E. B. STIMPSON.

TIRE PROTECTIVE RIVET.

APPLICATION FILED JAN. 28, 1908.

984,500. Patented Feb. 14, 1911.

Fig. 1

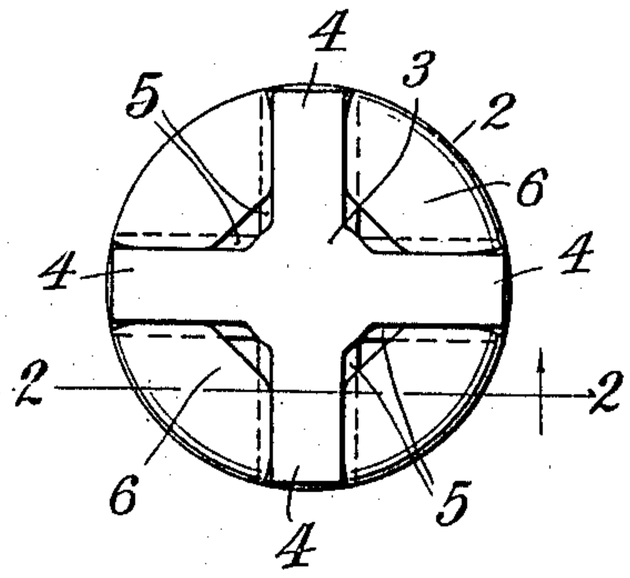


Fig. 2

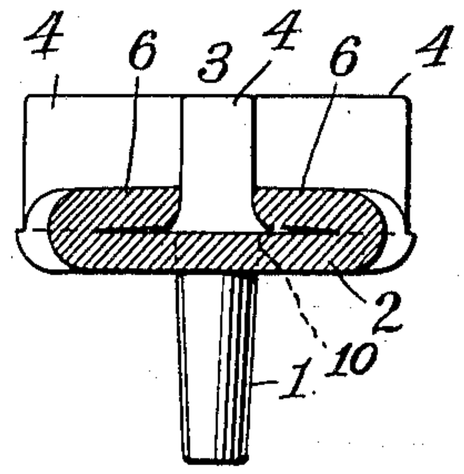


Fig. 3

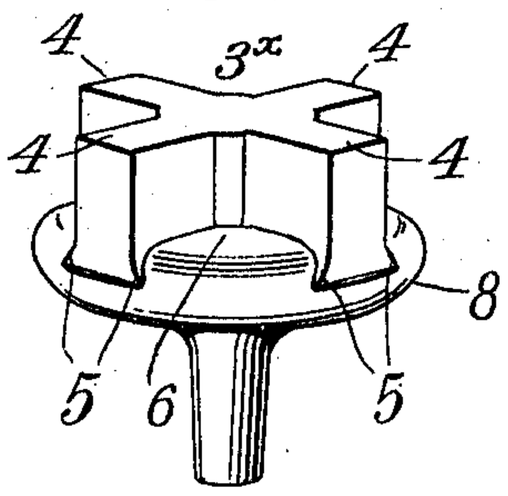


Fig. 4

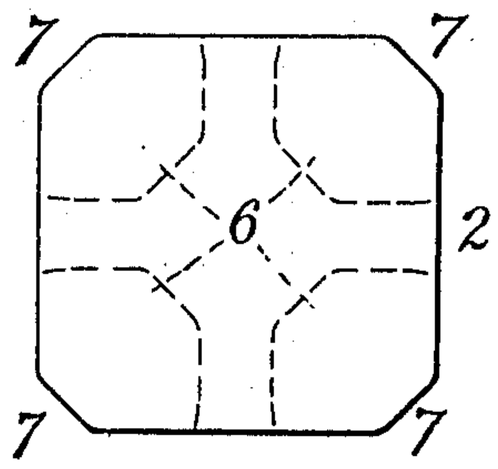
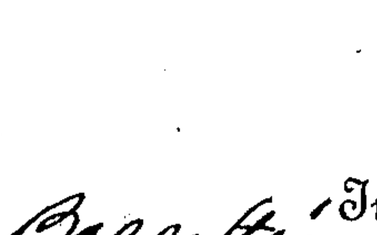


Fig. 5

Fig. 6



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TIRE-PROTECTIVE RIVET.

984,500. Specification of Letters Patent. **Patented Feb. 14, 1911.**

Application filed January 28, 1908. Serial No. 412,969.

To all whom it may concern:

Be it known that I, EDWIN BALL STIMPSON, a citizen of the United States, and a resident of the borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Tire-Protective Rivets, set forth in the following specification.

My herein rivet has features of construction specially adapting it for preventing the wear of automobile tires, also slipping and skidding.

