Wocher & Geiger.

Curtain-Fixture.

No. 72768 Patented Dec. 31, 1868.

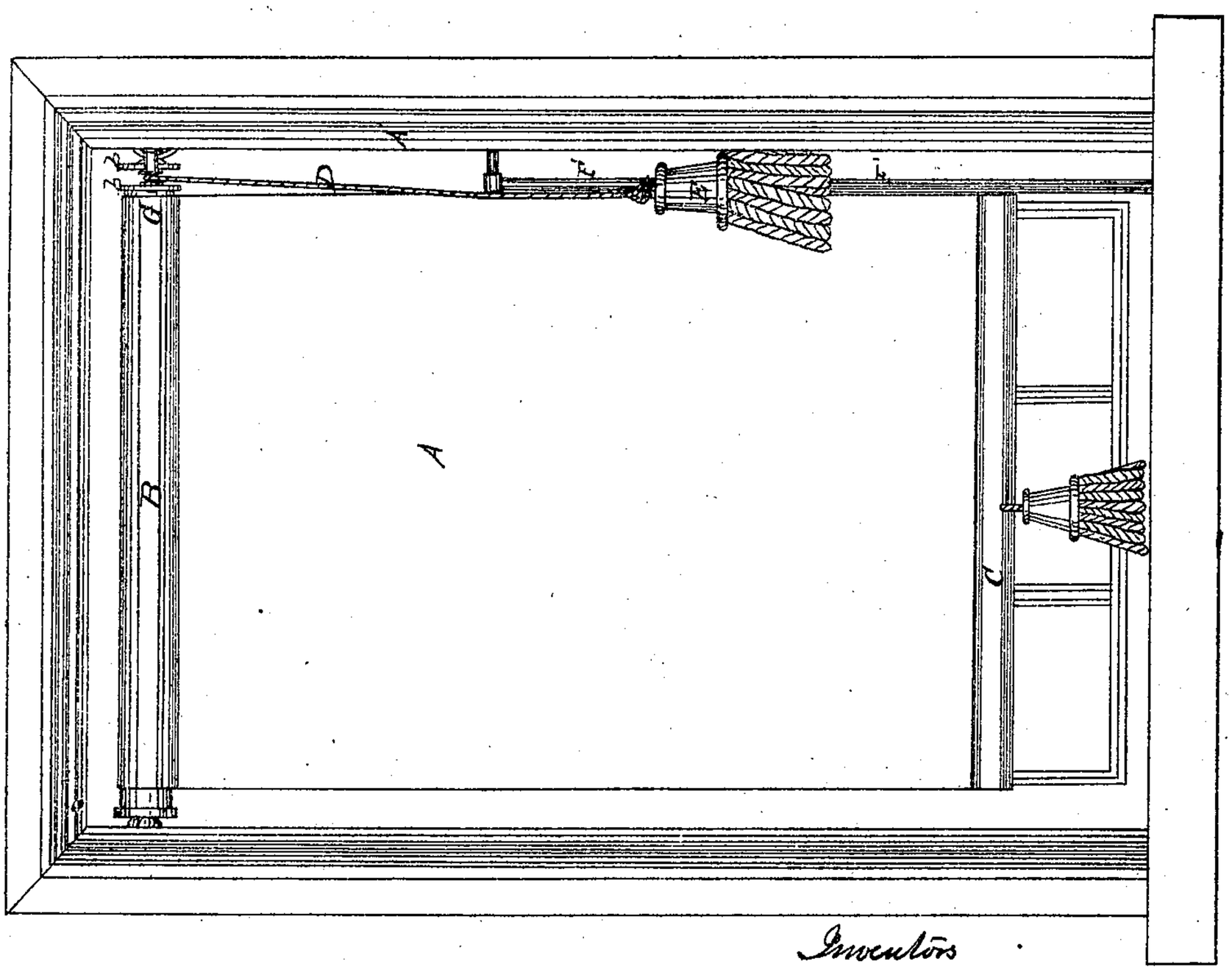

Fig. 2.

