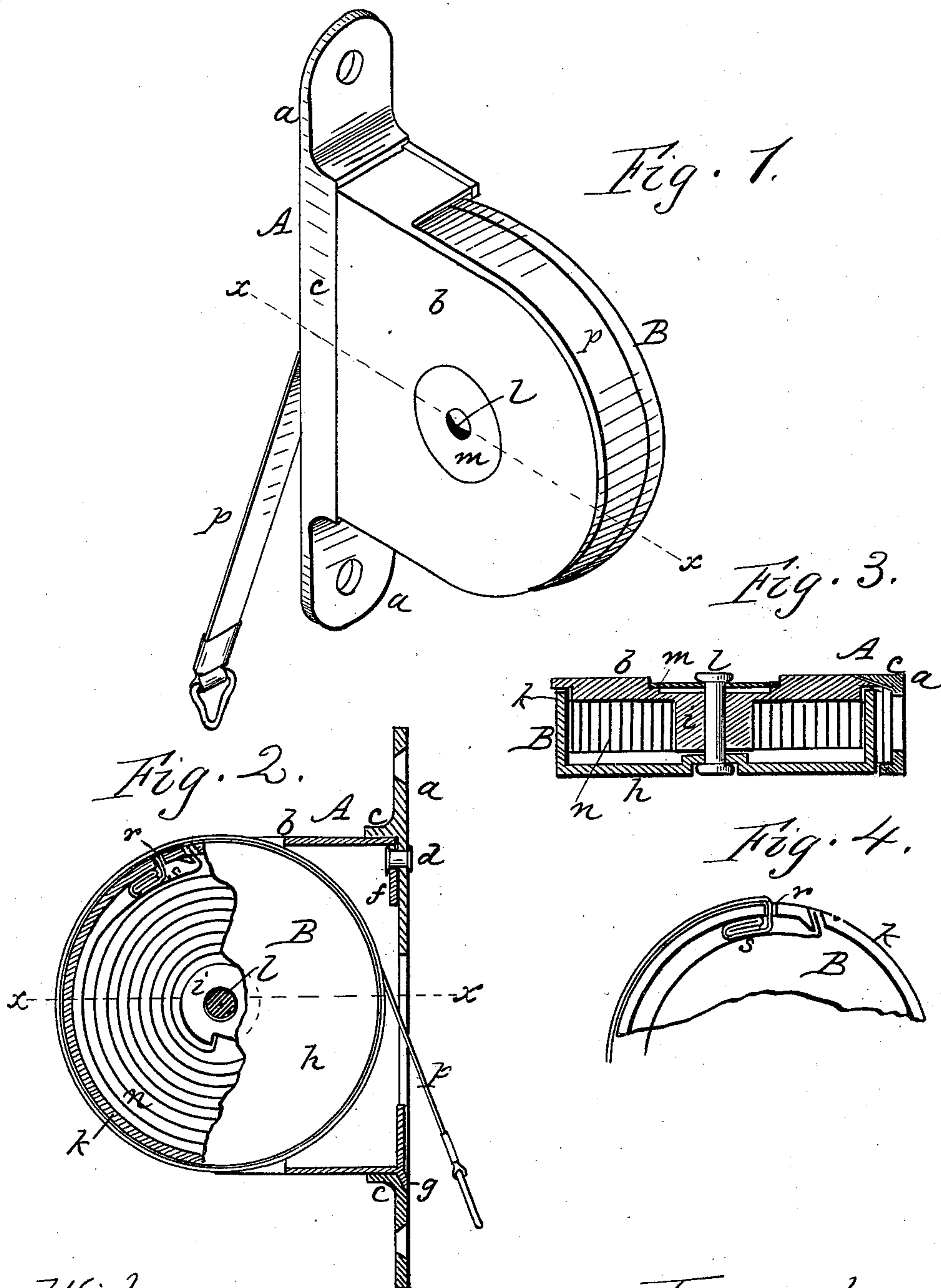


(No Model.)

F. L. ROSENTERER.
SASH BALANCE.

No. 518,278.

