

Aug. 4, 1931.

W. F. CREMEAN

1,817,238

DUSTGUARD

Filed March 11, 1929

Fig. 1.

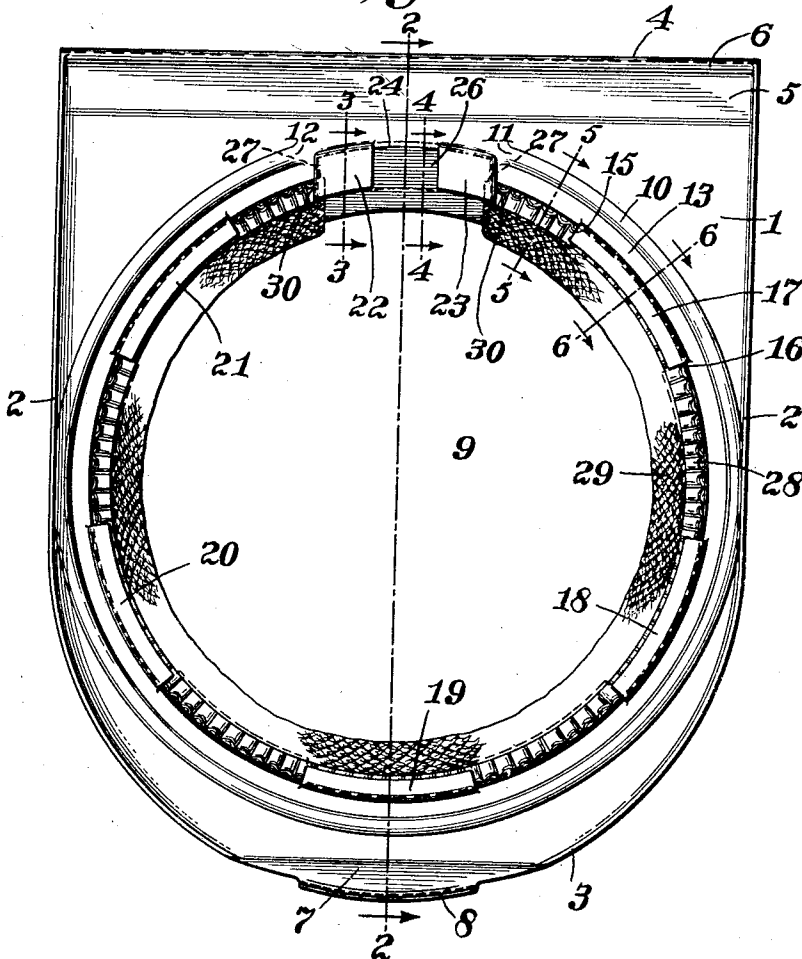


Fig. 2.

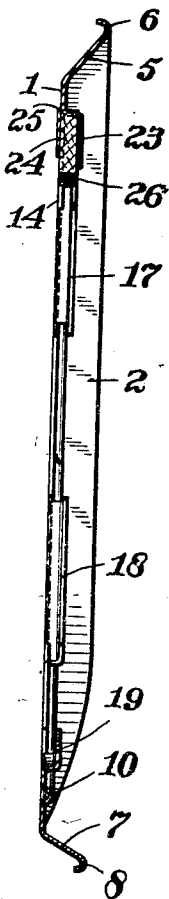


Fig. 3.

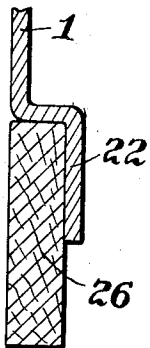


Fig. 4.

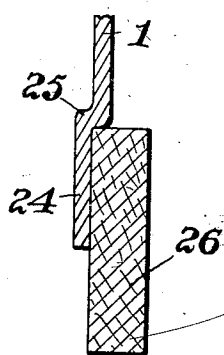


Fig. 5.

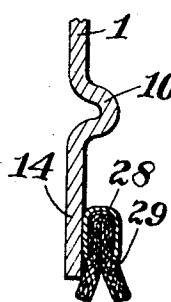
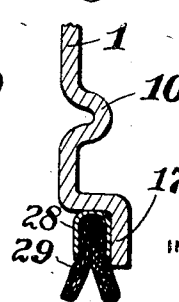


Fig. 6.



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## UNITED STATES PATENT OFFICE

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## DUSTGUARD

Application filed March 11, 1929. Serial No. 346,165.

My invention relates to new and useful improvements in dust guards for the journal boxes of railway cars and has for an object to provide a dust guard that will fit closely around the dust guard bearing of the axle to exclude the dust and prevent the escape of oil and waste.

One of the objects of the present invention is to provide a dust guard that will be extremely light in weight and efficient in service.

Still another object of the invention is to provide a dust guard comprising a metal holder or frame, in which there is placed a ring, which in turn is formed with a pliable material, such as lamp wicking or cotton webbing securely held in a metal backing.

Still another object of the invention is to provide a dust guard formed of relatively thin sheet metal, in which there is a wick crimped in a metal backing, which wick with its metal backing may easily be removed from the plate and a new one inserted when necessary.

Still another object of the invention is to provide a dust guard comprising a plate, in which there fits the renewable wick, the said ring being broken at its upper portion and fitting within a small removable bearing block, which in turn may rest on the axle in the journal box.

