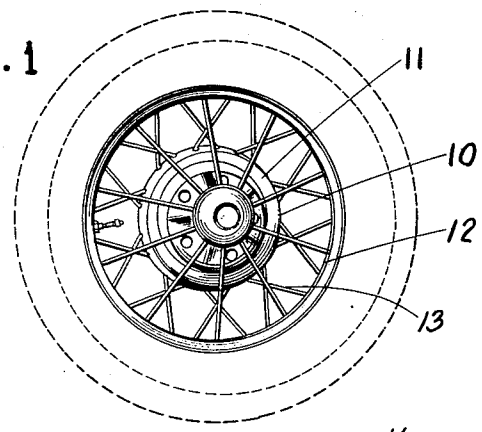
March 6, 1934. W. H. FARR 1,950,082

WHEEL SPOKE SHROUD

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FIG. 1



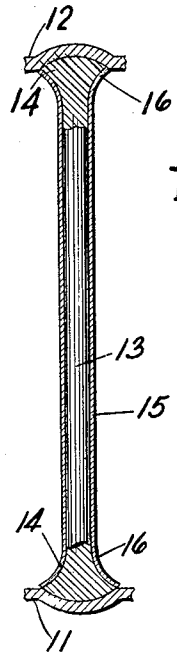




FIG. 2

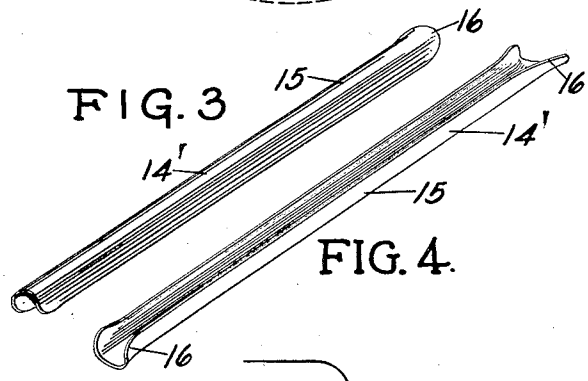



FIG. 3

FIG. 4.

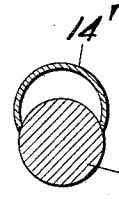
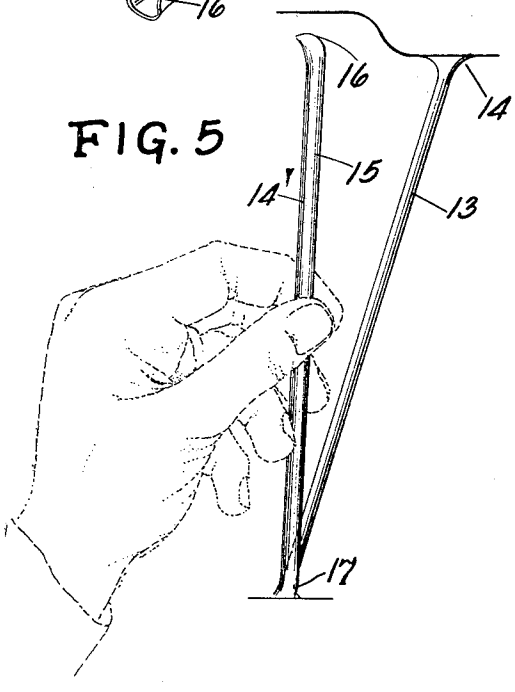



FIG. 6

FIG. 5



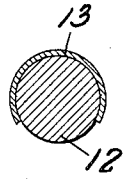




FIG. 7

INVENTOR.
WARREN H. FARR

BY John P. Taylor
ATTORNEY.

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WHEEL SPOKE SHROUD

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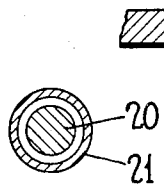



