

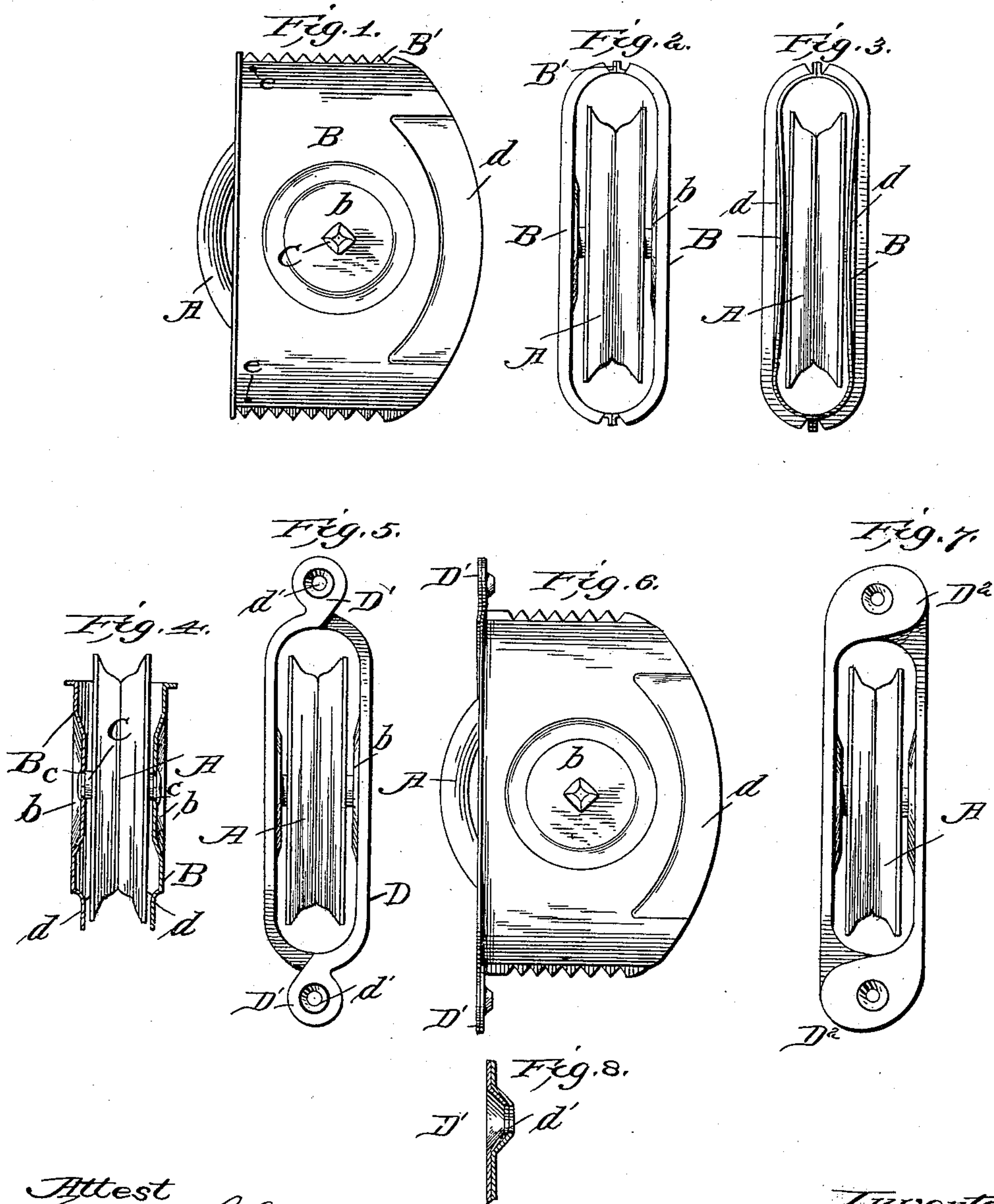
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Patented July 19, 1898.

W. R. FOX.
SASH CORD GUIDE.

(Application filed Feb. 23, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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SASH-CORD GUIDE.

SPECIFICATION forming part of Letters Patent No. 607,739, dated July 19, 1898.

Application filed February 23, 1898. Serial No. 671,324. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. FOX, a citizen of the United States, residing at Grand Rapids, county of Kent, and State of Michigan, have invented certain new and useful Improvements in Sash-Cord Guides, of which the following is a specification.