Still another object of the invention is to provide a dust guard that is extremely cheap to manufacture and wherein the ring wick may be easily renewed and the metal plate itself be used indefinitely.

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,

Figure 1 is a plan view of my improved dust guard showing the wick ring in position;

Figure 2 is a sectional view taken on line 2—2 and looking in the direction of the arrows, but with the wick removed;

Figure 3 is a sectional view taken on line 3—3 of Figure 1 on an enlarged scale;

Figure 4 is a sectional view taken on line 4—4 of Figure 1;

Figure 5 is a sectional view taken on line 5—5 of Figure 1;

Figure 6 is a sectional view taken on line 6—6 of Figure 1.

Referring now to the several views and Figure 1 in particular, it will be seen that my improved dust guard consists of a sheet metal plate 1 having the outstanding flanges 2 along the sides. The bottom of the plate is rounded, as at 3, while the top 4 is flat across its entire width. The top of the plate is provided with the offset flange 5, while its edge 6 is slightly curled, as may be seen in Figures 1 and 2.

It will also be seen that there is the small flange 7 at the bottom with the slightly curled edge 8, thus the edge 8 and the top 6 of the flange 5 being in the same vertical plane, so that when the dust guard is placed in the dust box (not shown), it will bear against the opposite walls of the same from the main plate 1.

The central portion of the plate 1 is cut out, as at 9, the opening being slightly larger than the circumference of the car axle (not shown).

About the wall of the circular opening 9, there will be seen the pressed rib 10, which extends from the point 11 near the top of the plate around to the point 12, or in other words, the rib nearly circumscribing the opening.

There is a slight circular space 13 between the rib 10 and the edge of the peripheral wall of the opening 9, which is partly cut out to form lips in staggered relation, as may be seen in Figure 1 and the several sectional views.

Referring for the moment to Figure 5 which is a section on line 5—5 of Figure 1, it will be seen that the peripheral edge 14 at this point is in the normal plane of the plate. However, the metal is then slit or cut, as at 15 and 16, to form the lug or lip 17, as may be seen in Figure 6, and this metal is pressed inwardly, as viewed from Figure

2 or, in other words, is offset from the part 14 to form a retaining lip.

There are a number of these lips formed in the same way, such as 18, 19, 20 and 21, the metal left in the original plane also forming retaining lips, alternately thereof.

Now at the top of the circular opening, the metal is cut and offset to form two lips 22 and 23, while the central section 24 between these two lugs is offset slightly in the opposite direction, as may be seen at 25, (see Figure 4); the purpose of these three lugs being to receive and hold a small bearing block 26 which may be made of wood, fibre or metal, and has its opposite edges notched, as at 27.

Now the purpose of leaving some of the metal about the peripheral edge in the one plane and cutting out and offsetting other lips or lugs is for the reception of a split metal ring 28, in which metal ring there is crimped the wick 29, which wick is adapted to tightly fit or snug the car axle (not shown).

Now this crimp metal ring 28 has its ends 30 fitting within the opposite notched ends of the bearing block 26, while the metal ring fits under the lips 17, 18, etc., and also bears against the remaining staggered lips that are formed between the lips 17, 18, etc., and is thus tightly held in place. The small bearing block holds these ends of the split ring together and will rest and bear on the axle (not shown).

Any time that it is desired to put in a new bearing block, ring or wick, it is a simple matter, when the axle of course is out of the journal box to slip the old ring or bearing block from out of the lips and put a new one in its place.

From the foregoing, it will be seen that I have produced a metal dust guard that is extremely cheap to manufacture, as the plate itself may be quickly stamped out by the proper dies, while the small metal ring with the wick may be made on a crimping machine that has been fitted up for the purpose and of course the small bearing blocks may be made at a minor expense.

Thus, the entire dust guard may be made at a very economical price and the crimped ring with the wick may be renewed at a cheap price and the dust guard plate used indefinitely.

Many slight changes might be made without in any way departing from the spirit and scope of the invention.

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

1. A dust guard formed of a metal sheet having a large central opening, together with a fixedly held split metal ring having an axle engaging member associated therewith, integral means about the opening for

holding the ring in position, and plug means having its ends notched and located vertically centrally of the opening and adapted to rest on the axle and receive the ends of the split ring.

2. A dust guard formed of a metal sheet having a large central opening, a wick having a metal backing crimped thereto and the wick and backing formed into a split ring the ends of which are substantially spaced from each other, the walls about the opening of the dust guard cut to form lips for engaging the metal backing of the split ring and for holding the said ring tightly in position and against rotation, means formed at the top of the opening for removably holding an axle bearing plug a plug having notched ends carried by said means and the ends of the metal backing of the ring jammed within the notched ends of the plug to thereby complete the split ring.

3. A dust guard formed of a metal sheet having a large central opening, a pressed groove around the peripheral wall of the opening and terminating short of a median line, the walls about the opening being split and bent to form staggered lips and a pocket formed at the top of the opening and positioned between the ends of the said reinforcing groove a plug having notched ends fitting in said pocket and adapted to bear against an axle and a wick in the form of a split ring and having its outer edge crimped within a metal backing, the wick and the metal backing held within the lips about the opening of the plate and the metal ends of the split ring fitting within the notched ends of the plug.

In testimony whereof I affix my signature.

WILLIAM F. CREMEAN.