Witnesses

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Fig: 3.

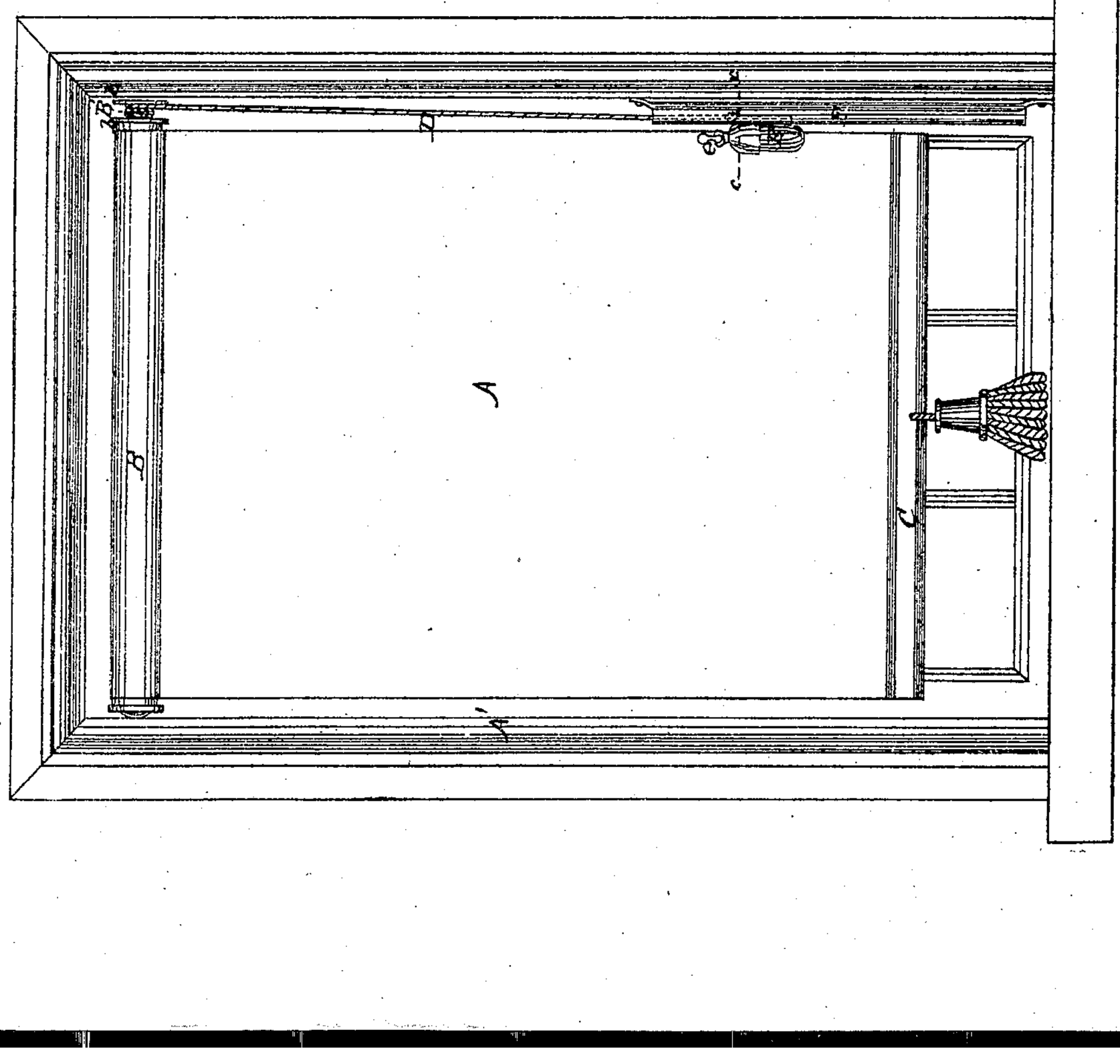

Fig: 1.

