(No Model.)

J. STEINER.

WINDOW SPRING FOR BURGLAR ALARMS.

No. 522,277. Patented July 3, 1894.

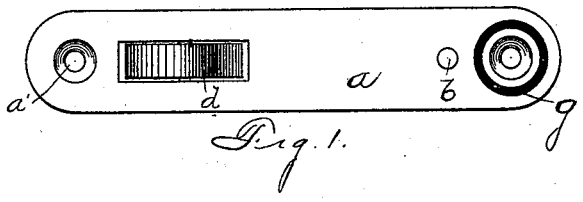

Fig. 1.

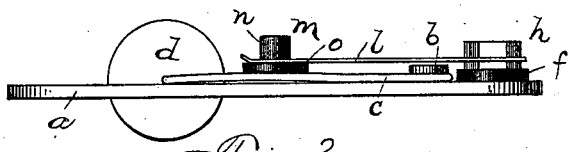

Fig. 2.

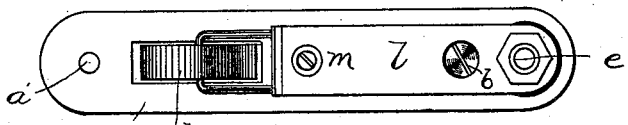

Fig. 3.

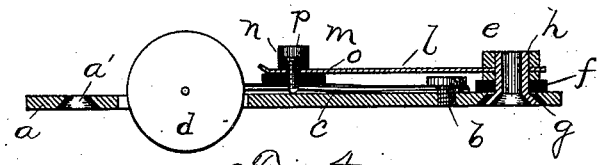

Fig. 4.

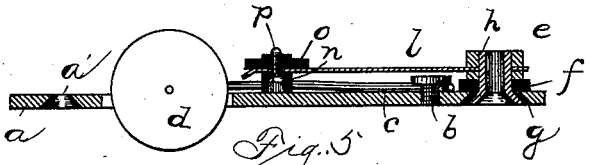

Fig. 5.

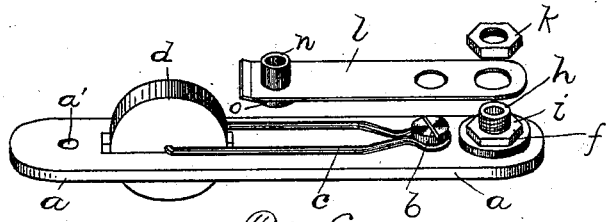

Fig. 6.

WITNESSES
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By Barton & Brown Attys.

UNITED STATES PATENT OFFICE.

JOSEF STEINER, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE WESTERN ELECTRIC COMPANY, OF CHICAGO, ILLINOIS.

WINDOW-SPRING FOR BURGLAR-ALARMS.

SPECIFICATION forming part of Letters Patent No. 522,277, dated July 3, 1894.

Application filed November 4, 1893. Serial No. 490,031. (No model.)

To all whom it may concern:

Be it known that I, JOSEF STEINER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Window-Springs for Burglar-Alarms, (Case No. 6,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to circuit closing switches for burglar alarm systems, particularly for switches in use in windows, generally known as window springs.

Its object is to produce, as an article of manufacture, a window spring having its parts so arranged that it may be readily converted from a closed circuit to an open circuit instrument; that is, that it may be arranged either to close the circuit when pressed upon by the window sash, or to open the circuit when so pressed.

To this end it consists in a novel combination of parts which I will describe in full with reference to the accompanying drawings illustrating my invention.

Figure 1 of the drawings represents a front view of my improved window spring. Fig. 2 is a side elevation thereof. Fig. 3 is a view from beneath. Fig. 4 is a longitudinal section of the window spring, the parts being arranged to open the circuit when the device is operated. Fig. 5 is a similar sectional view showing the parts arranged in position to close the circuit when the window spring is operated. Fig. 6 is a perspective view of the window spring with certain of the parts removed to show their general construction.

