

(No Model.)

2 Sheets—Sheet 1.

J. F. FÖRSTER.
DOOR BUFFER.

No. 603,785.

Patented May 10, 1898.

FIG. 1.

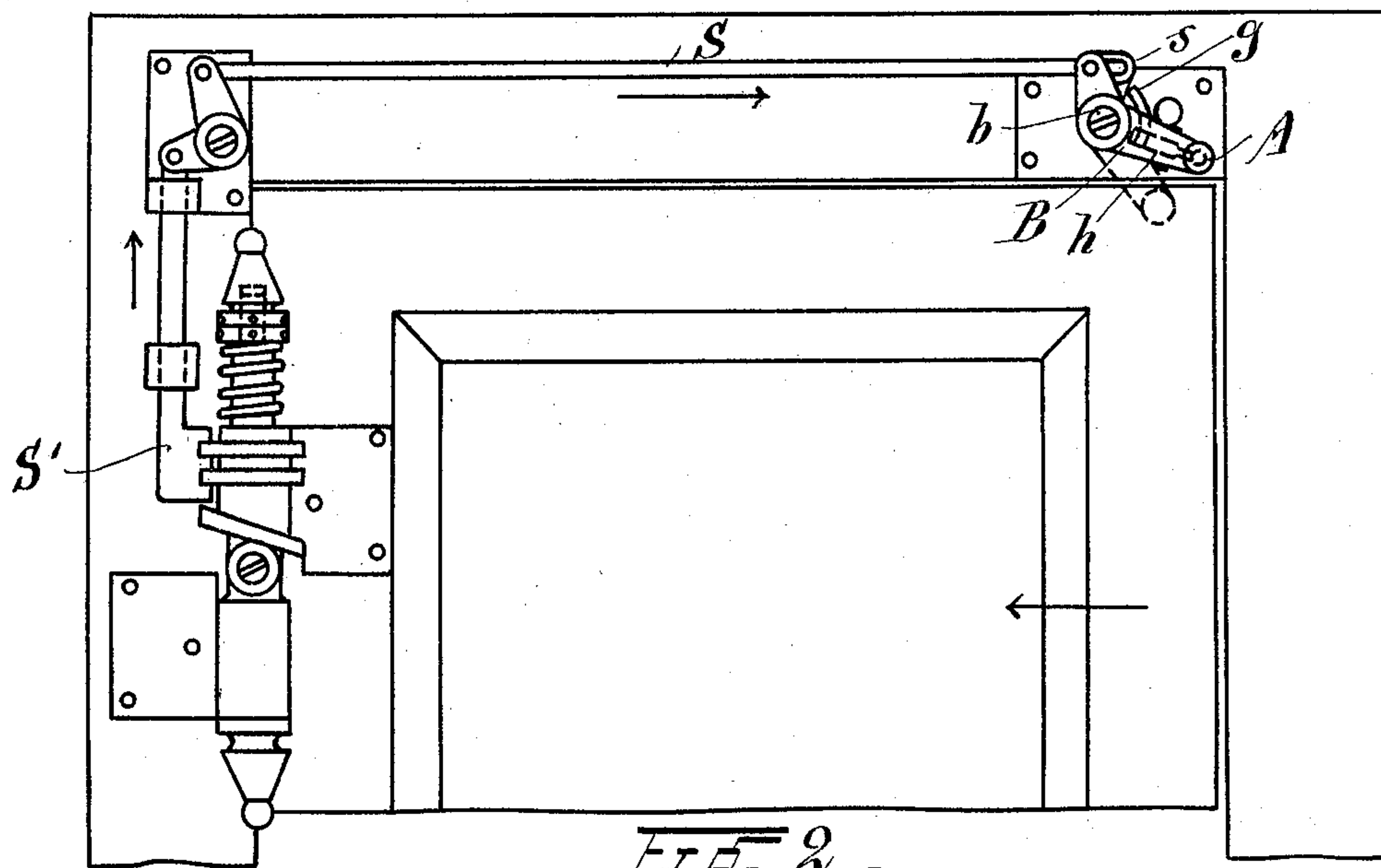
