O. ROESEKE.

SHEET METAL ROLLER.

APPLICATION FILED NOV. 20, 1908.

990,503. Patented Apr. 25, 1911.

Fig. 1.

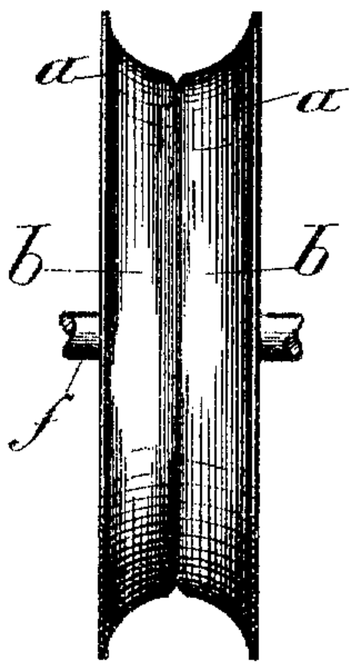


Fig. 2.

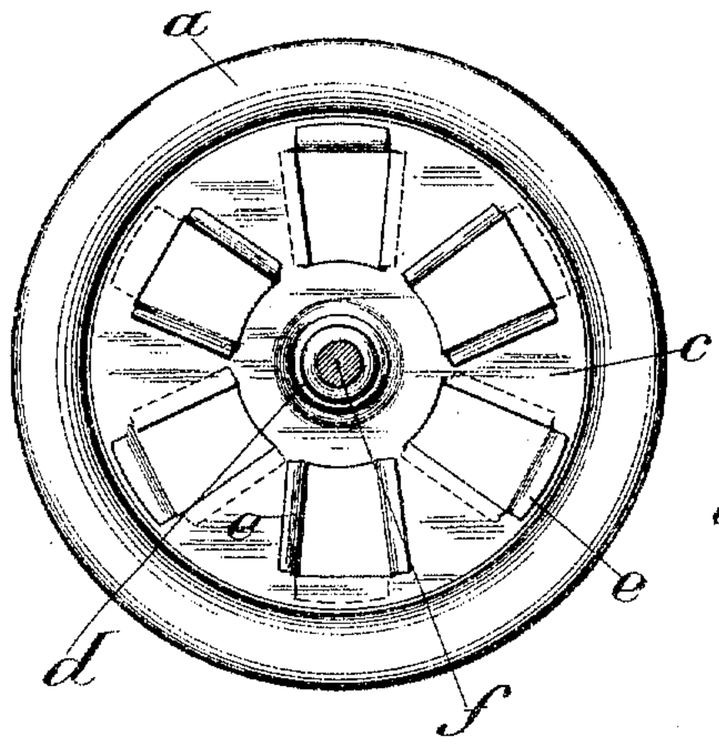


Fig. 3.

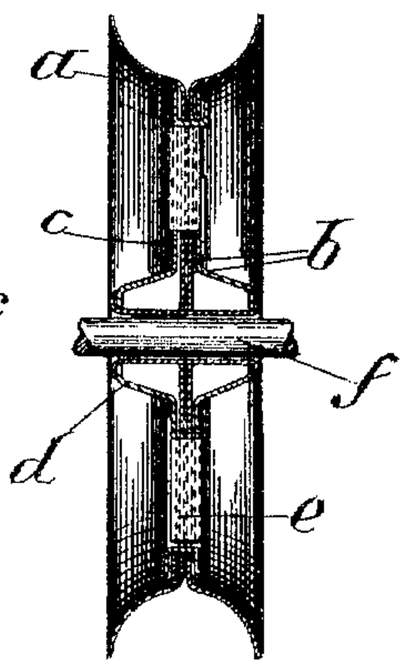


Fig. 5.

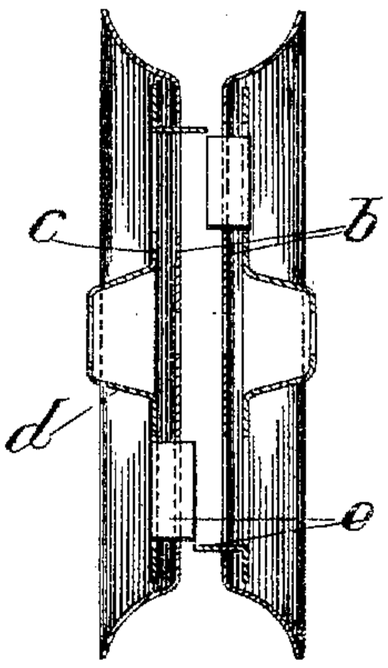
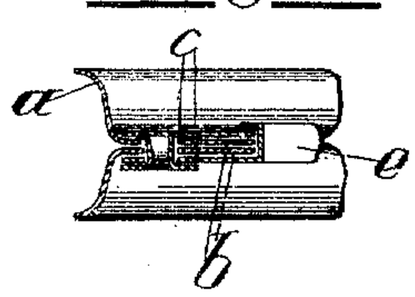


Fig. 4.



