(No Model.)

R. FRITZ.

WINDOW.

No. 539,126. Patented May 14, 1895.

FIG. 1.

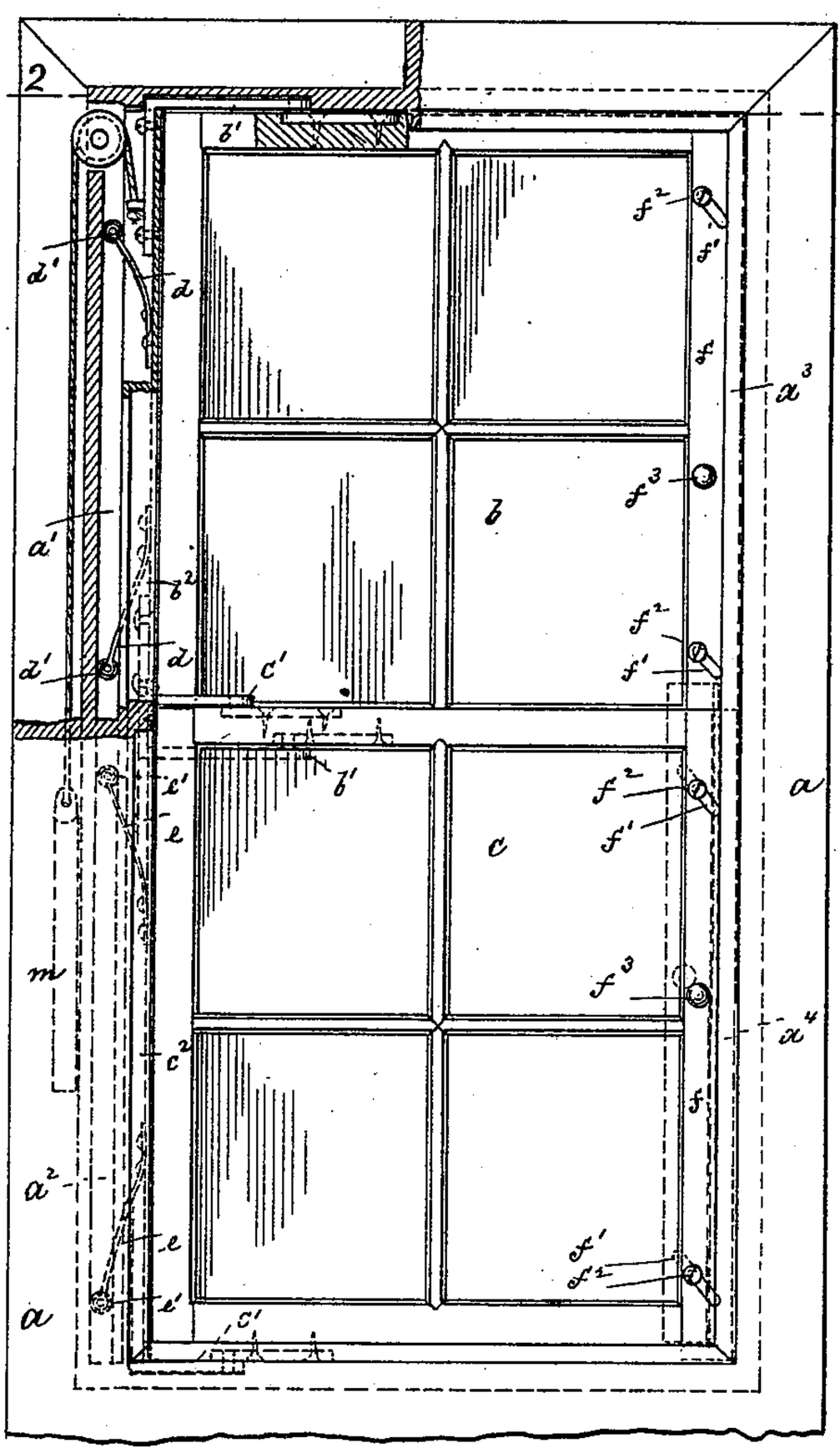


FIG. 3.

