

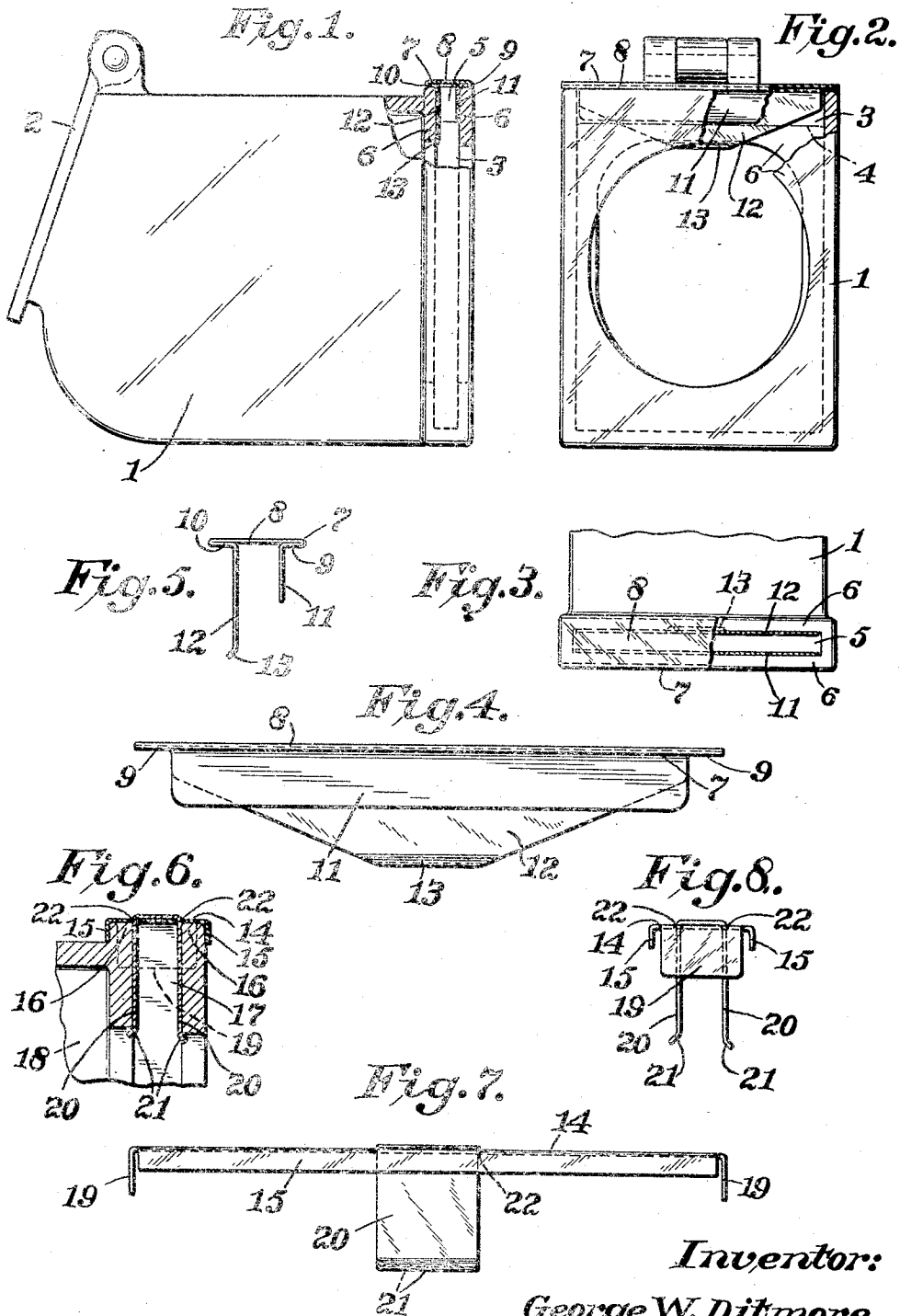
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DUSTGUARD CAP OR CLOSURE

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UNITED STATES PATENT OFFICE

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DUSTGUARD CAP OR CLOSURE

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My invention relates to new and useful improvements in dust guard caps or closures, and especially to a dust guard cap, wherein it is not necessary in any way to change the slot or opening in the journal box in which the cap is to be fitted.

