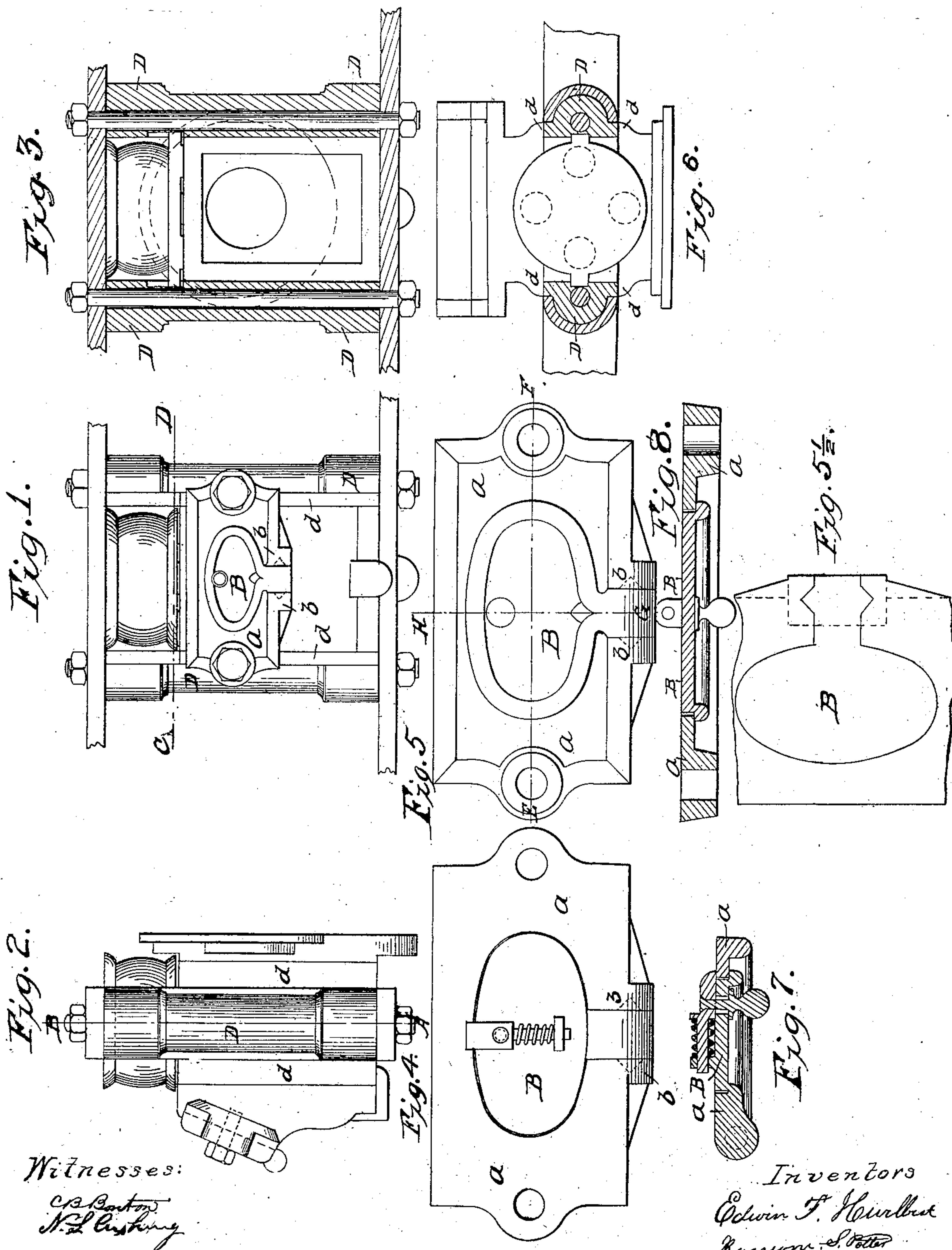


E. F. HURLBUT & R. S. POTTER.  
OIL BOX FOR RAILWAY CARS.

No. 42,732.

Patented May 10, 1864.



Witnesses:

C. B. Boston  
N. S. Cushing

Inventors  
Edwin F. Hurlbut  
Russell S. Potter



# UNITED STATES PATENT OFFICE.

EDWIN F. HURLBUT AND RANSOM S. POTTER, OF CHICAGO, ILLINOIS, ASSIGNORS TO THEMSELVES AND NATHL. S. BOUTON, OF SAME PLACE.

