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DUST SHIELD FOR VEHICLE HUBS.

(Application filed Mar. 30, 1899.)

(No Model.)

Fig. 1.

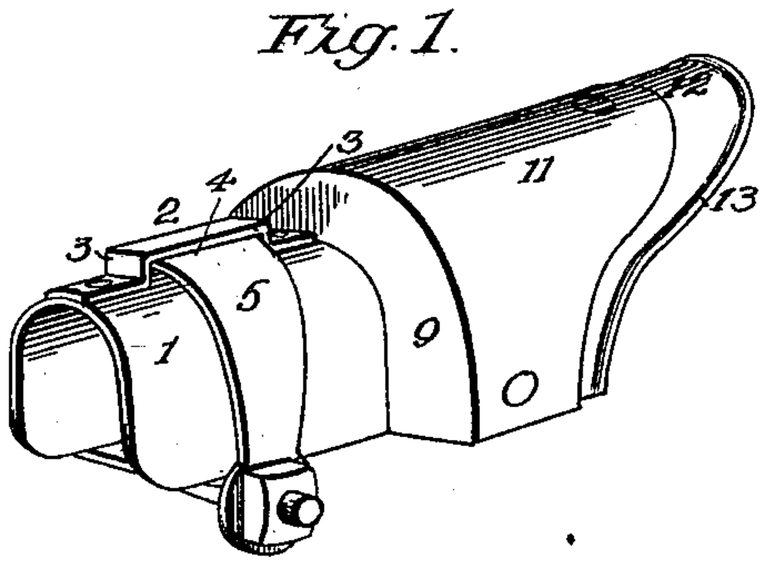


Fig. 2.