FIG. 11

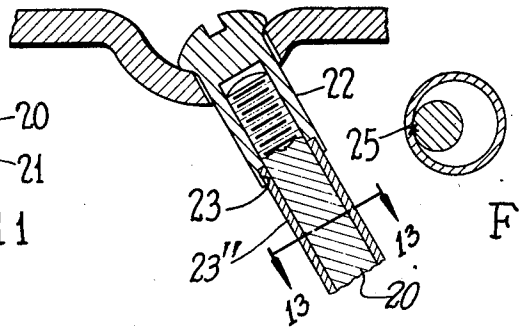



FIG. 12

FIG. 10

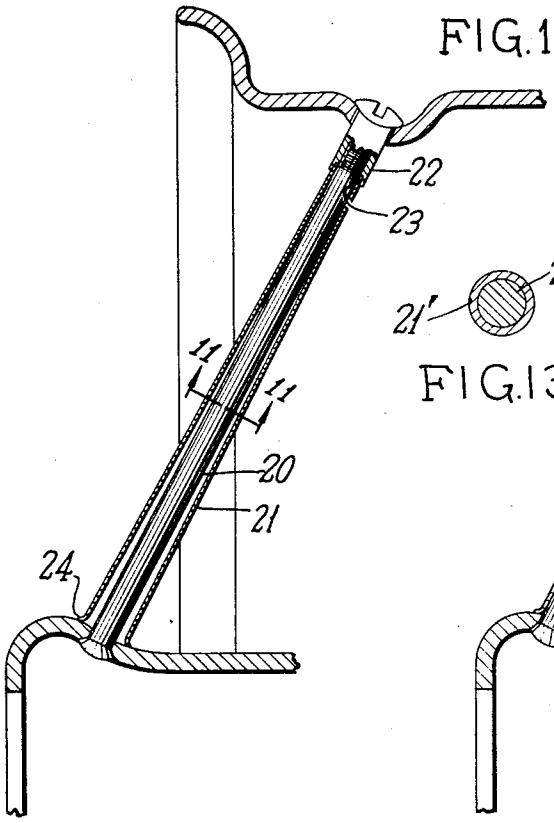






FIG. 13




FIG. 8

FIG. 9

INVENTOR.
WARREN H. FARR

BY John P. Farbox

ATTORNEY.

Patented Mar. 6, 1934

1,950,082

# UNITED STATES PATENT OFFICE

1,950,082

## WHEEL SPOKE SHROUD

Warren H. Farr, Detroit, Mich., assignor to Budd Wheel Company, Philadelphia, Pa., a corporation of Pennsylvania

Application November 18, 1930, Serial No. 496,374

8 Claims. (Cl. 41—10)

My invention relates to the art of vehicle wheels and particularly to the art of wheels having individual spokes. It is more particularly related to the art of wire wheels, although it will probably also find application in connection with other types of spoked wheels.

Spoke wheels, and more especially wire wheels, are found objectionable by many customers on the ground that they are very difficult to keep in a clean and attractive condition. Other objections to the use of wire wheels are found in the rapid deterioration of their surfaces upon exposure to the elements. The moisture in the atmosphere not only adversely affects the finish of the spokes but ultimately effects a corrosion of the metal of the spokes themselves.

My invention has for its object the avoidance of the above mentioned defects in connection with wire wheels. I have sought to provide a superior ornamental finish upon a wire wheel and at the same time prevent the corrosion of the metal thereof or the serious deterioration of the finish and facilitate the cleaning and polishing of the visible surfaces of the spoke bodies.

I have attained these objects by shrouding the spokes by means of detachable covers which are individually applicable to and removable from the several spokes. These covers are preferably of rustless metal, such for example, as stainless steel and thus themselves resist corrosion at the same time that they protect the outer surfaces of the spokes and produce an ornamental appearance for the wheel body as a whole. These covers may be of suitable ornamental shapes and thereby enhance the beauty of the wheel even further.

In the drawings,

Figure 1 is a side elevation of a wheel of a well known commercial type.

Figure 2 is a longitudinal section through an individual spoke of the wheel of Figure 1 illustrating the application of my invention thereto.

Figures 3 and 4 are perspective views of the improved cover of my invention.

Figure 5 is a detail view illustrating the method of attaching one of the improved spoke covers of my invention.

Figure 6 is a longitudinal sectional view taken through a spoke during the attaching step.

Figure 7 is a similar sectional view after the cover is attached to the spoke.

Figures 8 to 10 are longitudinal sectional views illustrating three modifications, and

Figures 11 to 13 are transverse sections on the lines 11—11 to 13—13 of Figures 8 to 10, respectively.

I have illustrated my invention in connection with a wheel of a well known commercial type having a hub 11 and rim 12 interconnected by a plurality of spokes 13. In the particular type of wheel shown, the spokes are welded to the hub and rim and the fusion of the ends of the spokes incident to the welding operation produces on each spoke, two globules 14 of metal, one adjacent the hub and one adjacent the rim.

According to my invention I cover the individual spokes 13 by means of channel shaped shrouds 14' having central portions 15 of substantially uniform cross section and flaring ends 16. In the drawings these shrouds are shown as conforming generally to the shape of the spokes. It is, of course, necessary that the covers should tightly grip the spokes but it is not necessary that the covers conform exactly to the contour of the spokes as these covers may have any desired ornamental configuration. In order to protect the finish of the covers from the elements, I form them of suitable rustless material and I find that the rustless material which gives the most pleasing ornamental appearance is stainless steel and I therefore use stainless steel in the manufacture of these shrouds according to the preferred embodiment of my invention.