The present application is a companion to one filed by me of even date herewith, the companion application showing dust caps or guards of a similar nature but wherein it is necessary to make a slight change on the journal box to hold or lock the cap in position.

One of the objects of the present invention is to provide a dust guard cap that may be quickly fitted in the journal box and directly over the dust guard to thereby prevent any dirt or grit working down in the journal box and packing the box.

As is well known, the common practice is to simply place a wooden block or wedge in the opening in the journal box above the dust guard to keep out any foreign matter, but it is also well known that the cars in running over the frogs and switches will cause these wooden wedges or plugs, due to the continual vibration, to work or jar out of place and dirt or dust will work in at the top of the dust guard and, therefore, in a way defeat the purpose of the dust guard.

Still another object of the present invention is to provide a dust guard cap (preferred form) that is bent from a single sheet of metal and may be fitted over the opening of the dust guard chamber without in any way changing the construction of the journal box.

Still another object of the invention is to provide a dust guard cap that will tightly cover the slot or opening in the journal box over the dust guard. This dust guard cap is provided with an extending leg or lip that may be engaged under the web beneath the top opening in the journal box, so that the dust guard cap can not in any way work loose or be jarred from its position.

Still another object of the invention is to provide a dust guard cap which, in its preferred form, is made from a single strip of metal or may be made in a modified form, whereby the legs may be fitted within the

dust guard cover and the entire cap quickly and readily slipped in position.

Still another object of the invention is to provide a dust guard cap that will be exceedingly cheap to manufacture after the dies have once been made, so that the guard may be sold cheaply in commercial quantities.

Still another object of the invention is to provide a dust guard cap that will effectively keep out the dust or foreign substances and will remain in place until removed by a brakeman or other artisan.

With these and other objects in view, the invention consists in certain new and novel arrangements and combination of parts, as will be hereinafter more fully described and pointed out in the claims.

Referring now to the drawings showing a preferred embodiment and a modified form,

Fig. 1 is a side elevation of a journal box, a part being broken away to show in section the dust guard cap in position;

Fig. 2 is a rear end view with parts also broken away for the sake of clearness of illustration;

Fig. 3 is a fragmentary top plan with a part of the top surface of the dust guard cover being broken away to show the position of the same;

Fig. 4 is a side elevation of my improved dust guard cap;

Fig. 5 is an end view of the same;

Fig. 6 is a fragmentary sectional view of a modified form of cap showing the same in position;

Fig. 7 is a side elevation of the same;

Fig. 8 is an end view of the modified form.

Referring now more specifically to the drawings, there is shown in Fig. 1 a journal box 1 with the usual lid 2, while to the rear there may be seen the compartment 3 in which the dust guard 4 is to be fitted. The compartment 3 is always open at its top, as at 5, and there are shown the usual strengthening webs or flanges 6 which, of course, are integral with the journal box casting.

In this top opening 5 it is the common practice to insert a wooden wedge or stick, so that dirt and dust will not enter and work down

beyond the guard and into the packing within the journal box.

The present invention contemplates a dust guard cap or cover for this opening that may be placed in position at any time or may be quickly removed by a workman but, on the other hand, will never jar loose or be lost while the car is in service.

As mentioned in the forepart of the specification, where woden blocks or wedges are used, a continual jarring of the truck as it goes over frogs and switches will cause the old form of closure to loosen and work out of place and the car will often travel many thousands of miles without any cover whatever over this dust guard chamber.

Referring now to the gist of the invention, Figs. 1 to 5, and more specifically for the moment to Fig. 4, there will be noticed a dust guard cap 7 which comprises the cover plate 8 which is bent under and inwardly at its edges, as at 9 and 10. The bent-under portion 9 then extends downwardly to form a short leg 11, while the opposite leg 12 is formed integral with the bent-under portion 10 and is somewhat greater in length than the leg 11. It will also be noticed that there is a small outwardly extending lip 13 at the end of this outer leg 12.

Still referring to Fig. 4, it will be seen that the leg 11 terminates a short distance from the respective ends of the cover plate 8, while the leg 12 also terminates short of the ends of the plate 8 and is also cut on an angle toward the lip 13. This leaves the two ends of the cover projecting out over the end walls of the opening, as will be understood from Fig. 2. Also, by cutting the leg 12 at an angle, material is saved and, at the same time, there will be enough spring in the metal of the leg to cause the same to remain in position, after it has once been placed in the opening, as will be now mentioned.

