No. 786,800. PATENTED APR. 11, 1905.

P. DOSCH.

SASH PULLEY.

APPLICATION FILED MAY 11, 1904.

Fig. 1.

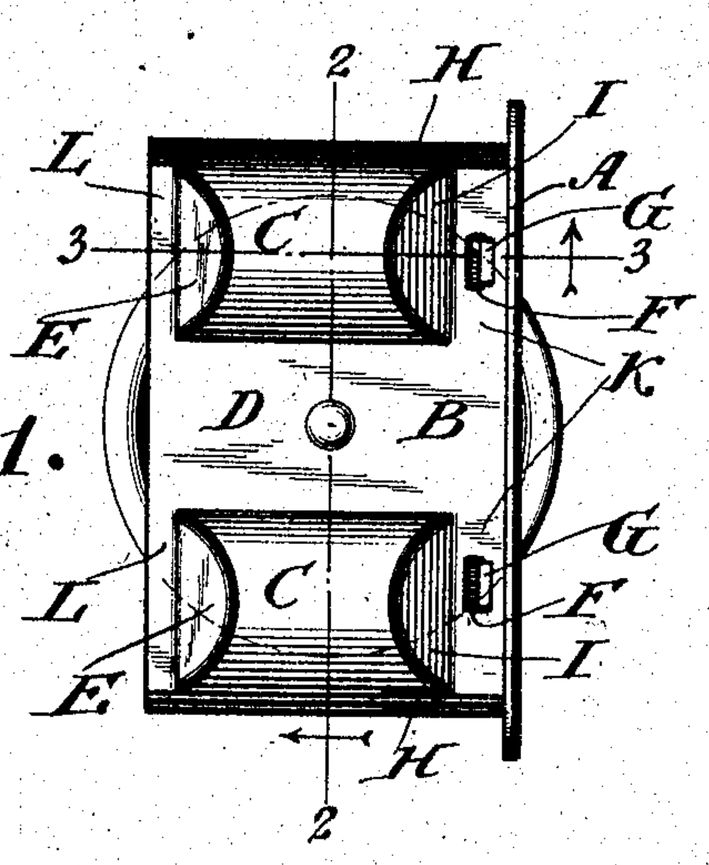


Fig. 2.

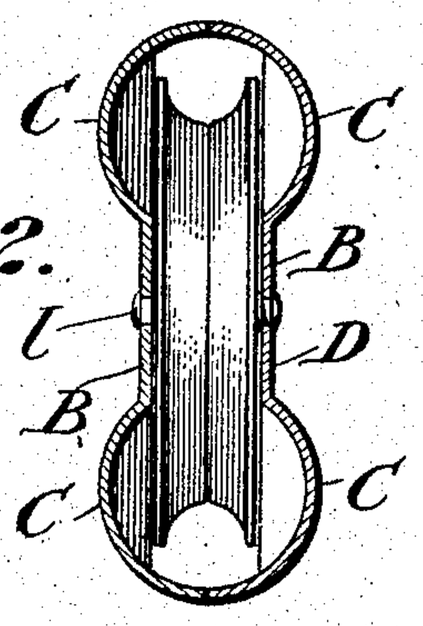


Fig. 3.

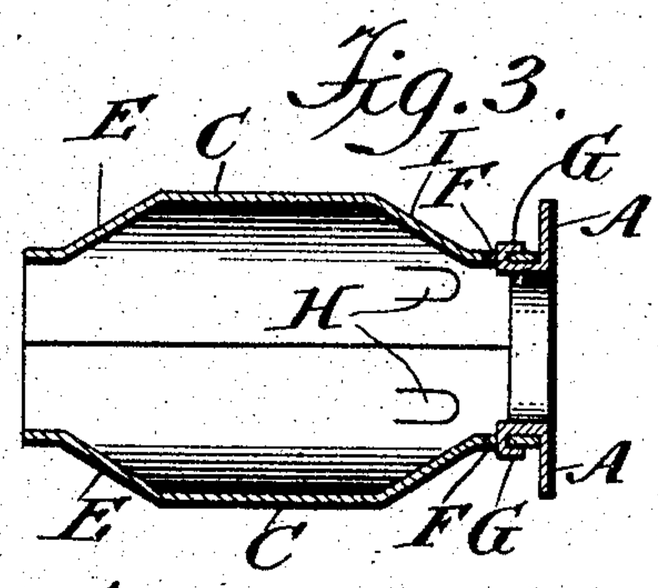


Fig. 4.

