

No. 812,488.

PATENTED FEB. 13, 1906.

W. C. FISCHER.  
SHEAVE.

APPLICATION FILED OCT. 3, 1904.

Fig. 1.

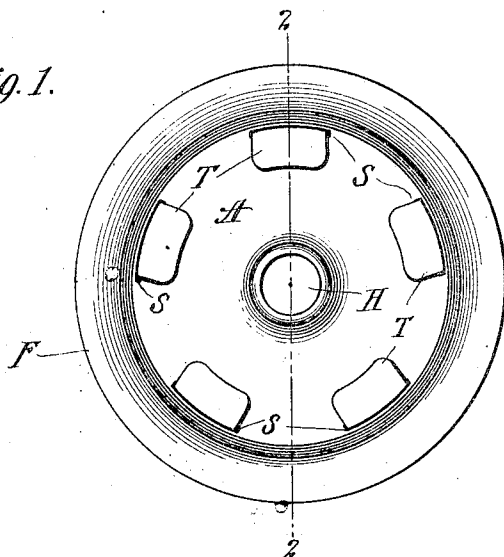


Fig. 2.

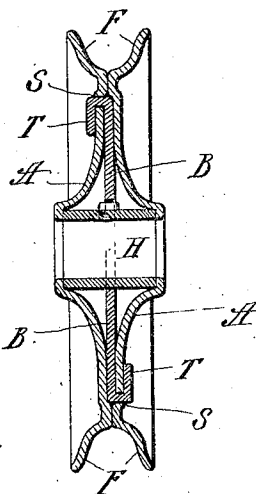


Fig. 3.

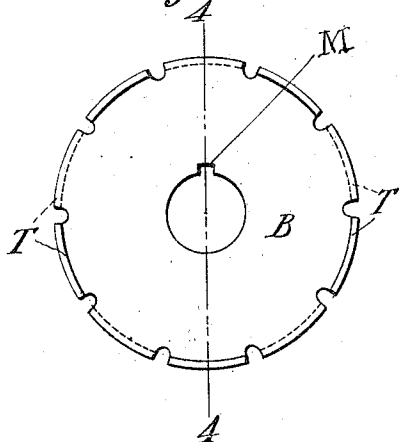


Fig. 4.

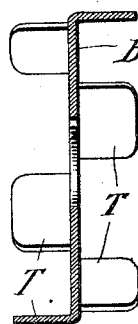
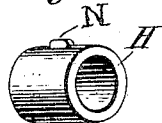


Fig. 5.



Witnesses  
Jacob S. Ober  
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By his Attorneys Bird & Tarbox

# UNITED STATES PATENT OFFICE.

WILLIAM CHARLES FISCHER, OF NEW YORK, N. Y., ASSIGNOR TO STANDARD PULLEY MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

## SHEAVE.

No. 812,488.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed October 3, 1904. Serial No. 226,947.

### *To all whom it may concern:*

Be it known that I, WILLIAM CHARLES FISCHER, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Sheaves, of which the following is a specification accompanied by drawings.

This invention relates to sheaves made of sheet metal; and the objects of the invention are to enable such a sheave to be lightly and readily constructed, yet of great strength and of few parts.

Further objects of this invention will hereinafter appear; and to these ends the invention consists of a sheave as a new article of manufacture for carrying out the above objects, embodying the features of construction and combination of elements and arrangement of parts, substantially as hereinafter fully described and claimed in this specification and shown in the accompanying drawings, in which—

Figure 1 is an elevation of a complete wheel. Fig. 2 is a cross-section on the line 2 2 of Fig. 1. Fig. 3 is an elevation of the middle piece removed. Fig. 4 is a cross-section on the line 4 4 of Fig. 3. Fig. 5 is a perspective view of the hub-piece.

The sheave is formed of two similar side plates A A and a middle piece B, all of which may be stamped from cold sheet metal. The side plates A A are provided with flanges F F, so that when the two are placed together to form the sheave these flanges form a groove or rim. A series of slots are formed in the side plates near the flange F, and a central aperture H is provided for a hub or axle. The middle piece B is provided with a series of tongues T, formed by cutting the edge of the plate, as shown in Figs. 3 and 4. These tongues are bent alternately to either side, and the completed sheave is formed by inserting the tongues through the slots of the two side plates A A and bending the same over upon the side plates. These tongues may be bent either toward the center or toward the rim. I provide a tubular hub, as shown in Fig. 5, by stamping out a piece of

metal and curling the same into a cylinder, having a nib N, which engages the niche M in the central plate B and is thereby prevented from turning.

I know that sheaves have been constructed of sheet metal tied together with tongues; but such are all made by forming the tongue of part of one side plate and inserting it in a slot in the other side plate. That weakens the metal. Again, certain spaces must exist between the tongues, which tends to allow the flanges forming the groove to spread apart. I overcome these defects by the use of the middle or independent locking-piece between the side plates, as the side plates are thereby tied through an entire circle either on one side or the other.

Obviously some features of this invention may be used without others, and the invention may be embodied in widely-varying forms.

Therefore without limiting the invention to the construction shown and described nor claiming equivalents, I claim, and desire to secure by Letters Patent, the following:

1. As a new article of manufacture, a sheave formed of two side plates having flanges to form a rim, and a middle piece provided with tongues, the said side plates being provided with slots through which said tongues protrude and said tongues being bent to lock the parts together, substantially for the purposes set forth.

2. As a new article of manufacture, a sheave formed of two side plates having flanges to form a rim, and a middle piece provided with a series of tongues disposed alternately on each side thereof, each of said side plates having a series of slots through which said tongues protrude and said tongues being bent against said side plates to tie the parts together, substantially for the purposes set forth.

3. As a new article of manufacture a sheave formed of two side plates having flanges to form a rim and provided with a series of slots, a middle piece having tongues disposed alternately on each side thereof to cooperate with said slots to tie the parts to-

gether, said middle piece having a central  
circular aperture for a hub and a cylindrical  
hub formed of one piece of metal having a  
lug thereon and integral therewith to engage  
5 a notch in said middle piece, substantially for  
the purposes set forth.

In testimony whereof I have signed my

name to this specification in the presence of  
two subscribing witnesses.

WILLIAM CHARLES FISCHER.

Witnesses:

RUSSELL LORD TARBOX,  
EDWIN N. WHITFIELD.