In Fig. 2 the flaring ends 16 of the covers are shown as conforming to the globules on the ends of the spokes. In the application of my invention to the type of spoke illustrated in Fig. 2, the covers should flare at their ends sufficiently to facilitate the insertion thereof in the manner illustrated in Fig. 5, and even in connection with a spoke which does not have flaring ends, the ends of the cover should flare slightly in order to facilitate the initial assembly of the cover adjacent one end of the spoke and its subsequent application to the spoke as illustrated in Fig. 5 through a successive wedging action. The flaring end can, of course, be inserted by a reasonable degree of effort and the remainder of the cover can, therefore, be inserted over the spoke by a relative angular movement of the spoke and cover about an axis determined by the point of initial insertion, i. e., the point 17 in Fig. 5.

Figures 8 to 13 represent modifications in which the shroud is assembled with the wheel before the completion of the assembly of the spokes with the rim and hub. In each of these modifications the shroud completely surrounds the spoke.

According to the modification of Figure 8 I form an ordinary nipple spoke 20 surrounded by

a spoke shroud 21 of tubular form which may be either welded or seamless. The spoke nipple 22 is annularly recessed as indicated at 23 to receive the upper end of the shroud and the lower end of the shroud is flared as indicated at 24 in order to provide a smooth abutment against the hub shell. The shroud illustrated in this embodiment is tapered, thus giving the effect of a tapered spoke.

Figure 9 represents a structure generally similar to Figure 8 except that the shroud 21' is spot welded to the spoke as indicated at 25, and thus contacts with it along one of its edges. The nipple 22' of Figure 9 abuts the upper end of the shroud. The modification of Figure 10 represents a shroud 21'' which conforms to the shape of the spoke. In this figure I have illustrated a nipple of the same type as that employed in the modification of Figure 8.

Each of the forms of Figures 8 to 10 illustrates the fact that a spoke may be assembled with the shroud in the manufacture of a wheel and thus become a permanent part thereof. Figures 8 and 9 further illustrate the formation of a shroud into any desired shape to mask the shape of the spoke, thus producing any desired ornamental effect. It will thus be obvious that my invention is susceptible of a great variety of applications and may be used to produce any desired spoke shape.

The manner in which I have attained the objects of my invention will now be obvious. My improved shrouds not only present a very pleasing ornamental appearance at a much smaller cost than would be entailed in the fabrication of the entire spoke of the material of the shroud, but they possess the additional advantage of being readily removable for cleaning purposes. These shrouds also protect the material of the spoke itself from the elements and thus preserve the finish thereof. It will thus be seen that I have provided an outer spoke surface which is not only highly ornamental, but which is also capable of retaining its ornamental appearance indefinitely by reason of its resistance to corrosion and may be readily applied to a spoke or removed therefrom for cleaning and polishing purposes.

Modifications will be obvious to those skilled in the art and I do not therefore wish to be limited except by the scope of my sub-joined claims as interpreted in the light of the generic spirit of my invention.

What I claim is:

1. In combination, a wire vehicle wheel having spokes and individual casings for said spokes individually applicable to and removable from the spokes after the wheel is in assembled and fabricated relation.

2. In a wire wheel, a hub, a rim and a plurality of spokes interconnecting said hub and rim, nipples individual to said spokes and tubular ornamental shrouds also individual to said spokes, the ends of said tubular shrouds being received within annular recesses in said nipples.

3. In combination, a wire vehicle wheel having straight spokes and ornamental frusto-conical shrouds individual to said spokes.

4. A vehicle wheel including a body of spokes and ornamental shrouds individually detachably secured to the individual spokes of said body of spokes.

5. An article of manufacture comprising a substantially channel-shaped ornamental shroud arranged to encompass by snapping engagement substantially the entire length of a vehicle wheel spoke and thereby conceal the said spoke.

6. An article of manufacture comprising a readily removable ornamental stainless steel shroud member for individual wire wheel vehicle spokes of substantially spoke configuration detachably removable from the individual spokes of an assembled spoked wheel body.

7. An article of manufacture comprising a substantially channel-shaped ornamental stainless steel shroud arranged to encompass by snapping engagement substantially the entire length of a vehicle wheel spoke, and thereby conceal the said spoke.

8. In combination, a wheel comprising nave and rim portions interconnected by a spoke wheel body which carries substantially all of the radial, lateral and torque loads of the wheel and covering means for the wheel substantially free from wheel load and comprising spaced radially extending portions covering at least substantially all those portions of the spokes which would otherwise be visible from any axially outward perspective of the wheel.

WARREN H. FARR.