United States Patent Office.

HERMAN WOCHER AND BENENDIKT GEIGER, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 72,768, *dated December* 31, 1867.

IMPROVED CURTAIN-FIXTURE.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that we, HERMAN WOCHER and BENENDIKT GEIGER, of the city and county of Philadelphia, and State of Pennsylvania, have invented new and useful Improvements in Curtain-Fixtures; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made a part of this specification.

This invention consists in the employment of a counterbalance-weight, which is attached to the cord by which the curtain is raised, and which, traversing a suitable vertical guide, rises and falls in a rectilinear path, as the curtain is lowered and raised, and serves to sustain the curtain in the desired position, and to assist in the elevation thereof, as will be hereinafter explained.

Figure 1 is an interior elevation of a window-curtain, illustrating our invention.

Figure 2 is a similar view, illustrating a modification.

Figure 3 is a horizontal section of the weight E and guide F, shown in fig. 1, the plane of section being indicated by the line *x x*.

Similar letters of reference indicate corresponding parts in the different figures.

In the drawings, A′ may represent the window-frame, A the window-curtain or shade, and B the upper journalled roller, which rolls and unrolls the curtain in the act of raising and lowering the same. C is the usual bottom stick, which keeps the curtain in its proper pendent and extended condition. That part, B′, of the roller B, which serves as a pulley for the elevating-cord D, is considerably smaller in diameter than the body of the roller, in order to increase the speed of the latter. The upper end of the cord D is attached to one of the flanges or rims *b b*, which confine said cord upon the pulley B′, upon which it is wound and unwound as the curtain is raised and lowered. The lower end of the cord D is attached to a counterbalance, E, which may be a weighted ornamental slide, as shown in fig. 1, or a weighted tassel, as seen in fig. 2. In the illustration given in fig. 1, the weight or counterbalance E is fitted to slide vertically within a tubular guide, F, attached to the window-frame, and, as shown in fig. 2, it is likewise confined to a rectilinear vertical path, by sliding upon the rod F′. In fig. 2 a more favorable direction is given to the cord D, by the employment of the small supplemental pulley G.

The operation is as follows: The weight E is sufficiently heavy to sustain the curtain at whatever degree of elevation it may be made to assume. Of course the curtain may be raised by depressing the weight E, but the curtain may also be raised by merely lifting its lower end, when the weight E will preponderate, and wind up the curtain on the roller B, the curtain coming to rest in the desired position when the support of the hand is withdrawn. The reverse action takes place when the weight E is raised, as the curtain is then free to descend by gravity, and caused to remain in the intended position, by releasing the weight, and thus yielding it to the support of the cord D. The effect of employing a vertical guide is chiefly to prevent any disturbance of the equilibrium between the curtain and weight, which would result from the momentum of the latter, if allowed to swing free. In order to insure the most perfect equilibrium, or the most favorable relative weight of the curtain and weight, the latter is made hollow, or provided with an internal chamber, (see fig. 3,) and with a removable plug or stopper, *e*, fig. 1, which enables the addition or removal of shot or particles of weighty metal, in order to attain the desired graduation.

Having thus described our invention, the following is what we claim as new, and desire to secure by Letters Patent:

1. We claim the combination of the curtain A, roller B, counterbalancing-weight E, elevating-cord D, attached directly to the weight E, and a guide, whereby said weight is confined to a specific path, all arranged to operate substantially as and for the purposes set forth.

2. We claim the combination, with the curtain A, and its essential accessories, of a hollow or chambered supporting-weight, E, adapted to admit of graduation, substantially as and for the purpose set forth.

To the above specification of our new and useful improvements in curtain-fixtures, we have signed our hands, this 17th day of August, A. D. 1867.

HERMAN WOCHER,
BENENDIKT GEIGER.

Witnesses:

JOH. WILHELM SCHNEIDER,
FERDINAND BRECHT.