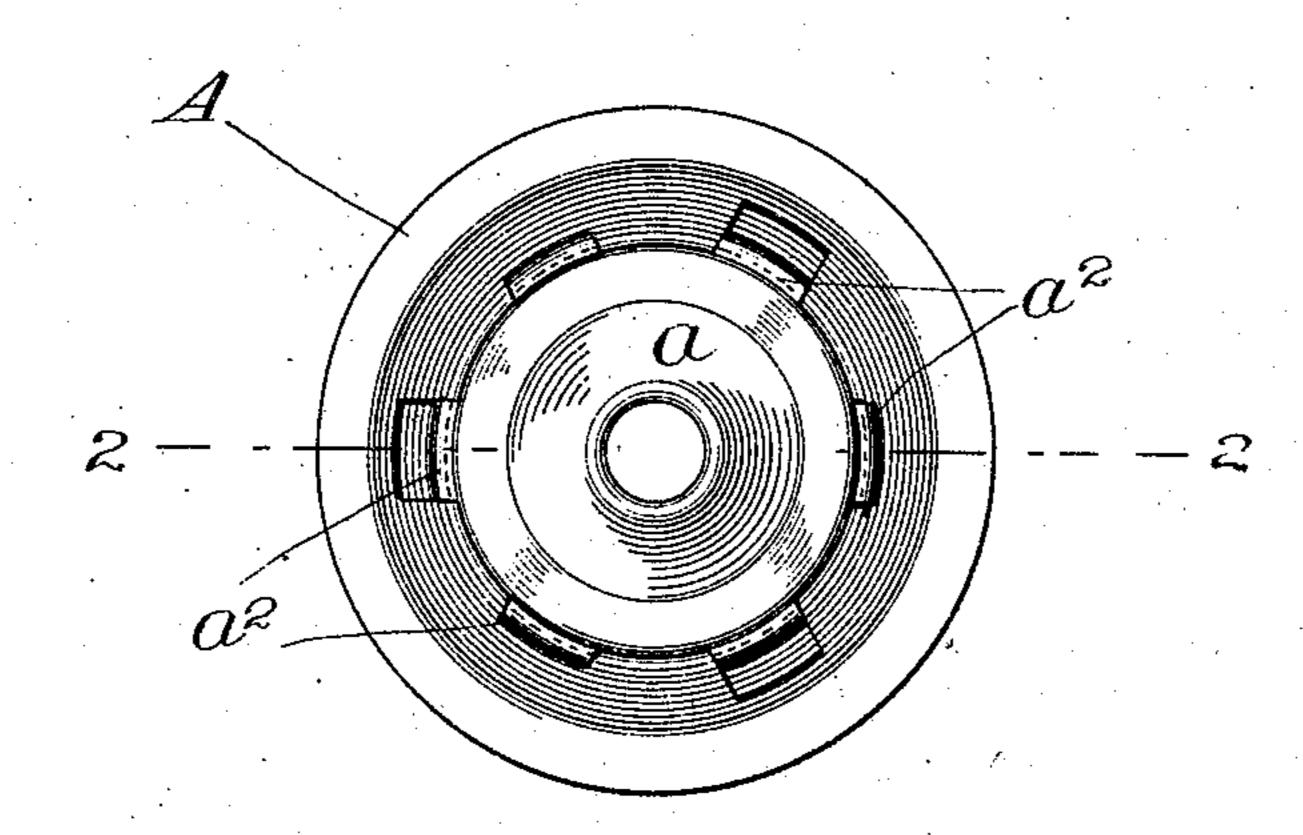
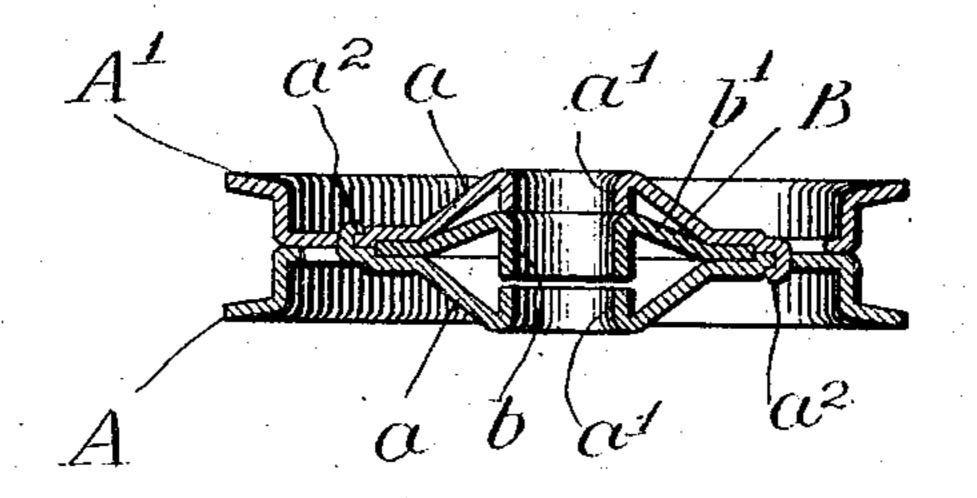
G. C. GARDNER.
SHEET METAL PULLEY.
APPLICATION FILED AUG. 12, 1904.