My invention relates to improvements in sash-cord pulleys and shells composed of sheet metal; and the object of the invention is to provide a construction which may be produced at an extremely low cost by stamping from sheet metal and in which all necessity for riveting the parts together may be dispensed with.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of one form of the invention. Fig. 2 is a plan view. Fig. 3 is a bottom view of the same. Fig. 4 is a detailed sectional view showing the pulley-axle serving as the connecting-rivet between the two sides. Fig. 5 is a face view of a modified form, and Fig. 6 a side view of the same, while Fig. 7 is a similar view of a still further modification. Fig. 8 is a detail sectional view of the overlapped ends D'.

The pulley A may be of any construction, having a hub fitted to turn on the stationary bolt or axle C.

In sash-pulleys it is an important object to effect even a very small saving, either of labor or material, in one article, since they are used in such large quantities and the competition is very close. I therefore have made the shell or case in two pieces B, each of which forms the wall of the pulley-case on one side and on its upper edge is bent over at right angles to its side plane, so as to extend over the face of the wood in which it is inserted and thus form the face of the case instead of the ordinary face formed by bending the sides out of a single piece of sheet metal. The two sides may be exactly alike and all be struck up in one die at one operation, so that there is a saving of metal and work. The ends are curved inward to form a half-round end of the case, as shown in Fig. 2. Also the edges of the ends are turned out to form flat bearing-flanges in planes parallel to the general

plane of the case, and these flanges B', when the parts of the case are in place, bear firmly on each other. The edges may be serrated to facilitate the entrance of the case into the wood, as shown in Fig. 1. In the case thus made of two parts I have found it practicable to use no other connection for the two sides than the contact-bolt on which the wheel turns. As ordinarily made this bolt or axle serves to hold the parts together, but does not determine or maintain their relative position. By combining, however, the two side pieces so made as above described with a bearing-bolt having shoulders and reduced polygonal ends fitted to corresponding holes in the sides, these holes being alike in shape and arrangement, the two parts are held also against turning out of relation to each other.

The bolt is shown at C, and its outer reduced ends are, as shown in Fig. 1, square and fit square holes, the inner part being round to afford bearing for the wheel. The reduced ends fit the holes and when upset hold the parts in their proper relation, since neither can turn on the bolt independently of the other, and the case may be handled and shipped without disarrangement.

A circular depression *b* is stamped in the center of the wall and a stiffening-corrugation *d* in the lower edge. For further security and a somewhat more elaborate case the sides may also be formed with flanges D, the sheet metal being cut to form these flanges, which are turned into a plane at right angles to the sides of the case, and when the sides are put together these flanges overlap each other, as shown at D' in Figs. 5 and 6. Holes *d'* are made in the overlapping portions in position to register and to receive nails or screws for securing the parts firmly to the wood, thus forming a face-plate for the case and additional security. The metal may be countersunk about the hole to receive the head of the nail or screw, the countersunk portions forming a locking connection. Flanges may be made as shown in Fig. 5 or more full, as shown in Fig. 7 at D². It will be observed that in all forms the two sides are alike and when put together are held by the bolt at the center in their proper position against dis-

placement, and in this condition may be handled or shipped and retain their proper position ready for use.

Having thus described my invention, what I claim is—

1. A sash-cord guide having a body portion formed of duplicate sheet-metal sections having inwardly-turned abutting ends in combination with the pulley-axle having non-circular ends engaging correspondingly-shaped holes in the sections, said pulley-axle holding the abutting ends together, and the sections against all relatively independent movement, substantially as described.

2. A sash-cord guide having a body portion formed of duplicate sheet-metal sections having inwardly-turned abutting ends and bent-over upper edges in combination with the pulley-axle having non-circular ends engaging correspondingly-shaped holes in the sections, said pulley-axle holding the abutting ends together, and the sections against all relatively independent movement, substantially as described.

3. In a sash-cord guide, a body portion formed of two sheet-metal sections having inwardly-turned abutting side edges, and having outwardly-turned upper edges forming

bearing-flanges, said flanges being extended at the ends and overlapping each other and having alining holes in said overlapped portions, substantially as described.

4. In a sash-cord guide, a body portion formed of two sheet-metal sections having inwardly-turned abutting side edges, and having outwardly-turned upper edges forming bearing-flanges, said flanges being extended at the ends and overlapping each other and having alining holes in said overlapped portions, the edges of said alining holes being swaged downwardly to form countersinks, substantially as described.

5. In a sash-cord guide, a body portion formed of duplicate sheet-metal sections having inwardly-turned ends provided with abutting flanges and outwardly-turned upper edges in combination with a pulley-axle having reduced and non-circular ends holding the abutting flanges in contact, substantially as described.

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

WILLIAM R. FOX.

Witnesses:

GEORGE S. MILLER,
JOHN G. LINDNER.