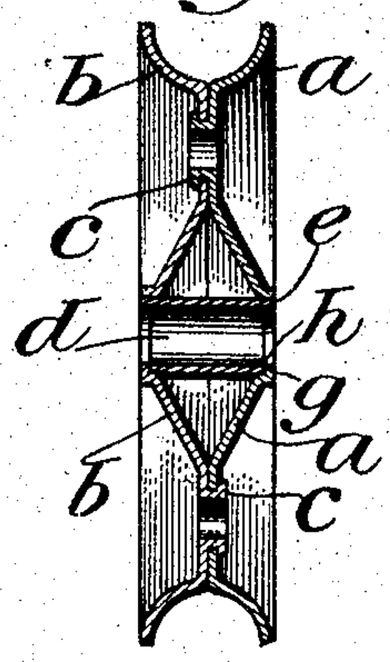


Fig. 5.

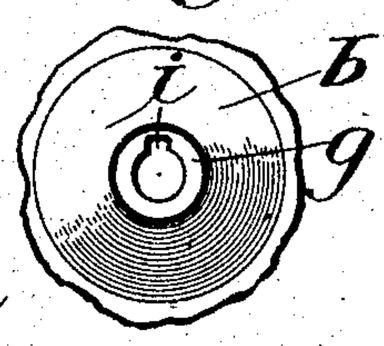


Fig. 6.

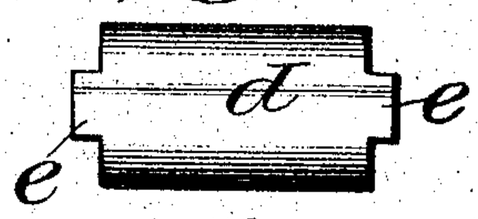


Fig. 7.

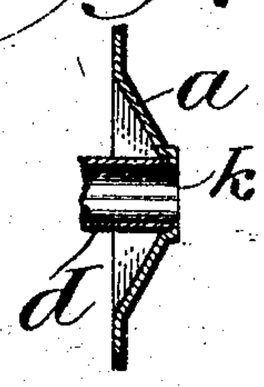
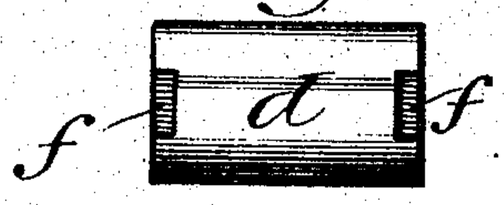


Fig. 8.



Witnesses
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By his Attorney
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No. 786,800. Patented April 11, 1905.

UNITED STATES PATENT OFFICE.

PETER DOSCH, OF BRIDGEPORT, CONNECTICUT.

SASH-PULLEY.

SPECIFICATION forming part of Letters Patent No. 786,800, dated April 11, 1905.

Application filed May 11, 1904. Serial No. 207,351.

To all whom it may concern:

Be it known that I, PETER DOSCH, a citizen of the United States, and a resident of the city of Bridgeport, county of Fairfield, State of Connecticut, have invented a new and useful Improvement in Sash-Pulleys, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 illustrates a side elevation of the invention. Fig. 2 illustrates a longitudinal sectional view thereof on the line 2 2 of Fig. 1, the pulley-wheel being shown in elevation. Fig. 3 illustrates a horizontal sectional view on the line 3 3 of Fig. 1, the pulley-wheel and its axis being omitted. Fig. 4 illustrates a vertical sectional view, shown partly in plan, of the pulley-wheel. Fig. 5 illustrates a detail of the central part of one-half of the pulley-wheel. Fig. 6 illustrates an elevation of the bushing for the pulley-wheel. Fig. 7 illustrates a sectional view showing one means for preventing rotation of the bushing in the pulley-wheel. Fig. 8 illustrates a modified construction of the bushing.

The purpose of this invention is to modify the construction of sheet-metal pulleys as heretofore constructed, so that while the advantages flowing from the employment of sheet metal may be retained the resulting pulley may be strengthened, improved in appearance, and made more durable.