Referring to the figures, *a* is a base plate which may be punched from sheet metal. Upon it is mounted, by means of a flat-headed screw *b*, a wire spring or lever *c* whose extremities project forward and carry a roller *d* pivoted upon them projecting through an aperture in the plate *a*. This roller is adapted to press upon the edge of the sash in the usual way and to be pressed inward thereby. The wire spring *c* is retained in place by setting the screw *b* down upon a loop formed in the wire. At one extremity of the plate *a* a post *e* is mounted, insulated from the plate by rubber washers *f g*. The post *e* as a whole is formed by a hollow screw *h* whose broadened head fits into a countersunk opening in the rubber washer *g* and upon which are screwed the two nuts *i* and *k*. A flat spring *l* is slipped over the post beneath the nut *k* so that the latter holds the spring *l* securely in position when the nut *k* is screwed down. The opening through the screw *h* permits the passage of a wood screw to fasten the window spring in place in the window frame in the usual manner, a corresponding countersunk screw hole *a'* being provided near the other end of the plate *a*. The free extremity of the flat spring *l* carries a rubber block *m* composed of a short cylinder or distance piece *n* and a flat disk *o*, the two portions being secured together by a small screw *p* deeply countersunk into the piece *n* and screwing into the disk *o*. The plate *a* and the parts in metallic connection with it constitute one terminal of the electric circuit in the usual manner, while the spring *l* constitutes the other terminal, connection being made with it through the medium of the post *e* from a wire screwed down under the screw passing through the aperture in the post, in the usual way. When the spring *l* is in the position shown in Fig. 4 the circuit is normally closed, the pressure of the spring forcing the point of the screw *p* against the plate *a*. The disk *o* then overlaps the wire spring or lever *c*, the tip of the screw *p* extending between the parallel sides of the wire lever *c*. If, now, the roller *d* be pressed inward, as by the movement of the window sash upon it, the wire spring *c* is likewise bent inward, and bearing against the disk *o* lifts it and the spring *l* upward, separating the contact point of screw *p* from the plate, and thus breaking the metallic connection between the parts and opening the circuit. If, however, the spring *l* be reversed in position, the distance piece *n* being placed below or toward the frame *a* as shown in Fig. 5, the spring *l* is maintained in a horizontal position, being prevented from contact with any of the metallic parts by the abutment of the rubber block *m* against the frame. In this position, the circuit is obvi-

ously maintained normally open, there being no metallic connection between the spring *l* and the frame *a*. When now the roller *d* is pressed inward as before, the wire spring *c* is pressed against the curved tip of the spring *l*, making metallic connection with it, and thus completing the circuit.

Obviously my invention is applicable in connection with other devices, as door springs, commonly employed in burglar alarm systems, but I do not consider it necessary to describe it in connection therewith; but

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

1. The combination in a window spring, of the lever *c* adapted to be actuated by the movement of the sash, and the circuit spring *l* provided with an insulating disk *o* upon one side of it and a contact point upon the other side of it, the circuit spring being adapted to be reversed in position to bring the disk *o* between it and the lever, or to bring the contact point into position to contact with the lever when the latter is moved, substantially as described.

2. The combination with the base plate *a*, of a lever *c* mounted thereon adapted to be actuated by the movement of the sash, the circuit spring *l* arranged parallel with the base plate and provided with an insulating disk *o* adapted to bear upon the lever *c*, and a contact point *p* making connection with the frame *a* and being also provided with a contact point upon the other side of the spring adapted to make connection with the lever *c* when the spring is reversed in position, substantially as described.

3. The combination in a window spring, with the movable lever thereof, of a circuit spring and means for holding the same in a fixed position with relation to the lever, said spring being provided with an insulating disk upon one side of it, the spring being adapted to be placed in position either with the insulating disk interposed between it and the switch lever so as to be moved by the switch lever, or with its metallic surface in juxtaposition to the switch lever to contact therewith, substantially as described.

4. As an article of manufacture a window spring provided with a lever *c* and a circuit spring *l* carrying upon one side of it an insulating disk *o* and a contact point *p* adapted to make connection with the base *a* and upon its other side a distance piece or post *n* to hold it at a fixed distance from the lever *c*, as described.

5. As an article of manufacture a window spring having a lever *c* adapted to be moved by the sash, and a circuit spring *l* adapted to contact with the lever, the spring *l* being provided with an insulating disk *o* upon one side of it, and a contact pin *p*, the spring *l* being adapted to be reversed in position to bring the disk *o* between it and the lever *c* and to bring the point *p* into contact with the base *a*, substantially as described.

In witness whereof I hereunto subscribe my name this 16th day of October, A. D. 1893.

JOSEF STEINER.

Witnesses:
WM. B. WALLACE,
E. R. GILMORE.