No. 756,044. PATENTED MAR. 29, 1904.

G. A. McKEEL.

VEHICLE HUB CASING.

APPLICATION FILED AUG. 7, 1903.

NO MODEL.

Fig. 1.

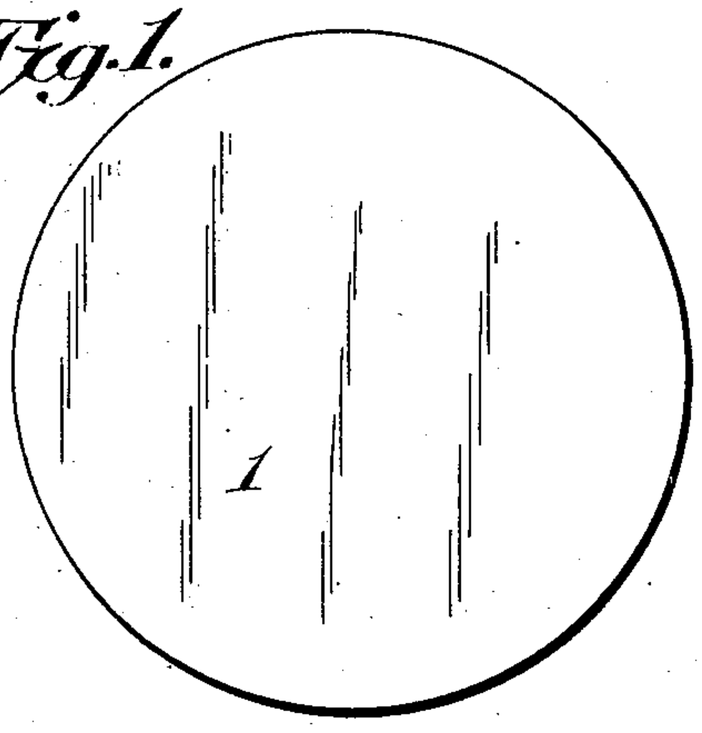


Fig. 2.

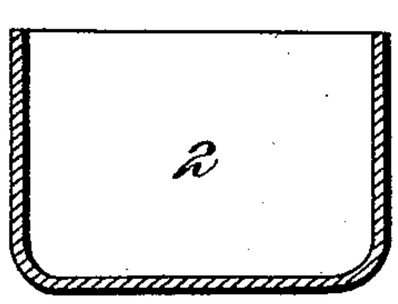


Fig. 3.

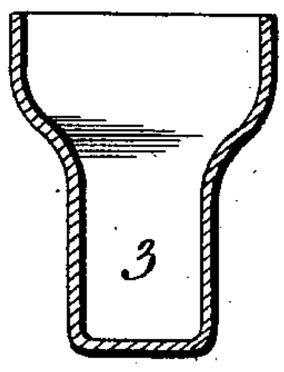


Fig. 4.

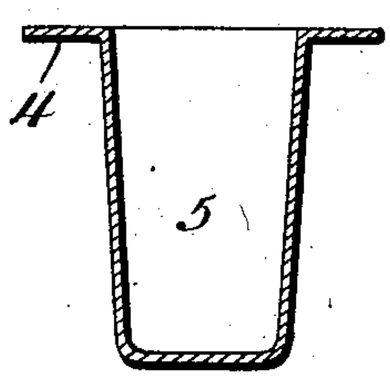


Fig. 5.

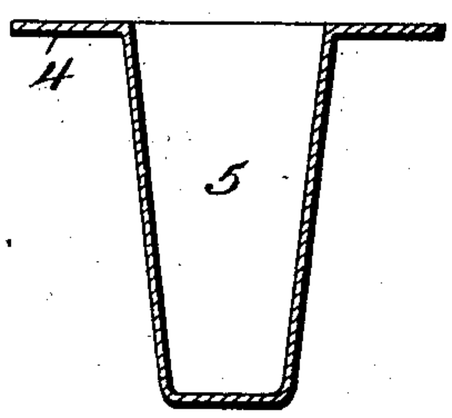


Fig. 6.

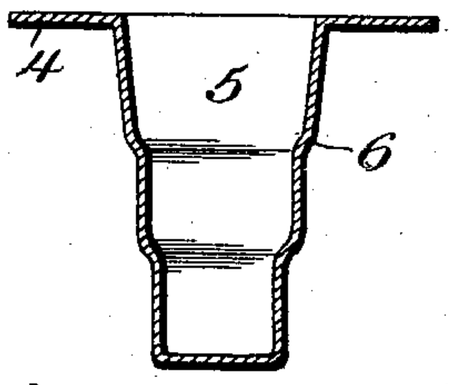


Fig. 7.

