No. 890,870. PATENTED JUNE 16, 1908.

C. J. REED.

BEVEL GEAR.

APPLICATION FILED JUNE 28, 1904.

Fig. 1.

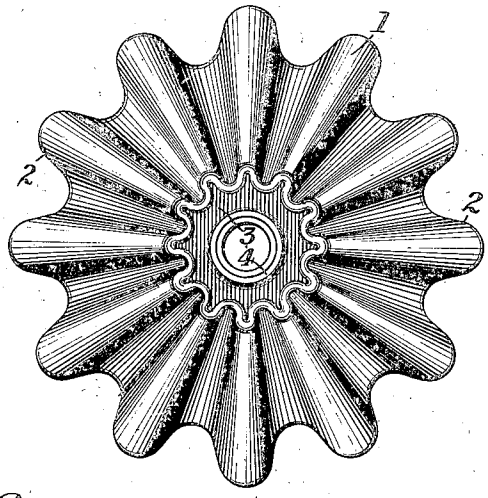


Fig. 2.

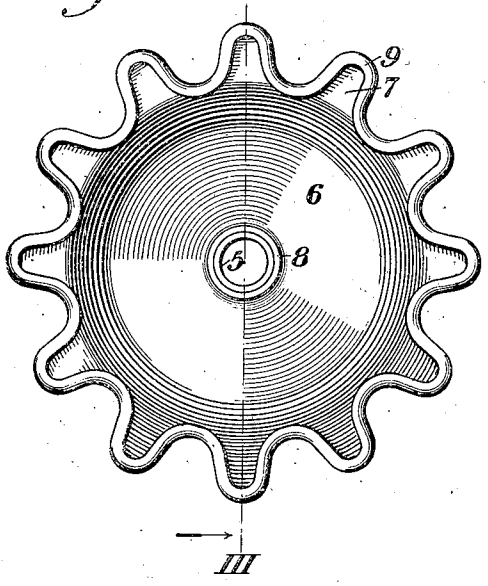
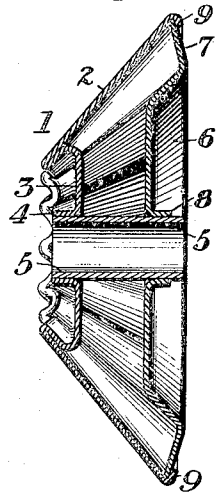


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

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BEVEL-GEAR.

No. 890,870. Specification of Letters Patent. Patented June 16, 1908.

Application filed June 28, 1904. Serial No. 214,509.

To all whom it may concern:

Be it known that I, CHARLES J. REED, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bevel-Gears, of which the following is a specification.

This invention is a bevel-gear having a toothed face which is pressed out of sheet-steel or other wrought metal. The gear preferably has a web which is integral with the face and a separate back which is secured to the face.

Referring to the accompanying drawings: Figure 1 is a face view of the gear; Fig. 2 is a back view of the gear; and Fig. 3 is a vertical axial section on the line III—III of Fig. 2.

The bevel-gear shown has a face 1 which is pressed out of a disk of heavy sheet-steel or other wrought metal to provide radial teeth 2. The central portion of the disk is bent rearwardly beneath the teeth 2 and thence inwardly to form a supporting web 3. This web has an outwardly bent flange 4 which fits closely upon and is secured to a bushing 5. The back 6 of the gear is also pressed out of sheet-metal and has radial projections 7 which enter and fit closely within the teeth 2. The back is dished inwardly to support the teeth and has an outwardly-bent flange 8 which is also secured upon the bushing 5. The edge 9 of the face is flanged over the edge of the back.

The thickness of the sheet-metal employed for the face and back is suited to the power which the gear is intended to transmit. While the gear chosen for illustration, having an integral support-web and a sheet-metal back, is simple in construction and can be readily manufactured by the use of dies and automatic machinery, it is to be understood that the distinguishing characteristic of the invention is the toothed face pressed out of sheet-metal and that this face may be carried by a web or hub of any construction and of wrought or cast metal.

I claim:

1. A bevel-gear, having a toothed face of sheet-metal, and a web extending from said face rearward beneath the teeth and thence inward, as set forth.

2. A bevel-gear, having a toothed face of sheet-metal, and a separate back secured to said face and extending forward beneath the teeth and thence inward, as set forth.

3. A bevel-gear, having a toothed face of sheet metal, and a separate back secured to said face and having a series of projections which fit within the teeth, as set forth.

4. A bevel-gear, having a toothed face of sheet-metal, a separate back, and a marginal flange which extends from said face over the edge of said back, as set forth.

5. A bevel-gear, having a toothed face of sheet-metal, a separate back having a series of projections which fit within the teeth, and a marginal flange which extends from said face over the edge of said back, as set forth.

6. A bevel-gear, having a toothed face of sheet-metal, a web extending rearward from said face beneath the teeth and thence inward, and a back extending forward beneath the teeth and thence inward, as set forth.

In testimony whereof, I affix my signature in presence of two witnesses.

CHARLES J. REED.

Witnesses:

LOUIS DU HADWAY,

WILLIAM H. REMSEN.