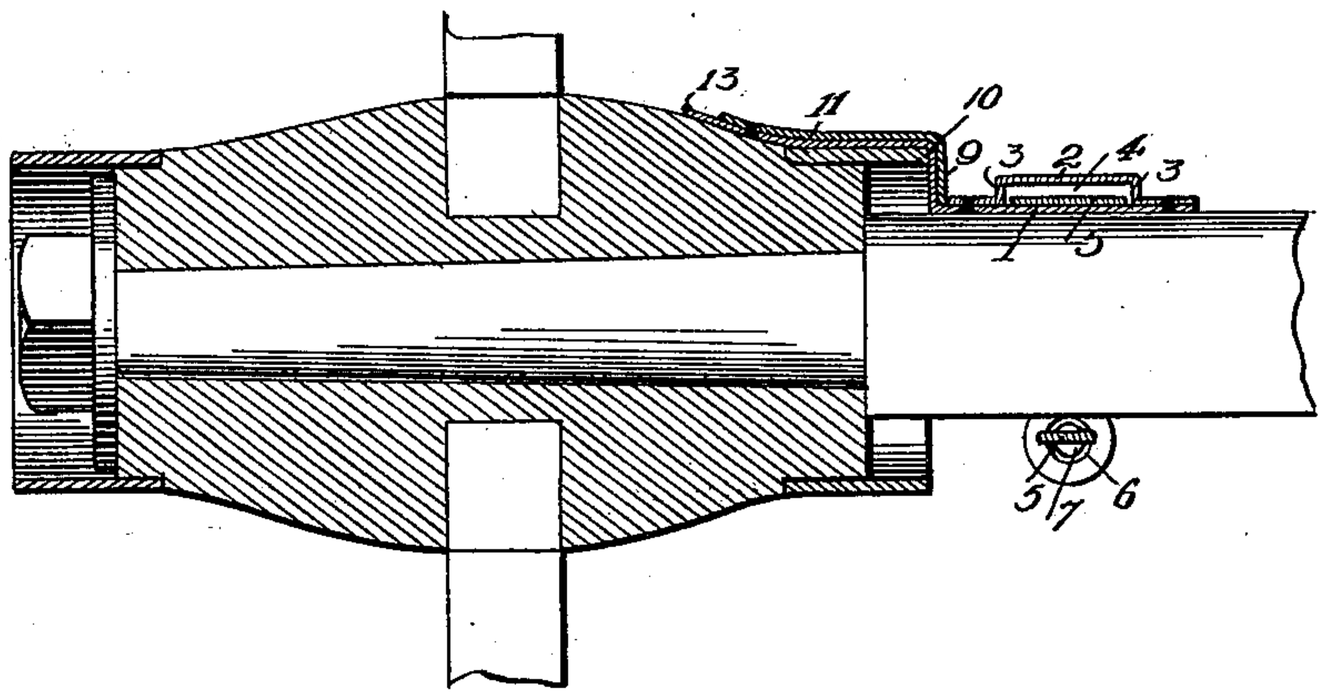


Fig. 3.

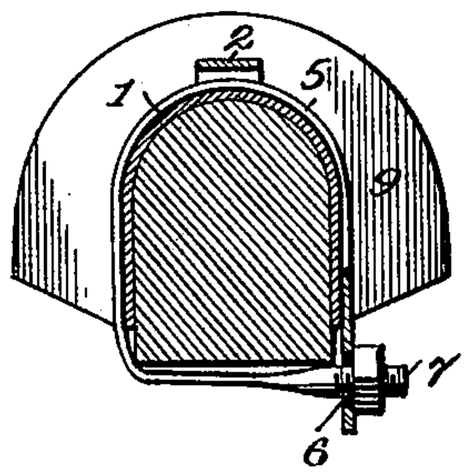
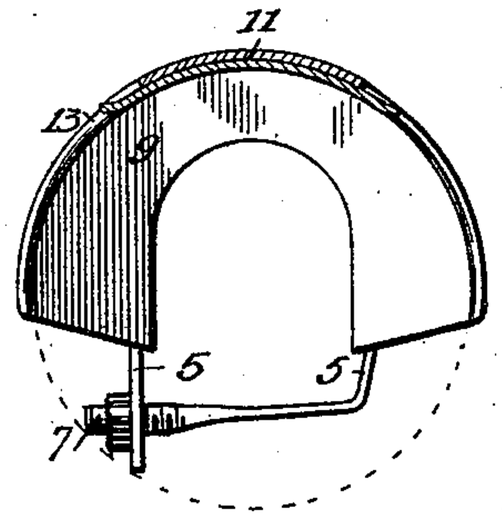


Fig. 4.



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UNITED STATES PATENT OFFICE.

HENRY C. BURCH AND JOHN W. WALLING, OF AMITY, OREGON.

DUST-SHIELD FOR VEHICLE-HUBS.

SPECIFICATION forming part of Letters Patent No. 636,628, dated November 7, 1899.

Application filed March 30, 1899. Serial No. 711,127. (No model.)

To all whom it may concern:

Be it known that we, HENRY C. BURCH and JOHN W. WALLING, citizens of the United States, residing at Amity, in the county of Yamhill and State of Oregon, have invented certain new and useful Improvements in Dust-Shields; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to dust-shields; and the object in view is to provide an article of the character referred to which is resilient and which will accommodate itself readily to a vehicle-hub, yielding to the endwise movement of the hub and at all times fitting snugly and closely against the outer surface of the hub, thereby preventing the admission of dust, dirt, and other foreign matter to the spindle.

A further object of the invention is to provide a dust-shield of such a construction that it will automatically wipe the dust, dirt, and other matter from the inner end of the hub outward, thereby causing it to fall away from the hub at a point remote from its inner end.

The detailed objects and advantages of the invention will appear more fully in the course of the subjoined description.

The invention consists in a dust-shield for wheel-hubs embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and incorporated in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a dust-shield constructed in accordance with the present invention. Fig. 2 is a longitudinal section through a hub and spindle, showing the application of the improved shield thereto. Fig. 3 is a cross-section through the axle and dust-shield, showing the clip by means of which the shield is secured upon the axle.

Similar numerals of reference designate corresponding parts in all the views.

