

W. DAMEREL.  
SASH BALANCE.

No. 102,658.

Patented May 3, 1870.

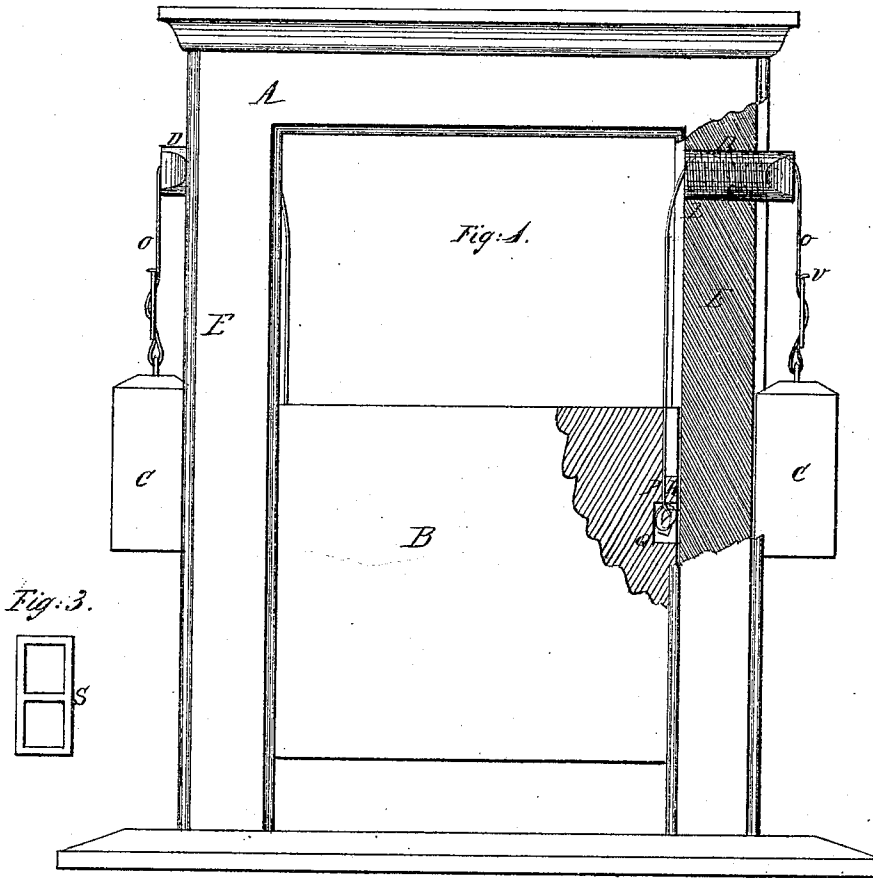


Fig. 3.



Fig. 5.

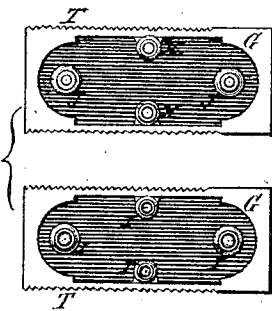


Fig. 4.

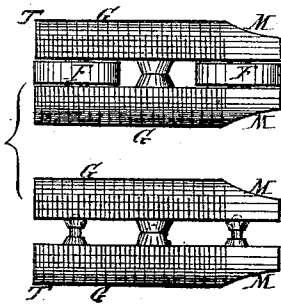


Fig. 2.

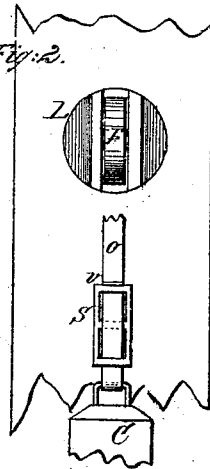
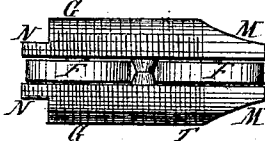


Fig. 6.



Witnesses.  
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# United States Patent Office.

WILLIAM DAMEREL, OF BROOKLYN, NEW YORK.

Letters Patent No. 102,658, dated May 3, 1870.

## IMPROVEMENT IN SASH-BALANCES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM DAMEREL, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Hanging Window-Sashes, and other articles; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is an elevation of my invention partly in section.