F10.1.



F12.2.



Witnesses: A. M. Cannall F. M. Connell

Inventor; George C. Gardner Bitner, Wiles & Therve

## United States Patent Office.

GEORGE C. GARDNER, OF CHICAGO, ILLINOIS.

## SHEET-METAL PULLEY.

SPECIFICATION forming part of Letters Patent No. 785,257, dated March 21, 1905.

Application filed August 12, 1904. Serial No. 220,452.

To all whom it may concern:

Be it known that I, George C. Gardner, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sheet-Metal Pulleys, of which the following is a specification.

My invention relates to certain new and useful improvements in sheet-metal pulleys; and its object is to produce a device of this class which shall have certain advantages, which will appear more fully and at large in the course of this specification.

To this end my invention consists in certain novel features, which are shown in the accompanying drawings as embodied in my preferred form of construction.

In the aforesaid drawings, Figure 1 is a side elevation of my improved pulley, and Fig. 20 2 is a diametrical section in the line 2 2 of Fig. 1.

Referring to the drawings, A A' are two side plates having their outer margin stamped laterally from the original plane of the plates, so 25 that when the two are placed together a circumferential groove will be formed on the pulley. The plates are also stamped laterally from the original plane of the plate at the center to form inclined portions a, the inner edges 30 of said inclined portions being turned back toward the original plane of the plate to form beads a'. The two plates A A' are placed together, as illustrated in Fig. 2, and between them is interposed a middle plate B, consist-35 ing of a cylindrical bead b and a circular web b', which lies between the flat portions of the plates A A'. Each of the plates A A' is provided with a plurality of alternating perforations and laterally-stamped tongues  $a^2$ , and 40 when the pulley is assembled the laterallystamped tongues are passed through the perforations and clenched in place, as illustrated in the drawings, thereby forming a structure securely fastened together and provided with 45 a practically continuous cylindrical opening which will run upon a shaft. The three beads stamped from the two side plates and the sin-

gle middle plate form together a bearing-surface of considerable extent, and the annular recess which surrounds these beads provides 50 a chamber in which a lubricating substance can very conveniently be placed.

I realize that considerable variation is possible in the details of this construction without departing from the spirit of the invention, 55 and I do not, therefore, intend to limit myself to the specific details herein shown and described.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described the combination with two opposing side plates bent outward at their periphery to form a groove and stamped apart at their center, each plate being provided with an inwardly-extending 65 cylindrical bead at its inner edge, of a middle plate having a cylindrical bead in line with the beads on said side plates and a web embraced between said side plates.

2. The combination with two opposing side 70 plates stamped outward at their margin to form a groove and separated at their centers, of a middle plate having a web embraced by said side plates, inwardly-extending cylindrical beads on said side plates, a cylindrical 75 bead on said middle plate in line with the beads on said side plates and tongues on the side plates clenched through corresponding perforations to lock the plates together.

3. The combination with two plates having 8c central annular beads stamped therefrom, of a hub-plate secured between said main plates and tongues on one of said main plates clenched through perforations in the other plate to lock the plates together.

In witness whereof I have signed the above application for Letters Patent, at Chicago, in the county of Cook and State of Illinois, this 9th day of August, A. D. 1904.

GEORGE C. GARDNER.

Witnesses:

CHAS. O. SHERVEY, RUSSELL WILES.