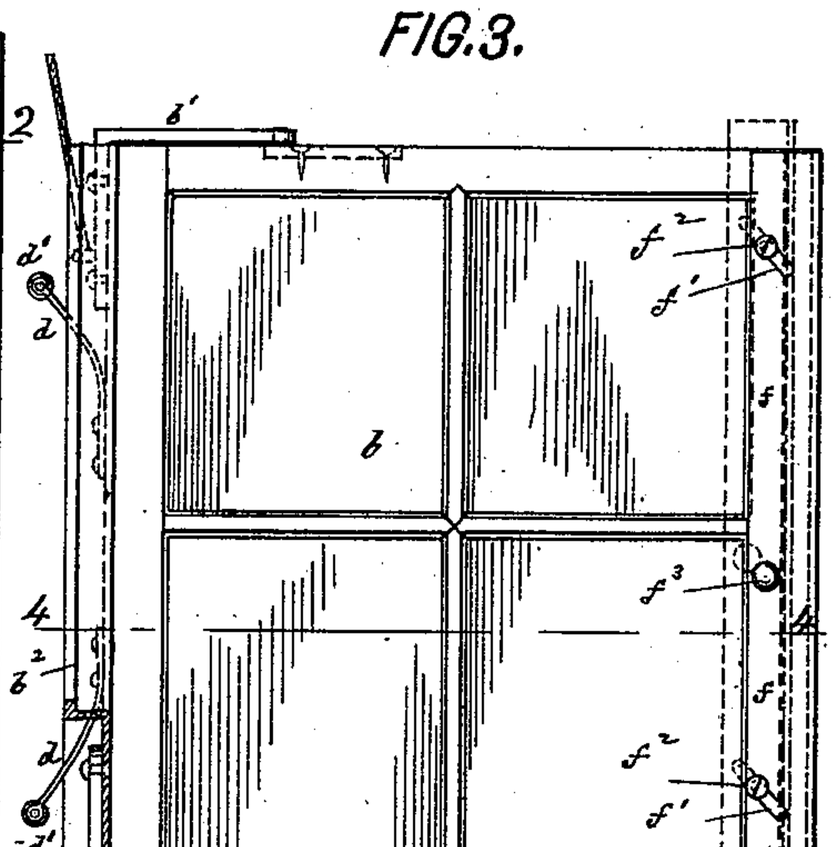


FIG. 4.

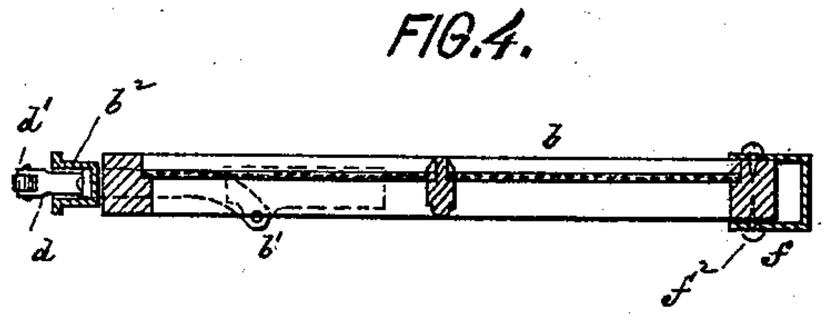
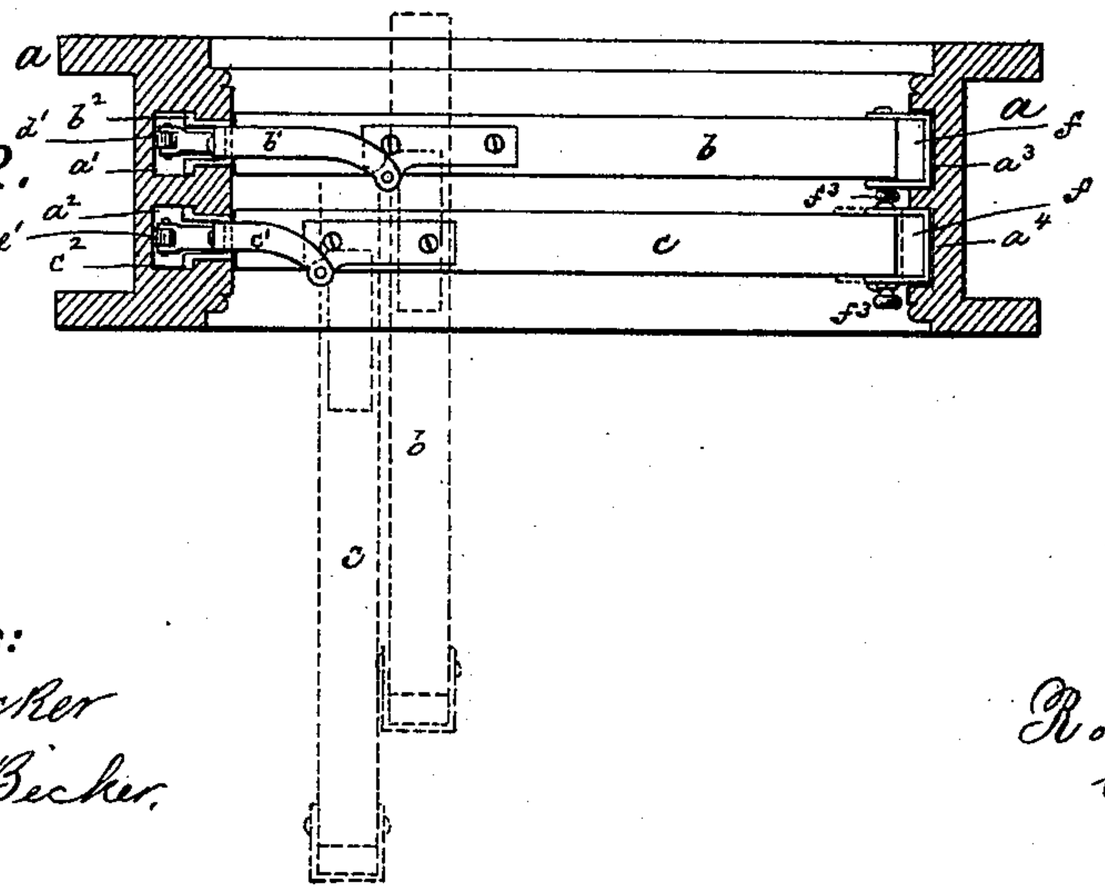


