

S. F. ALLEN.
Car-Axle Box.

No. 57,657.

Patented Sept. 4, 1866.

Fig. 1.

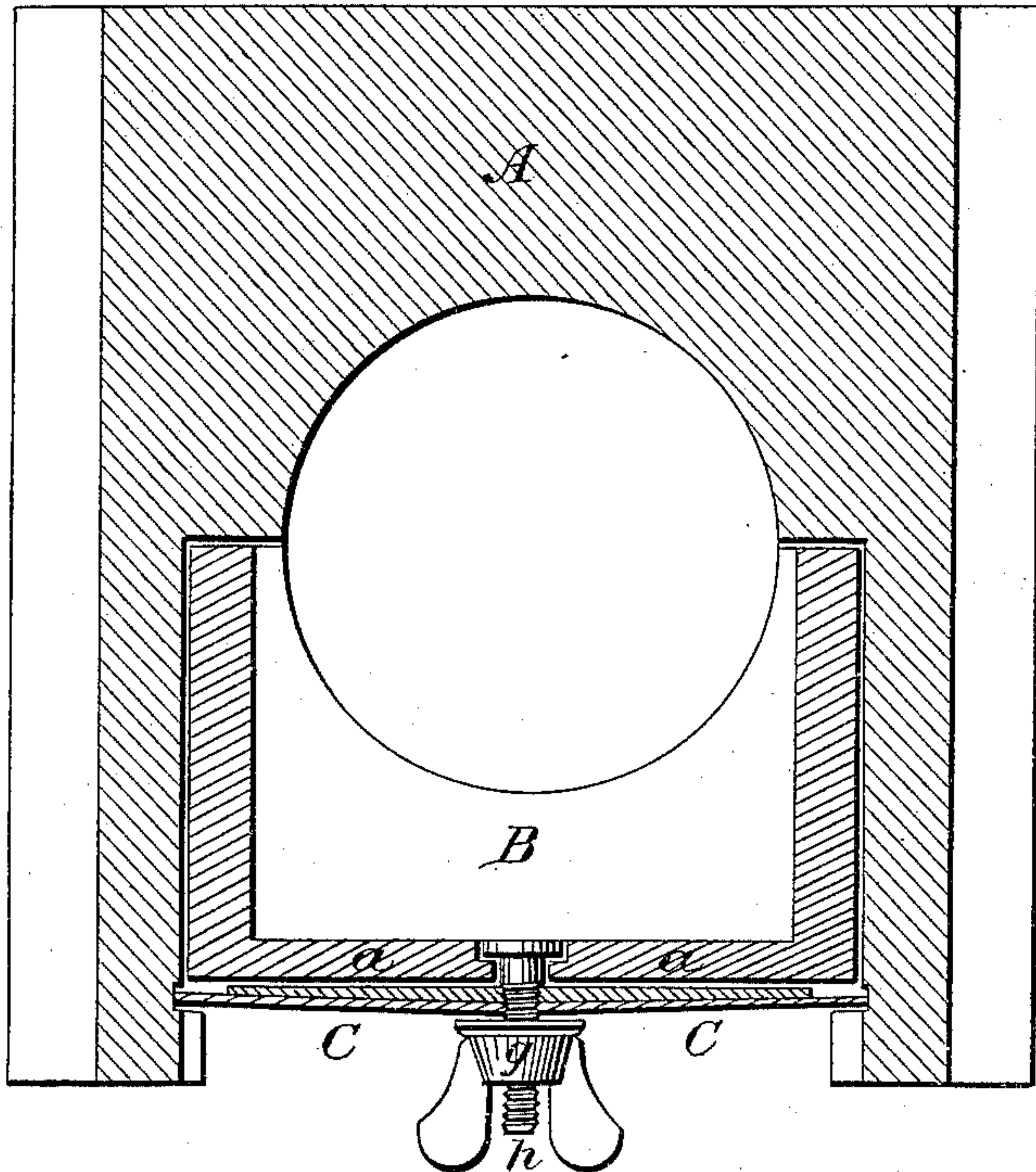


Fig. 2.