Patented Apr. 17, 1894.



Witnesses.

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UNITED STATES PATENT OFFICE.

FRANK L. ROSENTER, OF ROCHESTER, NEW YORK, ASSIGNOR TO THE
CALDWELL MANUFACTURING COMPANY, OF SAME PLACE.

SASH-BALANCE.

SPECIFICATION forming part of Letters Patent No. 518,278, dated April 17, 1894.

Application filed March 16, 1892. Serial No. 425,196. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. ROSENTER, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Sash-Balances; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this specification.

My improvement relates to spring balances, and the object is to simplify the construction and make the device thin, so that it is adapted to car windows as well as windows of larger size.

To this end the invention consists in the construction and arrangement of parts hereinafter described and claimed.

In the drawings—Figure 1 is a perspective view of the device. Fig. 2 is a sectional side elevation, looking on the opposite side from Fig. 1. Fig. 3 is a horizontal cross section in line *xx* of Figs. 1 and 2. Fig. 4 is an edge view of a portion of the drum showing the manner of connecting the tape therewith.

A indicates the case and B the drum. These are the main parts of the device.

The case consists of the face plate *a*, which screws to the jamb, and a single side plate *b*. The other side plate is not used, but the drum is fitted to the single side plate, by which means the device can be made much thinner than usual, and can be fitted in the narrow jamb of a car window, as well as in windows of larger size. The single side plate is made separate from the face plate, and is fitted in a socket *c* of the latter, and is held at the top by a rivet *d*, which fits in a flange *f*, and at the bottom by a tongue *g*, which projects down into a cavity of the face plate. This simplifies the manufacture, as the separate parts can be more readily cast and made lighter than where the whole case is cast in one piece.

The drum B consists of a cylindrical rim having a closed face *h* on one side, which stands outward, and a thin rim *k*, which rests in close contact with the single side plate of the case. The contact of the rim with the side plate forms the brake or resistance to hold the sash. The outer closed face of the drum

makes the finish of one side of the balance, resting flush with the edge of the face plate *a* and obviating the use of a side plate on that side, which is necessary in all ordinary balances of the kind. The side plate *b* is provided with an inwardly projecting hub *i*, and the case and drum are united by a rivet *l*, that is headed up at both ends.

m, is a thin disk forming a spring fitted into a depression in the outer side of the side plate of the case and held by the rivet. When the parts are put together this spring is riveted under such tension or closeness as to produce the necessary bearing of the rim *k*, of the drum against the side plate to make the desired brake action, and when the parts are so put together no change is subsequently required.

n is the ordinary flat coiled spring inside the drum, one end being attached to the fixed hub *i* of the case and the other attached to the inside of the drum.

p is the ordinary tape winding on the drum, and attached to the window sash. In order to make a simple attachment of the tape to the drum, and prevent disengagement under strain, the drum has a slot *r*, cut crosswise in the rim, and the end of the tape is double folded on itself, forming an enlargement *s*. The tape is then simply slid transversely into the slot with the enlargement resting under the rim as shown in Fig. 4. This is a simple and expeditious way of connecting the tape with the drum, and it insures greater strength and less liability of the tape to pull out or away from the drum.

By dispensing with one side plate of the case, as before described, the weight and cost of the device are reduced, and what is of still greater advantage the device is made very thin in cross section, and can be readily fitted to car windows, or other windows where the space is contracted in the jamb.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sash balance, the combination of a face plate, a single side plate fitted removably thereto, a drum with a closed outer face fitted to the side plate and bearing against

the same, a rivet uniting the drum and side plate, a spring connecting the drum with a hub of the side plate, and a tape winding on the drum, as and for the purpose specified.

- 5 2. In a sash balance, the combination of a case with a side plate, a drum fitted thereto a rivet uniting the parts, a spring connecting the drum with a hub of the case, a tape winding on the drum, and a spring disk set into a
10 cavity of the case, held by the rivet and serv-

ing to draw the drum against the side plate, as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

FRANK L. ROSENTER.

Witnesses:

R. F. OSGOOD,

W. H. CALDWELL.