Figure 2 shows a portion of a window-casing with a pulley-block inserted therein, showing also the metallic ribbon.

Figure 3 is a view of one of the buckles detached.

Figure 4 shows a pulley-block containing rollers or sheaves, and also the same block having its rollers removed in order to show the pins on which they are mounted, and which also serve to articulate or interlock the parts or divisions of the pulley-block.

Figure 5 shows the inner faces of the parts of the block.

Figure 6 is a modification of the pulley-block, wherein provision is made for handling it and inserting it into a casing from either side.

Similar letters indicate corresponding parts.

My invention relates to hanging window-sashes, blinds, doors, and other articles which are raised and lowered by means of counterbalances, or by means of counterbalancing weights.

My invention consists in forming a pulley-block for window-sashes of two parts, each of which shall be semi-cylindrical, and so constructed as to receive the roller or friction-surface over which the cord or band runs or moves, so that, when the parts are together, a complete cylinder is formed, whereby the block can be readily screwed into the opening adapted to receive it. In order to readily operate such two-part block, I flatten its ends so that it may be grasped by the hand or suitable tool.

The letter A designates a window-frame; and

B, a counterbalanced window-sash, which is intended to move up and down in the frame.

C C are weights suspended by the connections which extend from the edges of the sash, and pass over or through supports or pulley-blocks D D, fixed in the casing B of the frame.

The supports or blocks D are, in this example of my invention, provided with sheaves or rollers F, but the rollers may be dispensed with, and stationary wearing or anti-friction surfaces be inclosed in the supports or blocks D instead thereof.

I make the supports or pulley-blocks of a cylindrical or of a slightly conical shape, and form on their

periphery screw-threads T, to enable me to screw them into round or slightly tapering holes made for them in the casing or frame where the supports or blocks are to be placed.

The supports or blocks are made in parts or segments G G, whose inner sides or faces are provided respectively with studs H and sockets I near their edges, which fit into each other, and thereby articulate or interlock the parts G G, and said parts are also provided with pins J, whose points also enter sockets I, the object of the pins J being to provide spindles on which to mount the rollers or sheaves F, and also to articulate or interlock the parts or divisions of the pulley-block.

The pins J are reduced near their ends, so as to form shoulders that confine the rollers F on one side, and the edges of the sockets I, in which the points of said pins enter, form shoulders that confine the rollers on their other sides.

The sockets I, for the pins J and studs H, are formed in the ends of other studs which project from the parts or divisions G.

The ends of the support or pulley-block are flattened or beveled, to enable me to handle it with facility when screwing or inserting it into its hole or receptacle L.

When I make my support or pulley-block of the same diameter throughout its length, it is desirable to be able to handle it from either end, so that it can be inserted into the hole L from either face of the casing, and, in fig. 6, I have shown how to form the ends of the block so that the flattened or beveled ends M, or projecting lips, like N, can be seized with the hand, or with a wrench, or other suitable tool.

When the support or block is made slightly tapering, it is inserted into the hole L by presenting its smaller end first, and in that case, I flatten or bevel it at its larger end, as is shown in fig. 4.

The support or block is so placed in the casing as to be flush therewith on the face side of the casing, or nearly so, projecting out from its inner side sufficiently far to enable it to be seized by the hand or by a tool and withdrawn or screwed out when occasion requires, and also to suspend the weight at a suitable distance from the casing to prevent undue friction.

It will be observed that by my invention the rollers or wearing-surfaces of the pulley-block or support, and the divisions or cheeks of the block are each separate and independent, the former being held in place by placing the divisions G together, and the whole being secured and kept together and in operative condition by the sides of the hole into which the block is screwed.

My invention enables me to use a round hole or

receptacle, which can be made by a bit, thereby avoiding the expense of mortising a square opening in the casing, as has been heretofore common when the pulley-block casing is composed of two flat parts.

I lay no claim to the devices constituting a pulley-block composed of a single plug or block.

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

1. The two-threaded semi-cylindrical blocks M, inclosing the removable roller or friction-surface, and forming, when closed, a perfect cylinder with a con-

tinued screw-thread, substantially as and for the purpose described.

2. In a pulley-block thus constructed, the flattened ends M M, whereby the block may be readily grasped and operated, substantially as and for the purpose described.

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Witnesses:

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