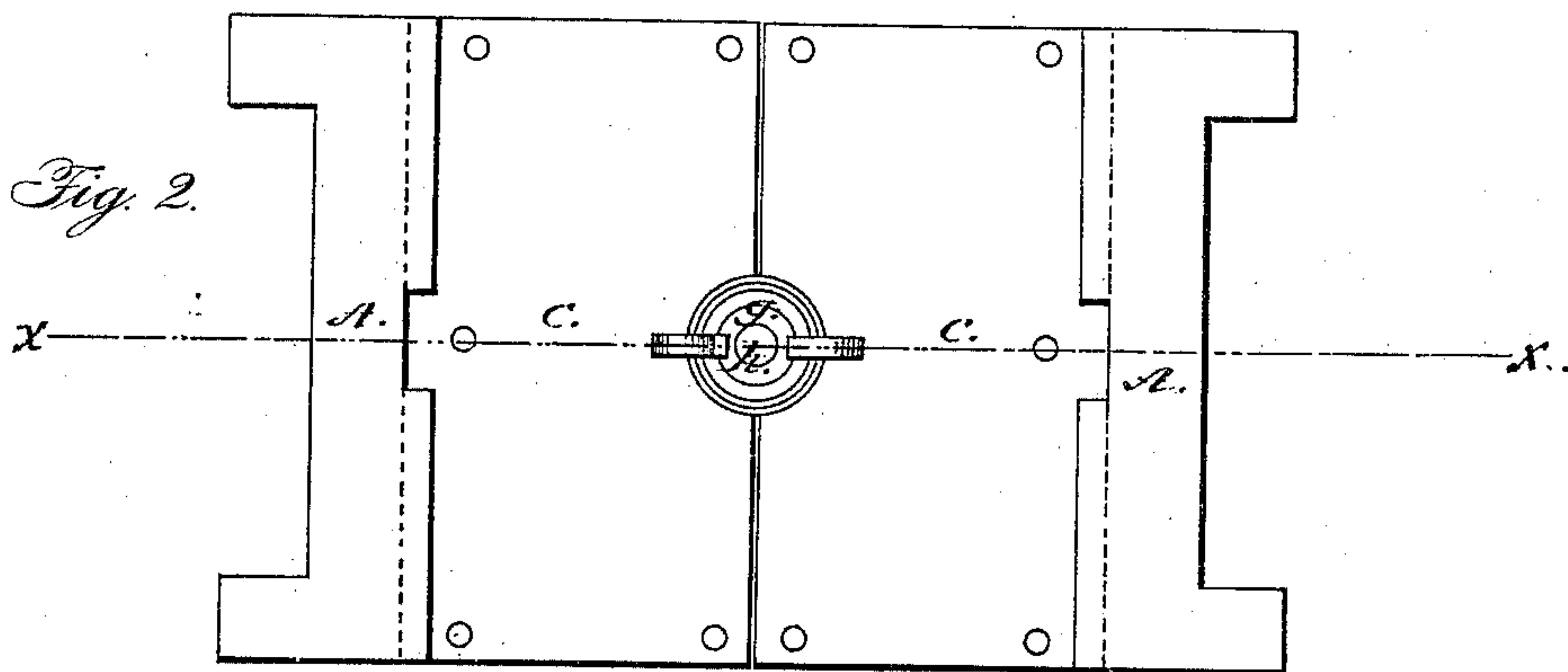
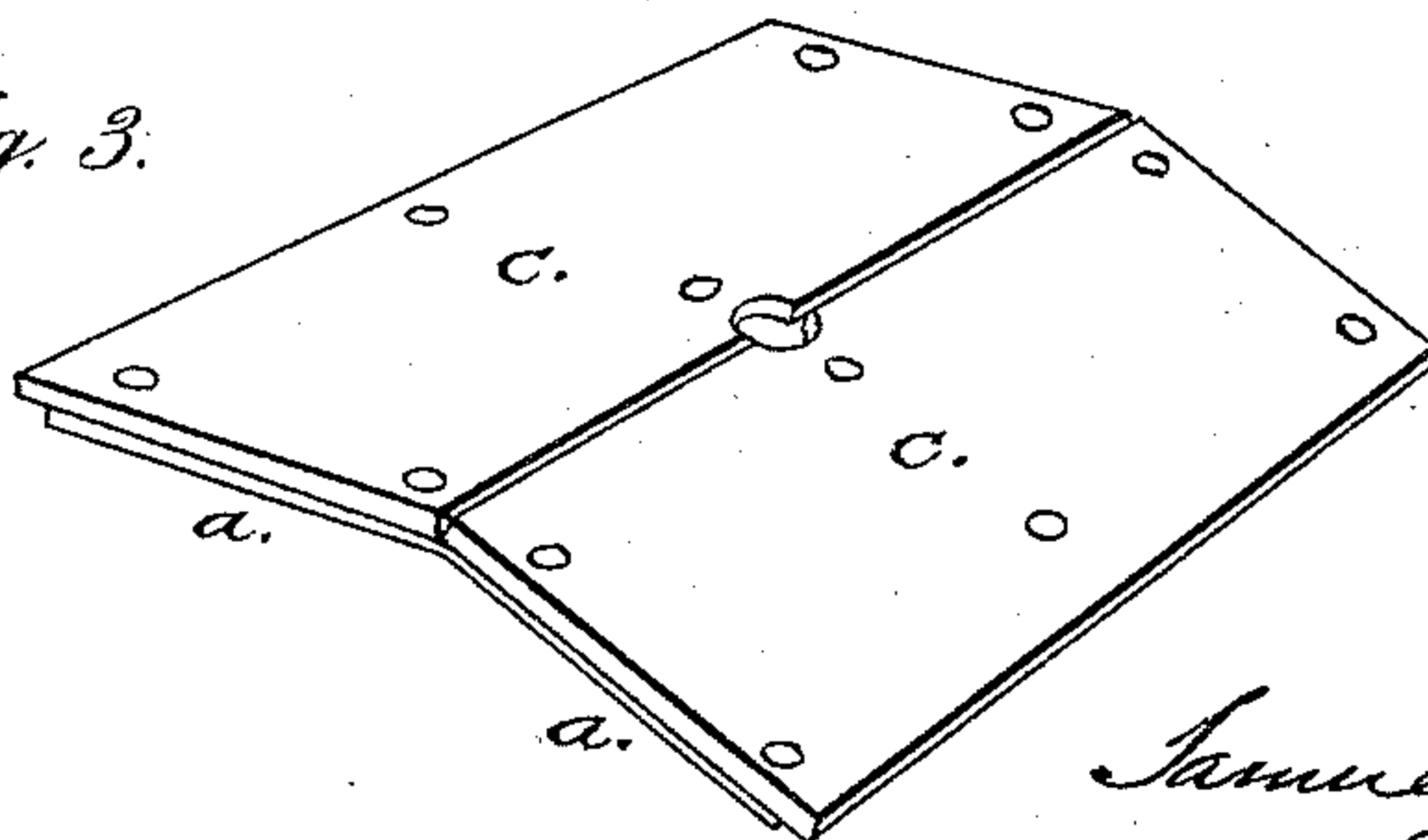