In the drawings which show some of the forms which the rivet of my present invention may take, Figure 1 is a plan view of such a rivet looking down upon the rivet head; Fig. 2 is a view partly in section and partly in side elevation of the rivet of Fig. 1 as seen cut by a plane on the line 2—2 in Fig. 1, looking in the direction of the arrow, the member 4, however, being shown in elevation; Fig. 3 is a modification in which the shank is integral with the base member instead of with the road-contacting member; Fig. 4 is a plan view of the blank from which the base member of Fig. 1 is adapted to be bent up and formed, no hole 10 having as yet been punched in said blank; and Figs. 5 and 6 are perspective views of modified forms of road-contacting members.

Describing now my herein invention with special reference to the forms of rivet shown in the drawings, that of Figs. 1 and 2 comprises a shank 1, a base member 2, and a road-contacting member 3, the shank and road-contacting member in this particular form being integral.

A top plan of the road-contacting member is shown in Fig. 1, a side elevation in Fig. 2, and a perspective view in Fig. 3. The last named figure shows the same construction of road-contacting member as in Figs. 1 and 2, although it differs in having the shank-member non-integral therewith.

From the aforesaid figures, it will be seen that the road-contacting member comprises four plate-like members 4 radiating integrally from a center and that the member is supported so as to have its cross-like edges in position to bear upon the road.

The base member 2 has an opening 10 through it from which projects the shank. The base member being intermediate, the road-contacting member and the tire or fabric, protects the latter from being cut into by the bottom edges of the road-contacting member.

It will be noted from Figs. 1 to 3 that the sides of the plate-like members extend outwardly toward the bottom as at 5 and that the base member has infolded portions 6 which are folded in between adjacent plate-like members to contact with their outwardly tapering sides, whereby the base and road-contacting members are secured together.

The described infolding of the intermediate portions of the base member is shown in section in Fig. 2 and in top plan in Fig. 1. The blank of the base member before its intermediate portions are infolded is shown by the nearly square outline 7 in Fig. 4, whereas the dotted lines 6 in that figure show the corners of the square after they have been folded inward against the sides of the plate-like members.

Fig. 3 as already stated shows a modification in which the road-contacting member 3× is non-integral with the shank, in other words is the same as the member shown in Fig 5 but without the central opening. The shank in this form is integral with the base member 8. This base member 8 may have the same form as that described in connection with Figs. 1, 2 and 4, in which portions thereof are infolded between the arms of the road-contacting member and by engagement with the sides thereof secure it to the base member.

Fig. 5 shows a modified form of road-contacting member which is the same as the corresponding member of Figs. 1 to 3 with the modification that its arms are relatively shorter and its center portion relatively larger and cupped out so that the member as a whole may be described as comprising a cup rim or wall with arms radiating therefrom. In this form also the arms are shown with their sides extending outwardly toward the bottom, thus making it possible to substitute this form of road-contacting member for the corresponding member in Fig. 3, with portions of the base member infolded as in Fig. 3 against the tapered sides of the projecting arms.

Fig. 6 shows another modification of road-contacting member consisting in making up said member out of non-integral metal strips 9 of which there may be two as shown, each

bent at an angle so that when assembled they present cross-like arrangement and with the strips arranged in their preferred form on edge. As before the sides of the strips extend outwardly toward the bottom whereby they can be engaged by infolded portions of the base member. Thus the strips 9 may be substituted for the road-contacting member in Fig. 3 with the ends of said strips located in the spaces between the infolded portions of the base member.

In all of the forms, the road-contacting members will preferably consist of hardened steel. The base members may or may not be hardened.

An advantage of securing the road-contacting members to the base by infolding portions of the latter between the arms of the former or against the sides of said arms is that this method readily permits the road-contacting member to have any width relative to the base member. At the same time, the road-contacting member and the base can be united with perfect security.

Thus the rivet of my present invention may be defined from one point of view as comprising a shank, a base member, and a road-contacting member comprising a strip or strips of hard material which may be secured by portions of the latter infolded against the sides of the strips, thus making it possible for said hardened strips to have any width relative to the base member. Therefore the construction is such that extensive road-contacting hardened edges and strips can be secured to the great increase of the road-gripping quality of the rivet.

Having thus described my invention, what I claim is:

1. A protective rivet comprising in combination a base; a pair of independent centrally bent strips, resting on one of their bent edges on said base, the central bent portions of the strips being located adjacent to each other at the middle of the base and the legs of the strips radiating outwardly toward the periphery of the base, said strips having side walls that extend outwardly toward the bottom, and said base having portions infolded between the legs of the strips into contact with their aforesaid outwardly extending side walls; and a shank projecting from the bottom of the base.

2. A protective rivet comprising in combination a base; radiating plate-like members located on edge on said base, said members having side walls that extend outwardly toward the bottom, and said base having portions infolded between the plate-like members into contact with their side walls; and a shank projecting below the base.

In witness whereof I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

EDWIN BALL STIMPSON.

Witnesses:
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