As will be readily apparent, to insert the dust cap cover in position, it is only necessary to spring the two legs inwardly or toward each other, so that they will fit within the slot or opening 5 and then push down on the cover plate 8 until the inwardly bent portions 9 and 10 rest against the flanges 6. The one leg 11 will extend well down one of the flanges 6 while the other leg 12 will not only lie flush with its flange, but the lip 13 at its end will swing under the lower edge of its flange, as will be seen from Fig. 1.

Of course, the distance between the two legs 11 and 12 is such that it will make a tight fit within the opening 5 and after the lip 13 has sprung under the flange or web 6, it will stay this way until the dust cap cover is pried or pulled from position. Thus, it will be seen that after the dust guard cap is once in position, it will remain there until intentionally removed. It will thus be seen that the cover is made from a sheet of metal

and so bent that it will completely cover the dust guard opening and will be tightly held after once being sprung into place.

I have shown a slightly modified form in Figs. 6, 7 and 8, wherein the cover plate 14 is shown with the downwardly extending flanges 15, these flanges being intended to be sprung down over the top of the webs 16 about the opening 17 in the journal box 18. This cover plate 14 has also the downwardly extending lips 19 at its opposite ends to pass over the end walls of the dust guard opening of the journal box, as may be seen in the dotted lines of Fig. 6.

Instead of the dust guard cap having an integral leg to engage the under surface of one of the flanges about the upper edge of the opening, I employ a separate substantially U-shaped member having the two legs of the same length and are each provided with the lips 21. These U-shaped legs 20 are passed through small openings 22 formed in the cover plate 14 and about centrally of its length, the legs being of sufficient length so that the two small lips 21 will each engage the under surfaces of the respective ribs 16.

In the same manner, to insert the cap in position, it is only necessary to slightly spring these legs 20 together and force them down within the top opening of the dust guard chamber so that when the cover is in its final position, the little lips 21 will engage the lower edges of the ribs or flanges about the dust guard opening and the dust guard cover will be held in this position unpried or pulled from the opening.

From the foregoing, it will be seen that after the dies have once been made, these dust guard caps, either in the preferred or modified form, may be quickly and readily struck from sheet metal and made in large quantities at a relatively low price. Furthermore, they will effectively keep the dust or dirt from getting in around the dust guard and into the journal box and will never jar from position or work loose.

I am aware that it is old to put in plugs over the dust guard and to even form separate covers out of metal, and I do not claim my invention broadly as such, but what I do claim as new and desire to secure by Letters Patent is:

1. A dust guard cap or closure formed of sheet metal having a top portion, downwardly extending legs, the horizontal length of the legs being less than the length of the top portion and overhanging means at the ends of the top portion adapted to overlap the end walls about the dust guard opening of the journal box, one of the legs provided with an offset lip at its lower end and adapted to engage an inner web of a

journal box casting to thereby hold the dust guard cap in place.

2. A dust guard cap or closure formed of sheet metal comprising a cover and legs spaced inwardly from the side edges of the cover, one of the legs being longer than the other and the longer of the legs being provided with a lip at its end, the said legs being of a resilient nature whereby said legs are adapted to resiliently engage the walls about an opening in a journal box, and the lower lip adapted to underlie a portion of a journal box casting.

3. A dust guard cap or closure formed of a single sheet of metal comprising a top cover plate, the metal being bent back under the cover plate and then downwardly to form two legs, one of said legs having an offset lip at its lower end, and one of said legs being tapered from its side edges to the lip.

4. A dust guard cap or closure comprising a cover plate, downwardly extending flanges along the side edges and a downwardly extending flange at each end to overlie the walls about the opening of a dust guard chamber, downwardly extending legs spaced inwardly from the outer side edges of the cap and being of a spring nature, and one of the legs provided with a lip at its outer end adapted to underlie a part of the journal box casting to thereby tightly hold the cover in place.

5. A dust guard cap comprising a top cover, downwardly extending flanges along its side edges and a downwardly extending flange at its end, a substantially U-shaped member fitted down through said cover, and the said legs provided with lips at their outer ends adapted to underlie a part of the journal box casting.

In testimony whereof I affix my signature.
GEORGE W. DITMORE.

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