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

SAMUEL F. ALLEN, OF CHICAGO, ILLINOIS.

IMPROVED AXLE-BOX.

Specification forming part of Letters Patent No. 57,657, dated September 4, 1866.

To all whom it may concern:

Be it known that I, SAMUEL F. ALLEN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Axle-Boxes for Locomotive Engines, Trucks, and Drivers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical sectional view of an axle-box having my invention applied to it. Fig. 2 is a bottom view of the box. Fig. 3 is a perspective view of the hinged plates for securing the oil-cellar in its box.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a novel improvement in the construction of axle-boxes for the truck-wheels of railroad-cars and the drivers of the locomotives.

The object of my invention is to fasten the lubricating oil-cellar within the axle-box in such manner that this cellar can be readily and quickly removed when fresh oil and new packing are required, at the same time making provision for preventing the fastening from becoming loose in consequence of the jars to which it is subjected; also, to provide for setting up the oil-cellar after long use, for the purpose of preventing any rattling or looseness thereof, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents an axle-box, which may be constructed in the usual manner, and B is the movable oil-cellar, which may also be constructed in the usual manner, for containing the oil or lubricating packing. This oil-cellar is constructed with vertical tenons on its sides, which enter corresponding grooves which are formed in the inside surfaces of the flanges of the box A, and thus prevent any lateral displacement of the oil-cellar. This oil-cellar is kept firmly in place in the box A by means of a removable bottom, which is constructed of two rectangular plates, C C,

united together by means of a piece of leather, *a*, or any other equivalent substance which will answer as good a purpose. The leather forms a hinge for the two plates C C, and allows the ends of these plates to be inserted into grooves *c c*, which are formed in the flanges of the box A, as shown in Figs. 1 and 2. When thus inserted in place beneath the oil-cellar B the plates C C are confined by means of a jam-nut, *g*, which has a flanged head, and which is applied to a screw, *h*, that projects down from the center of the cellar B and passes through the holes *s*, which are made through the center of the removable bottom. By screwing this jam-nut *g* up tightly against the plates C C at their hinged junction, they will be spread apart and caused to enter the grooves *c c* in the flanges of the box A, at the same time pressing the oil-cellar up and holding it firmly in position, as shown in Fig. 1.

The object of using leather as a means for connecting the two plates together is to have a slightly-yielding cushion, which will, by its expansion, hold the jam-nut *g* down firmly on the threads of the screw-pin *h*, and by the friction thus produced prevent the nut from liability of jarring loose. The leather *a* is therefore made to serve the double purpose of a hinge for the plates C C, and also a cushion.

The oil-cellar is removed from the box A by unscrewing the jam-nut *g* and detaching the plates C C.

It is found by experience that engine-men often allow the packing in the oil-cellar which are applied to axle-boxes in the old way to become dry and worn out, on account of the trouble and loss of time required to remove the oil-cellar from their boxes and replace them again. The consequence is, that the journals and brass linings of the boxes are often seriously cut and worn. But by my mode of securing the oil-cellar in their axle-boxes these objections are overcome, and the cellars are kept safely and firmly in their proper places.

The oil-cellar can be readily tightened by means of their jam-nuts when they have acquired any lost motion, so that all rattling noise may be readily avoided.

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

1. Securing oil-cellars in place in their boxes by means of removable bottoms, which are constructed and applied substantially as described.

2. The combination of the fixed pin *h* and

the jam-nut *g* with the hinged plates *C C* and a suitable cushion, which is interposed between said plates and the bottom of the oil-cellar, substantially as described.

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Witnesses:

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