

(No Model.)

W. R. FOX.
SASH PULLEY.

No. 529,256.

Patented Nov. 13, 1894.

Fig. 1.

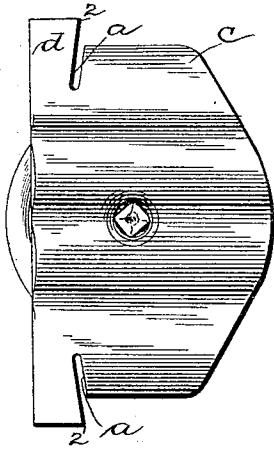


Fig. 2.

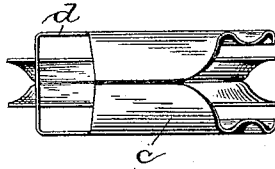


Fig. 3.

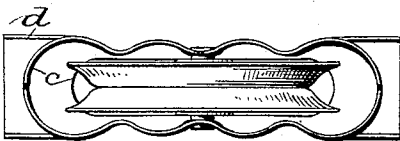
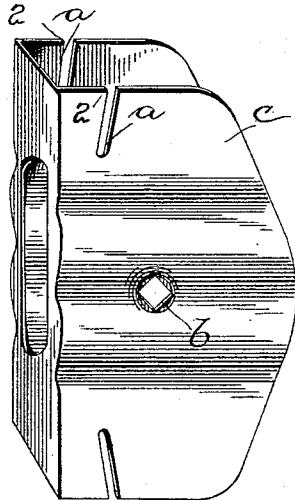


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM R. FOX, OF GRAND RAPIDS, MICHIGAN.

SASH-PULLEY.

SPECIFICATION forming part of Letters Patent No. 529,256, dated November 13, 1894.

Application filed May 8, 1894. Serial No. 510,500. (No model.)

To all whom it may concern:

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

Herein I have described an improvement which I have made in sash-pulleys, the invention being an improvement specially upon a form of sash pulley such as that shown in Letters Patent of the United States, granted me on the 17th day of October, 1893, and numbered 506,684. In the said patent the shell is shown as formed of a single piece of sheet metal having parallel corrugated wings which form the side walls and sustain the rivet on which the wheel turns. The ends of the said walls are also arranged to cut into the wood, when the pulley is driven into place.

In the present invention, which relates solely to the shell of the pulley, I have had two objects in view; the first of these being to insure the accurate and proper entrance of the wing ends into the wood, when the shell is driven to place; and the other to give a better bearing for the shell, and at the same time to prevent any tendency to collapse and to form a guide to prevent the cord from getting off from the pulley. How I have secured these results will appear from the following description, which is illustrated by the accompanying drawings, showing, in—

Figure 1, a side elevation of the completed pulley; Fig. 2, a top or outside view of the same; Fig. 3, a front or inside view of the same; and Fig. 4, a perspective of the shell not completed.

In the manufacture of this pulley I first cut the blank from the stock of sheet metal. It is next bent and corrugated, then in a suitable press cut the opening or slot for the pulley. Afterward a round depression is made in the center groove of the corrugation on each side where the holes for the rivet are located. In another die the shell is slitted on each side as shown at *a*, and a square hole is punched in the depressions at *b* on each side for the rivet. The wheel is then inserted with the rivet which is round and formed with squared ends with square shoulders. Then the shell is placed in another press which is adapted to head over the rivet on both sides, and at the same time to bend the ends of the wings of the shell in

the parts *c* which are below the slit. These parts are bent so that their edges meet and form a semi-circular end fitted to the round holes which are bored in the wood to receive the pulley. The parts *d* of the shell above the wings and in the same plane with the wings are adapted to be driven into the wood outside of the round holes when the pulley is forced into place. When the wood is cross grained or knotty or hard the shell is liable to be turned off on a diagonal line when thus driven, and thus the parts are liable to be distorted and the jamb to be split. To remedy this the slit is inclined downward, as will be observed in Fig. 1. This leaves an acute corner on the parts *d* as shown at 2, and this corner is the most advanced point of the edge of the part *d*. There are four of these and as the shell is driven in they enter the wood first, and so serve to guide the part *c* accurately into the wood and prevent either spreading or crowding of the walls of the shell. This tends to leave the wheel free and in normal position in its relation to the shell.

I have described the ends or parts of the shell marked *d* as bent so that the outer edges meet squarely and bear against each other. This prevents the shell from collapsing at the end when pressure is put upon it. The round form also provides a firm support for the shell in the rounded end of the slot in the wood. It also forms a perfect guide for the cord and renders it impossible that the cord should get off from the pulley.

I claim—

1. In a sash pulley having a shell of sheet metal and sides or wings, extensions *d* and *c* on said sides formed by inclined slits leaving advanced points 2 to enter the wood, the lower part of said extensions being bent to meet at the edges, substantially as described.

2. A sash pulley having a body portion of sheet metal and extensions of the sides, a portion of said side extension being bent inwardly to abut and the remainder extending in the same plane with the main part of the side of the shell, substantially as described.

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

WILLIAM R. FOX.

Witnesses:

JNO. DUFFY,
EARL STOKOE.