Witnesses.
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By his attorneys
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UNITED STATES PATENT OFFICE.

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SHEET-METAL ROLLER.

990,503. Specification of Letters Patent. **Patented Apr. 25, 1911.**

Application filed November 20, 1908. Serial No. 463,583.

To all whom it may concern:

Be it known that I, OTTO ROESEKE, a citizen of the German Empire, residing at Stuttgart, in the Kingdom of Würtemberg, Empire of Germany, have invented certain new and useful Improvements in Sheet-Metal Rollers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a sheave or roller made from sheet metal parts adapted to be assembled as a unitary structure.

My invention relates more particularly to a sheave or pulley made up of a plurality of parts of sheet metal, so arranged when assembled that the structure possesses great strength with a minimum surface of metal in contact with the shaft, whereby the friction is reduced to a minimum.

Other features of my invention will appear from the following description and from the accompanying drawing, in which—

Figure 1 is an elevation of a sheave embodying my invention; Fig. 2, a side elevation of the same; Fig. 3, a vertical section through the axis of the same; Fig. 4, a detail view showing the relation of the outer disks and the inner strengthening disks; Fig. 5 illustrates the relation of the several parts constituting the sheave shown in the preceding figures, and the manner of assembling the same.

Disks *a*, are duplicates in structure, being annular in shape, and having flanges to form a sheave rim. Each of the two disks *a* is provided with a flat portion *b*, and said disks are assembled so as to bring said flat portions *b* in contact with each other. Disks *c*, duplicate in construction, are arranged to contact with the flat portions *b* on the outer surfaces of the same. The outer peripheries of disks *c* will then be brought against the inner portions of the flanges *a*. Disks *c* are each provided with a hub portion *d*, which may be conical in form, as shown. Hubs *d* and disks *b* are provided with openings registering with each other, adapted to receive a suitable shaft *f*.

As shown in Fig. 5, the parts are brought together as above described, and when thus assembled are connected together to form a rigid, unitary structure by means of tongues *e* which are capable of being bent over.

The hub *d* is formed so that it does not lean against shaft *f* with its surface, but when an axial pressure is exerted the disks *b* take up the pressure.

It will thus be seen that my improved sheave is made up of parts which are duplicates of each other, which when assembled form a rigid structure; furthermore, owing to the reduced area of contact with the shaft, friction is minimized.

The construction of the several parts constituting my invention and the arrangement of the same when assembled insures the greatest strains to be brought upon the most rigid parts of my device.

Whereas I have described my invention in its preferred form, it will be understood that my invention is capable of being embodied in various forms within the scope of my invention.

Having thus described my invention, what I declare as new and desire to secure by Letters Patent, is—

1. A roller comprising two circular dished sections having flat base portions with central perforations adapted for receiving a shaft, the rim portions of said dished sections forming a groove when said sections are placed base to base, two circular hub sections exterior of said dished sections and having central hub portions with perforations for receiving a shaft, said hub sections further having flat circular rim portions extending outwardly to substantially the same diameter as the flat base portions of said dished sections, and clamping means passing through registering perforations disposed within the periphery of said flat base portions and said flat rim portions.

2. A roller comprising two circular dished sections having flat base portions with central perforations adapted for receiving a shaft, the rim portions of said dished sections forming a groove when said sections are placed base to base, two circular hub sections exterior of said dished sections and having central hub portions with perfora-

tions for receiving a shaft, said hub sections further having flat circular rim portions extending outwardly to substantially the same diameter as the flat base portions of said dished sections, and clamping flanges integral with either of said two hub sections and passing through registering perforations disposed within the periphery of said flat base portions and the other of said hub sections.

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

OTTO ROESEKE.

Witnesses:

JEAN GULDEN,

HERMANN HOPPE.