FIG. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ROBERT FRITZ, OF UNION, NEW JERSEY.

WINDOW.

SPECIFICATION forming part of Letters Patent No. 539,126, dated May 14, 1895.

Application filed February 12, 1895. Serial No. 538,071. (No model.)

To all whom it may concern:

Be it known that I, ROBERT FRITZ, of the town of Union, Hudson county, New Jersey, have invented an Improved Window, of which the following is a specification.

This invention relates to a window of the class in which the sashes can be raised and lowered and can also be opened on hinges.

The invention consists in hanging the sashes to sliding spring rails by means of elbows, and inclosing the free ends of the sashes by U shaped slides, that may be projected into the grooves of the window frame.

In the accompanying drawings, Figure 1 is an elevation, partly in section, of my improved window. Fig. 2 is a horizontal section on line 2 2, Fig. 1; Fig. 3, an elevation, partly in section, of one of the sashes detached; and Fig. 4, a horizontal section on line 4 4, Fig. 3.

The letter *a*, represents a window frame containing the upper and lower sliding sashes *b*, *c*, which are respectively hinged at one end to a headed rail or slide b^2, c^2, by the elbows b', c'. These elbows are with their horizontal arms pivoted to the sashes, while their vertical arms pass into and are riveted to the slide. By means of the elbows, the sashes can be swung inward parallel to each other and so as to entirely clear the frame. The rails b^2, c^2, are free to slide within grooves a', a^2, of the frame *a*, and may be connected to the ropes of the ordinary sash weight *m*. To hold the sashes in position vertically, I furthermore secure to the rails b^2, c^2, the springs *d*, and *e*, carrying friction rollers d', e', that bear against the base of the grooves a', a^2, and crowd the sashes toward the opposite side of the frame.

The free ends of the sashes are surrounded by U shaped slides *f*, that enter the grooves a^3, a^4, of the frame and thus form a tight joint between sash and frame. The slides *f*, are provided with inclined slits f', that form ways for the pins f^2, secured to the sash stiles. A button f^3, on the slides permits the latter to be raised or lowered and to be consequently withdrawn from or pushed into the grooves a^3, a^4.

The sashes may be raised or lowered in the ordinary manner. If they are to be swung upon their hinges, the slides *f*, are drawn outward to clear the grooves and closely straddle the edge of the stile.

The sashes are of such a width only that their stiles will never enter the grooves, and thus the sashes are entirely free of the frame and may be swung outward as soon as their slides have been withdrawn. To close the window the free end of the sash is first brought into alignment with the frame and then the slide *f*, is depressed to enter the groove.

It will be seen that with my invention a simple and efficient connection is formed between the free ends of the sashes and the window frame, which permits a ready opening and closing of the sashes.

What I claim is—

The combination of a window frame with sliding rails, springs engaging the same, elbows connected to the rails, sashes pivoted to the horizontal arms of the elbows, U shaped slides that straddle the free ends of the sashes, and means for operating said slides, substantially as specified.

ROBERT FRITZ.

Witnesses:

F. v. BRIESEN,

WILLIAM SCHULZ.