The construction is as follows:

A is the face-plate.

B B are the two side plates. Each of the side plates have two semicylindrical enlargements C C made in them, which exactly coincide when the parts are put together with the auger-bore made in the sash.

D is a flat recessed part of the side plates between the two semicylindrical parts C C, which is adapted to slide into the recess made in the sash by the intersection of the central auger-bore with the two end ones.

The lower edges of the semicylindrical parts C C are beveled, as at E, so that when the sash-pulley is driven into the mortise made in the sash this beveled part crowding against the sides of the mortise will force the two side plates of the pulley firmly together, holding the several parts of the structure rigidly in proper relation to each other.

F F are two openings or holes made in each of the side plates, in which a lip G struck out from the face-plate (see Fig. 3) engage, whereby the face-plate is held to the side plates and the side plates are firmly held together.

H H are points partially cut from the metal of the side plates, which are adapted to be set out into the wood of the sash by a blow delivered upon them with a nail set and hammer, as well understood, after the sash-pulley has been duly set in the sash.

The upper ends of the semicylindrical parts C are beveled off, as shown at I, the same as the lower parts. This is so as to give additional strength to the structure by means of the angles produced in the metal and also so as to produce a relatively wide flat surface K, extending entirely across the upper edge of each of the side plates, in which the openings F F can be made and which also add to the appearance and strength of the structure, and beyond the inclined surfaces E E there is another flat ledge L, similar to although narrower than the ledge or surface K. This likewise adds to the appearance of the device, and by reason of the angling of the metal as it passes from the plane of the inclined surfaces E E to the flat ledge or surface L, which is in the same plane as that of the general surface of the side plates, the structure is much stiffened.

It will be noted that under my construction each of the side plates is a continuous solid sheet or piece of metal, its structure not being cut into in any place excepting where the two small openings F F are made for the receipt of the lips from the face-plate, and also, of course, the opening at the wheel-axis. This, however, instead of weakening the structure is a special element of strength in it, because of the bolt or rivet which passes through the side plates and the hub of the wheel at this point.

Referring now to the wheel, it is made in two parts *a* and *b*, respectively, (see Fig. 4,) which are eyeleted together at *c c*, the eyelets and eyelet-holes alternating in the two halves. The hub of the wheel is made in the form of

a hardened-steel bushing *d*, which may be a section of seamless steel tube, and in order that it may be held rigidly to the wheel, so that its rotation relative thereto shall be prevented, this bushing *d* is provided at its ends with projections *e e* (see Fig. 6) or recesses *f f*. (See Fig. 8.) In the side plates *a* and *b*, respectively, of the wheel at the central opening provided for the reception of the bushing there is a ledge *g* formed, against which the end *h* of the bushing rests, and there is a notch *i* cut out from one side of this ledge or shoulder *g*, in which the projecting part *e* of the bushing enters, so that when the parts are put together and fastened in position these ledges *e e*, engaging with the two notches *i*, one on each side of the wheel, will effectively prevent rotation of the bushing relative to the wheel.

When the alternative construction (shown in Fig. 8) is employed—that is to say, one in which the bushing is provided with recesses *f* instead of the projections *e*—a portion of the metal at the opening in the side plates for the axis, as shown at *k*, (see Fig. 7,) is swaged over and made to enter the recesses *f* in the bushing, whereby the bushing in this alternative construction is likewise held immovable relative to the body of the wheel.

l (see Fig. 2) is a rivet which passes through the two side plates and through the bushing in the wheel, the ends of which are upset, as usual.

It will be obvious to those who are familiar with this art that modifications may be made in the details of construction without departing from the essentials of the invention. I therefore do not limit myself to the specific details described and claimed.

I claim—

In a sash-pulley a sheet-metal wheel composed of two parts, each provided with perforations and eyeleting projections punched therefrom, and each having a central opening entirely surrounded by a flat ledge, a tubular one-piece bushing made of hardened steel inserted between the halves of the wheel the squared ends of which rest circumferentially against said ledges, an interlocking surface or part formed on the edge of the end of the bushing and a coacting part on the wheel, whereby the rotation of the bushing is prevented.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

PETER DOSCH.

Witnesses:
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F. M. VONSBACH.