JOHN J. COWELL.

Improvement in Sash-Balances.

No. 126,031. Patented April 23, 1872.

Fig. 1.

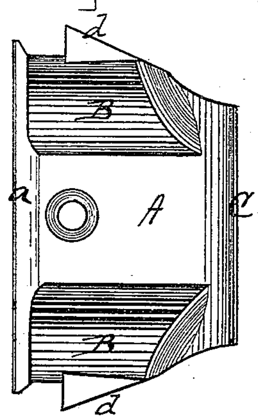


Fig. 2.

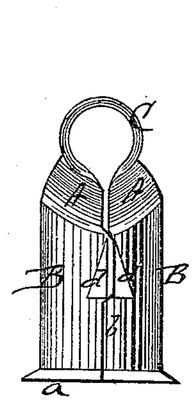


Fig. 3.

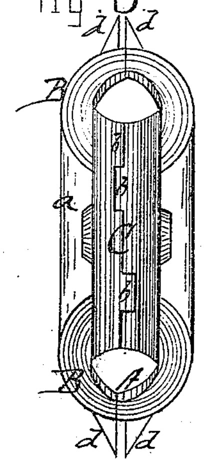


Fig. 4.

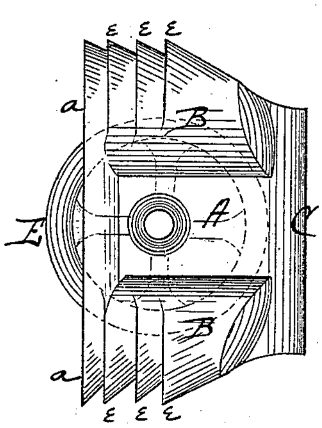


Fig. 5.

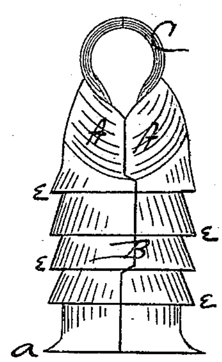
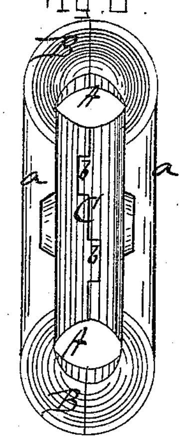


Fig. 6.



Witnesses:

Franck L. Ourand

C. L. Evert

Inventor

John J. Cowell

per Alexander Mason

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN J. COWELL, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. 126,031, dated April 23, 1872.

To all whom it may concern:

Be it known that I, JOHN J. COWELL, of Newark, in the county of Essex and in the State of New Jersey, have invented certain new and useful Improvements in Reversible Rope-Pulleys; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction of a box for holding one or more pulleys made in two pieces of metal, and placed side by side, the two parts being provided with projections and notches on their edges of corresponding size and shape, so that any two parts can readily be fitted together, and having suitable ribs or cutters to secure the same in the window-frame; and also in forming the two parts in semi-tubular swell or bulges on the outer side, all as more fully hereinafter set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view, Fig. 2 an end view, and Fig. 3, a rear view of my sash-rope pulley-box or casing with the triangular cutters. Fig. 4 is a side view, Fig. 5 an end view, and Fig. 6 a rear view, of the casing with the ribs or flanges.

A A represent the two parts of the box or casing, cast from the same pattern, so as to be exactly alike. They are provided with two or more semi-tubular swellings, so as to form the tubes B B crosswise of the box, as shown in Figs. 1 and 4. At the back of the box or casing is formed a tubular chute, C, and around the front edge a flange, *a*. In each part A, at the upper, lower, and rear edges, are projections *b b* fitting in corresponding notches in the edges of the other part which hold the two parts in proper position, so that it is impossible for the parts or plates A A to crowd and bind the pulley. The pulley E is placed on a short spindle, or is provided with journals placed in holes *i* cast in the parts A A. In inserting this casing in the window-frame it is only necessary to bore auger-holes corresponding with the swellings B B, and chip out between said holes to fit the pulley to any purpose; and by the chute C the rope is very readily adjusted, as it must shoot downward. The swellings B B at the end of the box are very important, when considered with the dropping away of the metal between said swellings—important, because they fit snugly in the auger-holes in the window-frame, and then it is not necessary to cut away wood neatly between the two auger-holes, as the sides of the box are less in diameter than the diameter of the swellings; by reason of the falling away of the metal said sides are not liable to bind in the wood. The boxes can, by reason of this construction, be more easily and cheaply inserted in the window-frame, and will be held just as securely and snugly in place as if the sides were more neatly fitted to the wood. The flange *a* is so made on each part A as to present a perfect front, and finish the face, and fit the pulley to the hole, leaving nothing exposed to view but the front of the pulley; it also prevents the pulley from penetrating the hole deeper than desired. This flange may be extended so as to be fastened by screws when no cutters or ribs are used. *d d* represent triangular cutters cast on the ends of the casing, which cutters cut their way into the auger-holes, no matter how irregular the holes may be bored, and and effectually hold the pulley fast. In place of these cutters on the ends of the casing I may use ribs or flanges *e e* running across the ends, as shown in Fig. 5, which will answer the same purpose. The box or casing thus constructed is reversible, and can be used on either side of the frame, and either side up. The advantages of this casing are, the ease of its application. It saves labor from the very beginning of its manufacture, inasmuch as there is but one pattern needed—no assorting of sides in putting together. There is no trouble about putting it in place right side up, and the rope must go down when inserted, and no mortise is to be made for its insertion.

I am aware that a box or casing for sasqrope pulleys has been made in two parts, and therefore I do not claim this broadly as my invention; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. The within-described pulley-box, made of two pieces of metal placed side by side, each section having projections and notches of corresponding size and shape, so that any two sections can be readily fitted together, all substantially as shown and described.

2. In a pulley-box, I claim the rounded swells or bulges formed on the ends of the pulley-box to fit the auger-holes, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of October, 1871.

JOHN J. COWELL.

Witnesses:
JNO. O. GOODRICH,
FRANK C. LANG.