## IMPROVEMENT IN OIL-BOXES FOR RAILROAD-CARS.

Specification forming part of Letters Patent No. 42,732, dated May 10, 1864.

*To all whom it may concern :*

Be it known that we, EDWIN F. HURLBUT and RANSOM S. POTTER, of the city of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Oil-Boxes for Railway-Cars; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is front view of box complete in its place in iron frame with a spring over it. Fig. 2 is a side view of Fig. 1. Fig. 3 is cross-section of Fig. 2 through lines A B. Fig. 6 is transverse section of Fig. 1 through lines C D. Fig. 4 is the back of the cover, with door in its place. Fig. 5 is the face of Fig. 4. Fig. 5½ shows the lines of the hinges of the door. Figs. 7 and 8 are cross sections of Figs. 4 and 5.

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

The nature of our invention consists in making a door in the cover or lid of the oil-box, by which means the inside of the box can be examined, the journal of the axle seen, the waste picked or loosened up, and the box filled with oil, without taking off the cover, and at the same time having the door so made as to prevent it from getting loose or wearing out because of the jar occasioned by the motion of the cars in running; also, by making the lugs or ears of the oil-box loose, so that they answer the purpose also of a jaw, in which the box may slide, thus preventing the great wear and loss of bolts consequent upon the mode heretofore practiced, and for other reasons, more fully hereinafter described.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

The cover-frame A, Figs. 4 and 5, is first cast, having, by means of a core or other device, a slot cut in it to receive the hinge of the door, and by means of the core which forms the slot forming at same time in each end of the cover-frame this cut, an indentation, as shown in Figs. 2, 4, and 5, by dotted lines *b* and more fully in Fig. 5½, the shape preferred by us being that of a conic section three-eighths of an inch

at base and same in depth. Others may prefer different sizes. The cover-frame thus made is then molded with the pattern of the door, and remains in the mold after the door-pattern is drawn. When the mold is filled with the molten iron, the indentations heretofore described in the cover-frame are filled; also, thus making upon each side of the hinge of the door a small cone, which holds the door firmly in its place in the cover-frame. Upon each side of the box there are two strips cast, Figs. 1, 2, and 6, letter *d*, which are to act as guides to hold the box in its proper place in the truck-frame against the lugs, and by means of said strips or their equivalent allow the box when used with a spring upon it to move vertically between the lugs. The lugs, Figs. 1, 2, 3, and 6, letter *D*, should be long enough to fill the space in the end of the trucks when the box is placed vertically, said vertical space being greater or less on account of box used with or without a spring over it.

The advantages claimed and derived by this mode of making oil-boxes, are, first, that by use of the door in the cover the labor of the men who at present take off and replace the covers for the oiler are entirely dispensed with; also, that under the system heretofore in use there are large losses of bolts and covers by reason of the continual wear occasioned by so frequently taking out and returning the bolts, which losses are entirely obviated by use of the improved cover, thereby making a large saving to railroads in the course of a year; second, that by use of the loose lugs or ears, letter *D*, the great wear in all iron truck-frames, and consequent loss of bolts necessary to retain the box with lugs or ears cast on them in proper position, is saved; also, in cases requiring a pair of wheels to be removed from the truck by taking out the bolt front of the box on each end of the axle, the wheels can be taken away, while in trucks as heretofore made all the bolts have to be removed, which allows the iron frame to separate, making great inconvenience, as also waste of labor in replacing the same; also, by use of loose lugs we are enabled to place the spring over the box in iron truck-frames, which cannot be done except by increased expense under



the plan heretofore in use, all of which will effect large savings to railroad companies.

Having thus fully described our invention, we do not claim the particular place or manner in the frame of fastening the door, for the conical points and indentions may be received, or the door may be cast upon a wire in the frame; but

What we do claim as new, and desire to secure by Letters Patent, is—

1. Casting or fastening a door or lid into a

frame, substantially as shown, and for the purposes described.

2. The combination of the loose lugs or ears, letter D, with the oil-box, substantially as shown, and for the purposes described.

EDWIN F. HURLBUT.  
RANSOM S. POTTER.

Witnesses:

C. B. BOUTON,  
N. S. CUSHING.