Referring to the drawings, it will be seen that the dust-shield contemplated in this invention comprises a body portion 1 in the form of a half-sleeve adapted to fit over the top of an axle and to conform as closely as possible to the shape of said axle. Extending along the top of said sleeve portion 1 is a metal strap 2, which is secured at its ends to the sleeve 1 and offset at the points 3, so as to leave a space 4 between the strap and sleeve, through which the clip (indicated at 5) passes.

The clip 5 is composed of a piece of flat metal provided at one end with an opening 6 for the passage of the other extremity of the clip. The said other extremity (indicated at 7) is substantially round in cross-section and is screw-threaded. The body of the clip 5 passes through the loop 4, formed by the strap 2, and is thus connected to and kept from being separated from the dust-guard. After the clip 5 is passed around the axle the threaded extremity thereof is passed through the opening in the other extremity and a nut applied to the projecting threaded end, whereupon by tightening said nut the clip 5 is drawn tightly around the axle and caused to bind and clamp the body or sleeve 1 fast on the axle.

The particular form of clip hereinabove described enables the dust-shield to be clamped at any desired point on the axle, no matter whether there are bolts, springs, or other projections present, the clip being adapted to embrace any projections of such nature.

At the outer end of the half-sleeve or body 1 is a disk-shaped head 9, which is adapted to abut against the inner end of the hub, (shown at 10.) Extending outward and substantially horizontally from said head 9 is the shield 11, which is substantially semicylindrical in cross-section near its inner end and constructed in laminated form, being composed of two or more thicknesses of spring metal of any desired gage for imparting to the shield as a whole the necessary resiliency to enable it to conform to the contour of the hub and accommodate itself at all times to the movements and varying positions of the hub. While the inner portion of the shield is semicylindrical, as described, as it approaches its outer end or extremity it is reduced in width, so as to form a horizontally-projecting and somewhat obliquely disposed tongue 12. The extreme end of the tongue is of but a single thickness and is composed of the inner or under ply or layer of the shield.

The several thicknesses or plies are secured together by suitable rivets at the proper points.

In view of the above description it will be seen that the shield proper (indicated at 11 and 12) is composed of plies or thicknesses of resilient metal, and the flexibility or resiliency of the shield increases toward its projecting end or extremity, where the size of the hub also increases. In view of this construction and arrangement it will be seen that the shield can spring or yield to accommodate itself to the shape of the hub and also to accommodate the hub in its varying positions. It will also be noted that the shield on both sides is curved at the points 13, and the edges of said curved portions are of ogee form and act as deflectors or wipers for wiping the dirt, dust, and other foreign matter on the outside of the hub toward the outer end of the hub and away from the inner end, where the spindle enters. It will be noted that the innermost layer or thickness reaches farther out on the hub than the next succeeding thickness, so that the entire edge of the inner thickness, or that which bears directly against the hub, is left to a certain extent unsupported, thereby enabling it to yield readily and conform to the outer contour of the hub.

We do not wish to be restricted to the exact form of dust-shield hereinabove described, and illustrated in the drawings, but reserve to ourselves the right to change, modify, or vary the form and construction within the scope of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A dust-shield for vehicle-hubs constructed to extend over the inner end of the hub and made in laminated form, the projecting portion of the shield being composed of spring-metal plates of unequal length which extend one beyond the other over the hub, whereby the resiliency of the shield increases toward its outer projecting end.

2. A dust-shield for vehicle-hubs, constructed to extend over the inner end of a hub and made tapering toward its projecting reduced extremity so as to form inclined or obliquely-disposed edges of ogee form which serve to wipe the dust and other matter away from the inner end of the hub, substantially as described.

3. A dust-shield for vehicle-hubs, comprising a body portion for embracing an axle, and provided with a loop on its upper side, in combination with a clip consisting of a metal strap passing through said loop and around the body portion of the shield, one end of said strap being provided with an opening and the other end threaded and inserted through said opening, where it is provided with a clamping-nut.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRY C. BURCH.
JOHN W. WALLING.

Witnesses:
J. W. MARTIN,
J. A. BREEDING.