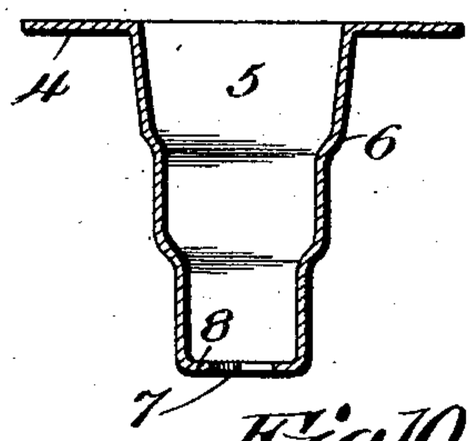


Fig. 8.

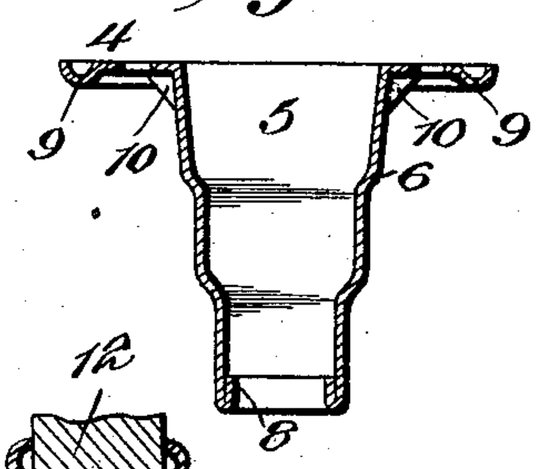


Fig. 9.

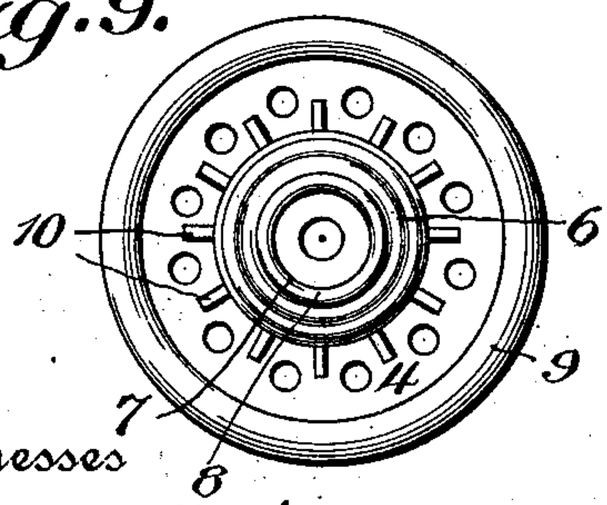
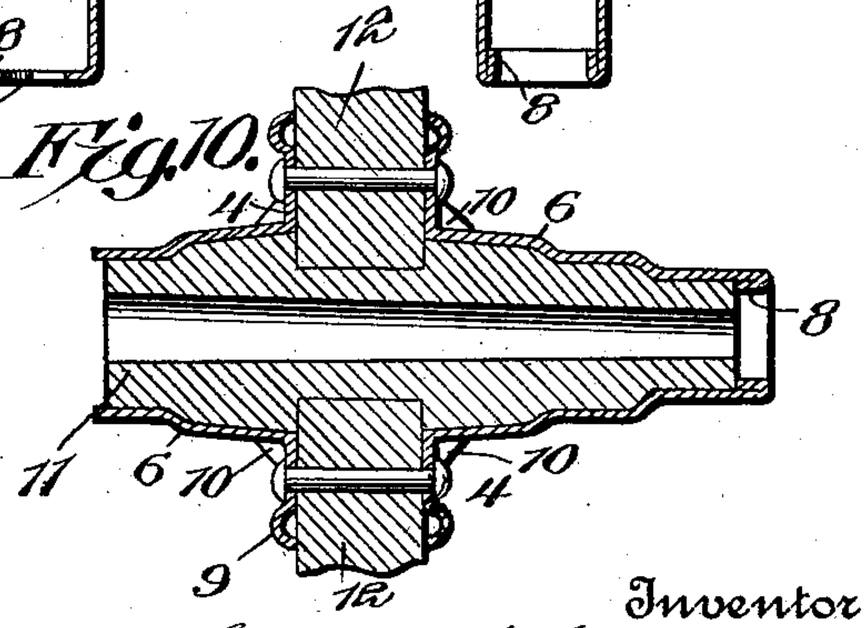


Fig. 10.



