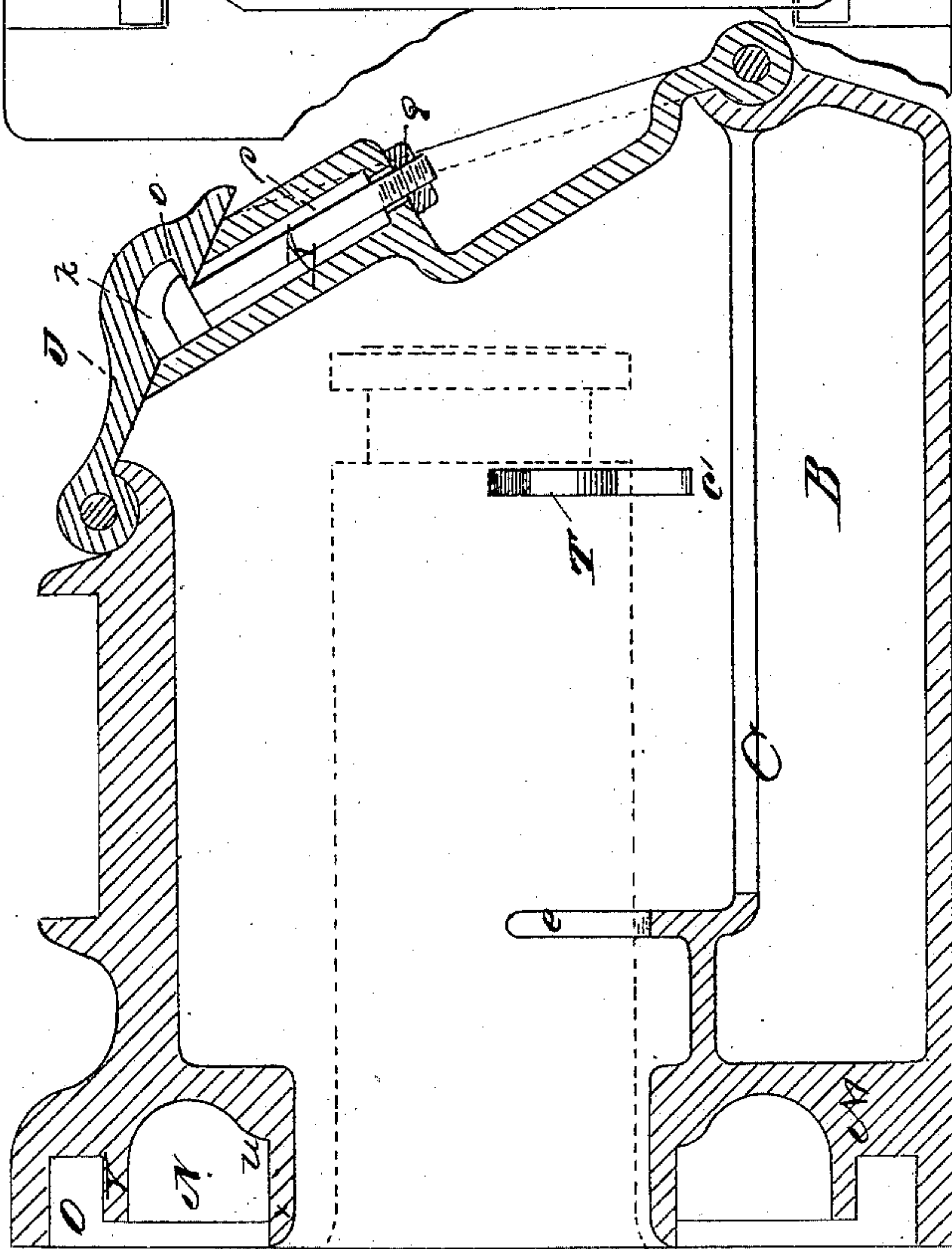


fig 7



WITNESSES:

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UNITED STATES PATENT OFFICE.

SUMNER A. BEMIS, OF SPRINGFIELD, MASSACHUSETTS.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 306,572, dated October 14, 1884.

Application filed July 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, SUMNER A. BEMIS, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Car-Axle Boxes, of which the following is a specification.

My invention relates to improvements in car-axle boxes; and the first part consists in an improved waste-holder of a configuration adapting it to, in containing sufficient waste for lubricating purposes, dispense with a large proportion of the waste hitherto essential, and adapted by its shape to have the rotation of the journal effective to draw the waste from one part of the "holder," to compensate for the packing of the waste in another part thereof, and further adapted to be acted on by the oil, in agitation, to be thrown and kept in operative connection with the journal.

The second part of my invention consists in the combination, with the oiling apparatus of a car-axle box, of oiling-pads built or formed of capillary substance, and so arranged as to provide a reserve lubricating means to come into effect upon the partial or entire failure of the free oil, to so prevent the sudden heating of the box and enable it to contain a larger supply of oil at the start.

The third part consists in an improved cap or door in two sections for giving access to the interior of the box.

The fourth part consists of an improved construction of the inner end of the box, adapting it more perfectly to form with the adjacent car-wheel a guard, to exclude all dust from the interior of the box; and the fifth part consists of a construction of the interior of the box, having for its object the formation of an auxiliary waste-chamber above the web of the oil-chamber, and adapted to be filled by waste from the front of the box when in place upon the axle, and said construction also serving to form stops to prevent the box, when jacked up, from bringing the waste-holder in such contact with the axle as to distend and impair its shape.

My invention is fully illustrated in the accompanying drawings, in which Figure 1 is a longitudinal section, in side elevation, of a car-axle box having my improvements. Fig. 2 is a transverse section of a car-axle box and of

the parts contained therein. Fig. 3 is a view of the rear end of the box with a part broken away. Fig. 4 is an end view of the front of the box. Fig. 5 is a perspective view of an empty waste-holder. Fig. 6 is a perspective view of one oiling-pad. Fig. 7 is a side sectional elevation of part of a box, showing one auxiliary waste-chamber and the stop formed by one of its walls; and Fig. 8 is a transverse section of a box in front of one end of said auxiliary waste-chamber.

B is the oil-chamber, formed by the sides of the box, and by a web or partition, C, extending across the box from side to side and below the axle D. The web has a longitudinal opening, E, therethrough below the axle, and has a flange, e, partially encircling the axle near the inner end of said opening, all as seen in Fig. 1.

F is the waste-holder, formed, as more particularly shown in Fig. 5, to have all of its sides tapering or beveled to leave a reduced bottom having sides f, adapted to partially inclose the axle D, and having at its front upper end lips g, extended from said sides f. The holder is also perforated at h h to admit the oil to its interior. The holder so formed is adapted to rest upon its reduced bottom within the oil-chamber B, to have its sides fill or nearly fill the opening E, to have its ends retained by the flange e and by the front end of the box, and to have its sides f come upon either side of the axle. The inner side, i, of holder F, when in place in the box, does not extend to the axle above it, as seen in Fig. 1, so that the holder, when retained, as above described, is loose, so far as it is free to move up to the axle until its end i comes in contact therewith. The lips g, when the holder is placed, extend in front of the end of the axle to be exposed upon the opening of the cap G of the box, and in position to be filled or emptied without removal. The holder F, when filled, has a surplus of waste contained between the lips g, and as any waste becomes packed under the axle the rotation of the axle tends to draw the waste from between the lips g, to maintain a uniform contact of waste with said axle. It will also be seen that any space between the holder and the journal, arising from the shrinking or packing of the waste, permits a movement of the holder, and any motion of