

J. J. COWELL.
Sash Balances.

No. 136,366.

Patented March 4, 1873.

Fig. 1.

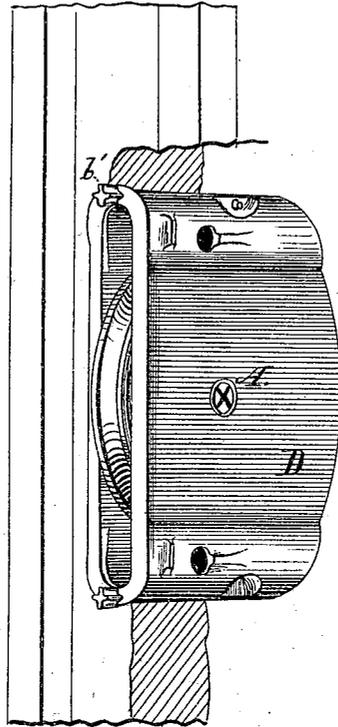


Fig. 2.

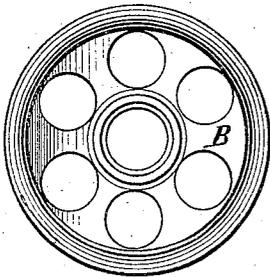


Fig. 3.



Fig. 4.

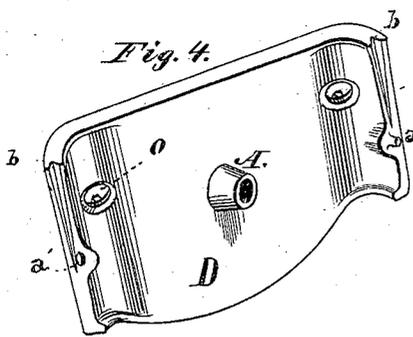
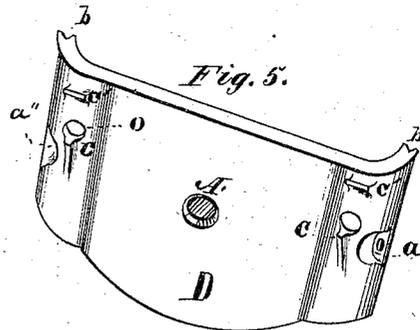


Fig. 5.



Witnesses.

Oliver Drake,
Chas. B. [unclear]

Inventor:

John J. Cowell.
By
Wm. W. Lippitt, Atty.

UNITED STATES PATENT OFFICE.

JOHN J. COWELL, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN SASH-BALANCES.

Specification forming part of Letters Patent No. **136,366**, dated March 4, 1873.

To all whom it may concern:

Be it known that I, JOHN J. COWELL, of Newark, county of Essex and State of New Jersey, have invented certain new and useful Improvements in Pulleys for Window-Frames and other Purposes; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon and forming a part of this specification.

My invention consists in making the spurs for holding the case of a sash-balance in the wood with orifices behind them, so that said spurs may project forward and still draw from the mold; and it consists, also, in the peculiar-shaped wedge and grooves for tightening the case in the wood.

The inner projecting sectional journal, as already set forth, is for the pulley-wheel to revolve upon, said wheel B being cast with a hole in the center corresponding in size and shape with the journal A. The parts may be secured together by means of a rivet through the journal A. The projections *a* and corresponding recesses *a'* are made to intersect when the parts D are adjusted together, and are for the purpose of preventing said parts from slipping

or becoming disengaged. Behind spur *c* is a cavity, made to facilitate the casting, &c. The tapering grooves *b* are for the purpose of inserting a wedge, in order to force the spurs *c* into the wood, thereby tightening the box in the mortise and preventing it from slipping out; or the wedges may be grooved and the edges of the parts made wedge-shaped to correspond.

In order to prevent said wedges from slipping out, they, as well as the holes for their reception formed by the tapering grooves, should be made somewhat smaller at their outer ends. In some cases, when preferred, a rivet may be used through the journal A.

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

1. The spurs *c*, with holes O in the rear, so that they may project forward and still draw from the mold.

2. The wedge *b'* and corresponding openings *b b*, and nipples *c'*, or their equivalents, when used as and for the purposes herein set forth and described.

JOHN J. COWELL.

Witnesses:

OLIVER DRAKE,
CHAS. BRICE.