Witnesses

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Attorney.

No. 756,044. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

GEORGE A. McKEEL, OF JACKSON, MICHIGAN, ASSIGNOR TO GEORGE A. McKEEL & CO., LTD.

VEHICLE-HUB CASING.

SPECIFICATION forming part of Letters Patent No. 756,044, dated March 29, 1904.

Application filed August 7, 1903. Serial No. 168,585. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. McKEEL, a citizen of the United States, residing at the city of Jackson, in the county of Jackson and State of Michigan, have invented a new and useful Improvement in Vehicle Casings or Flanges and the Method of Forming the Same, of which the following is a specification.

This invention relates to sheet-metal casings or flanges for hubs having a number of distinct objects and advantages hereinafter enumerated.

In the drawings forming part of this specification Figures 1, 2, 3, 4, 5, 6, 7, and 8 illustrate the casing at various stages of its manufacture in accordance with the present invention. Fig. 9 is an end elevation of a hub with my improved casing applied thereto, and Fig. 10 is a vertical sectional view through the same.

In carrying out the present invention a sheet-metal disk is first employed which is capped or pressed into a cup shape 2. The lower portion of this cup is elongated and contracted, as shown at 3. Then an outturned flange 4 is formed at the open end of the cup, and the body portion 5 thereof is tapered, as shown. This portion 5 is afterward elongated by drawing the metal, as illustrated in Fig. 5, and the larger portion is afterward convexed, as designated by the reference character 6 in Fig. 6, the body portion being again elongated by drawing upon the metal. The next step is the making of an opening 7 in the bottom of the cup of less diameter than said bottom, forming an inturned flange 8. This flange is finally doubled inwardly against the inner face of the body portion 5, while a marginal bead 9 is formed on the outer edge of the flange 4. Fillets 10 are pressed in the metal at the juncture of the flange and body, and rivet-openings are formed in said flange.

If desired, the inner casing need not necessarily include the inturned flange 8, but may be formed as shown in Fig. 10 of the accompanying drawings.

In use the casing-sections are pressed upon a wooden hub 11, so that the flanges will bear against opposite sides of the spokes 12, said flanges being afterward united together.

The advantages for the formation of the casing in the manner described and the advantages of said casings may be enumerated as follows:

There is absolute perfection and correspondence in shape, a feature lacking in the malleable device of a similar character originally employed. There is less metal employed, and consequently a cheapening in the cost of production as well as a lightening of weight. The casings are, moreover, free from flaws and have a smoother finish. Finally, the ribs and fillets greatly strengthen the parts besides producing smooth finished edges.

What is claimed is—

1. In a vehicle-hub, a casing comprising a tapered metal body portion having an outstanding spoke-engaging flange provided with an annular marginal bead, and fillets pressed in the metal body to brace the juncture between the flange and the body portion.

2. In a vehicle-hub, a casing comprising a metal body portion having an outstanding spoke-engaging flange provided with an annular bead, and fillets bracing the juncture between the flange and body portion.

3. In a vehicle-hub, a casing comprising a metal body portion having an outstanding spoke-engaging flange provided with an annular marginal bead, fillets bracing the juncture between the flange and body portion, and a bead located at the end of the body portion opposite the flanged end thereof.

4. In a vehicle-hub, a casing including a body portion having an outstanding spoke-engaging flange, and fillets bracing the juncture between the flange and body portion.

5. In a vehicle-hub, a casing comprising a tapered sheet-metal body portion having an

outstanding spoke-engaging flange at its larger end provided with an annular marginal bead, an inturned bead at the contracted end of the body portion, and fillets bracing the juncture between the flange and body portion.

6. In a vehicle-hub, a casing including a tapered sheet-metal body portion having an outstanding spoke-engaging flange, and fillets pressed in the metal body to brace the juncture between the flange and body portion.

In witness whereof I have hereunto set my name this 16th day of July, 1903.

GEORGE A. McKEEL.

Witnesses:

WM. SPARKS,

CHESTER W. BROWN.