(No Model.)

H. S. PUGSLEY.

JOURNAL BOX PROTECTOR.

No. 421,610. Patented Feb. 18, 1890.

Fig. 1.

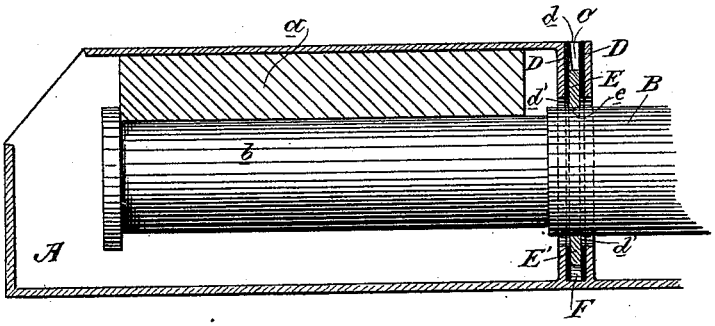
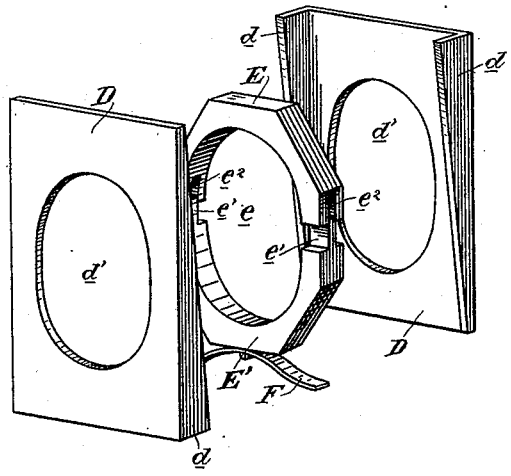


Fig. 2.



Witnesses;
J. H. Nourse
H. C. Lee.

Inventor,
Henry S. Pugsley,
By Dewey & Co
Attys

UNITED STATES PATENT OFFICE.

HENRY S. PUGSLEY, OF OAKLAND, CALIFORNIA.

JOURNAL-BOX PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 421,610, dated February 18, 1890.

Application filed November 15, 1889. Serial No. 330,459. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. PUGSLEY, a citizen of the United States, residing at Oakland, Alameda county, State of California, have invented an Improvement in Journal-Box Protectors; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to axle or journal boxes, especially those which are used in railway construction.

My invention consists in the novel construction and arrangement hereinafter fully described, and specifically pointed out in the claims, and the object of which is to so protect the inner end of the box as to prevent the oil or grease from escaping and the dust from entering.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a vertical longitudinal section of a journal-box, showing the application of my invention to its pocket C. Fig. 2 is a perspective view of my protector, the parts being shown separated.

A is an axle-box of a well-known pattern, having in its top the usual bearing *a* for the journal *b* of the axle B. The box A is cast at its inner end, so as to form an open-topped pocket C, having through it the oblong hole or aperture, through which the axle passes. It is customary to insert in this pocket a plate of wood, having a hole through it for the axle, said plate being for the purpose of keeping the grease in and preventing the entrance of dust, objects, however, which it effects but poorly. My invention dispenses with this ordinary plate and substitutes therefor a protector which accomplishes the desired objects more satisfactorily.

D are two similar plates of any suitable material, each of the plates having side flanges *d*, which are beveled or inclined in opposite directions—that is to say, the flanges of one plate incline in the direction opposite to the flanges of the other plate—so that when the two plates oppose each other the beveled flanges act as reverse wedges to tighten and hold both plates in place. Each of these plates is provided with an oblong hole *d'*, which corresponds to the oblong hole through the pocket C at the inner end of the box. The plates D are fitted in this pocket as follows: Before the axle is inserted one of the plates is set down in the pocket against one of its walls. The other plate is then set in the pocket against the other wall, and on account of its oppositely-inclined flanges coming in contact with the flanges of the first plate the two plates, when adjusted fully to place in the pocket, are forced apart by each other, so that each plate is pressed tightly against the wall of the pocket, making a tight joint, and also against the end walls of the pocket, thus making a perfectly tight joint all around. They also provide for a smooth inner surface, in which the blocks, now to be described, are seated. These blocks, which are represented by E and E', are of any suitable material, and are made in corresponding halves or two parts, each provided with a semicircular groove, forming, when the blocks come together, a circular hole *e*, through which the axle passes. The upper block E encircles the upper portion of the axle, and the lower block E' encircles the lower portion of the axle, and the joint or line of separation between the two is covered by a tongue *e'* in the lower block, fitting in the groove e^2 in the upper block, so that the space between the two blocks is kept constantly closed, and yet the plates may have their necessary independent play. The lower block is held to its seat on the axle by a spring F in the bottom of the pocket C, and the upper block may have a similar spring or may be held to place by its own weight. These blocks fit just snugly enough between the bearing-plates D to provide for their necessary sliding movement.

It will be seen from this construction that a sufficiently tight joint is formed between all the parts, which will prevent the grease from escaping and will prevent the dust from entering. Only a small portion of the grease will find its way along the axle, itself sufficient to lubricate the bearings of the encircling block E and E'.

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

1. In combination with the journal-box having at its inner end a pocket C, the apertured bearing-plates D, fitted in said pocket against its walls, and having oppositely-in-

clined side flanges, whereby said plates wedge themselves in place and make a tight joint with the walls of the pocket, and the independent movable blocks E and E′, fitted between the plates in the pocket and encircling the axle, substantially as herein described.

2. In combination with the journal-box having the pocket C at it its inner end, the apertured bearing-plates D, fitted in the pocket, and having oppositely-inclined side flanges, whereby said plates wedge themselves in the pocket and form tight joints against its walls, the independent movable blocks E E′, fitted between the plates D in the pocket and encircling the axle, and the tongue in one block and groove in the other, whereby their line of separation is kept closed, substantially as herein described.

3. In combination with a journal-box having a pocket at its inner end, a protector therefor, consisting of the apertured bearing-plates D, having oppositely-inclined side flanges, whereby said plates wedge themselves against the walls of the pocket and form tight joints therewith, the independent movable blocks E E′, fitted in the pocket between the plates D and encircling the axle, the tongue and groove or telescopic connection between the blocks, whereby their line of separation is kept closed, and the spring F in the bottom of the pocket for holding the lower block up to the axle, substantially as herein described.

In witness whereof I have hereunto set my hand.

HENRY S. PUGSLEY.

Witnesses:
S. H. NOURSE,
H. C. LEE.