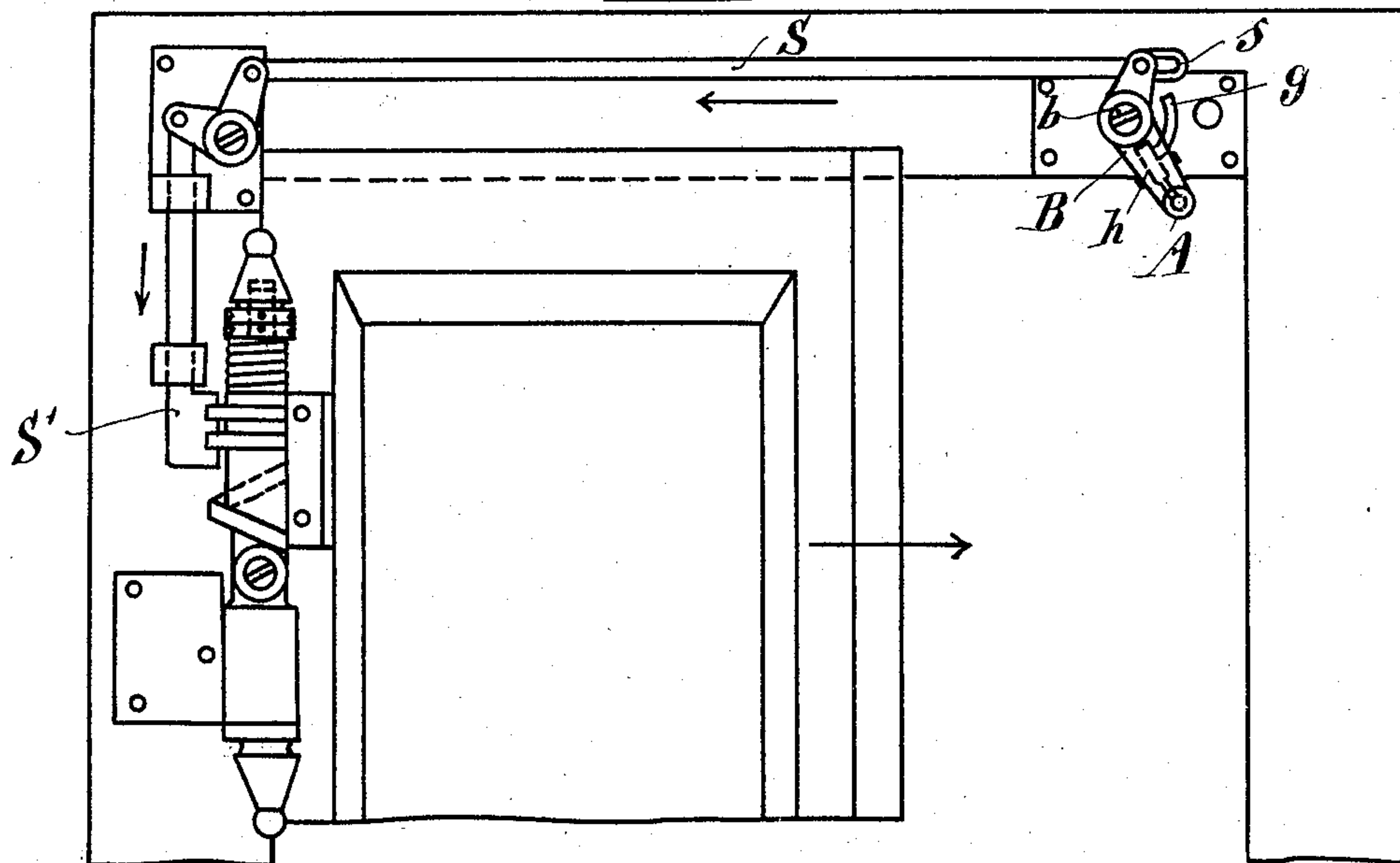


FIG. 2.



WITNESSES

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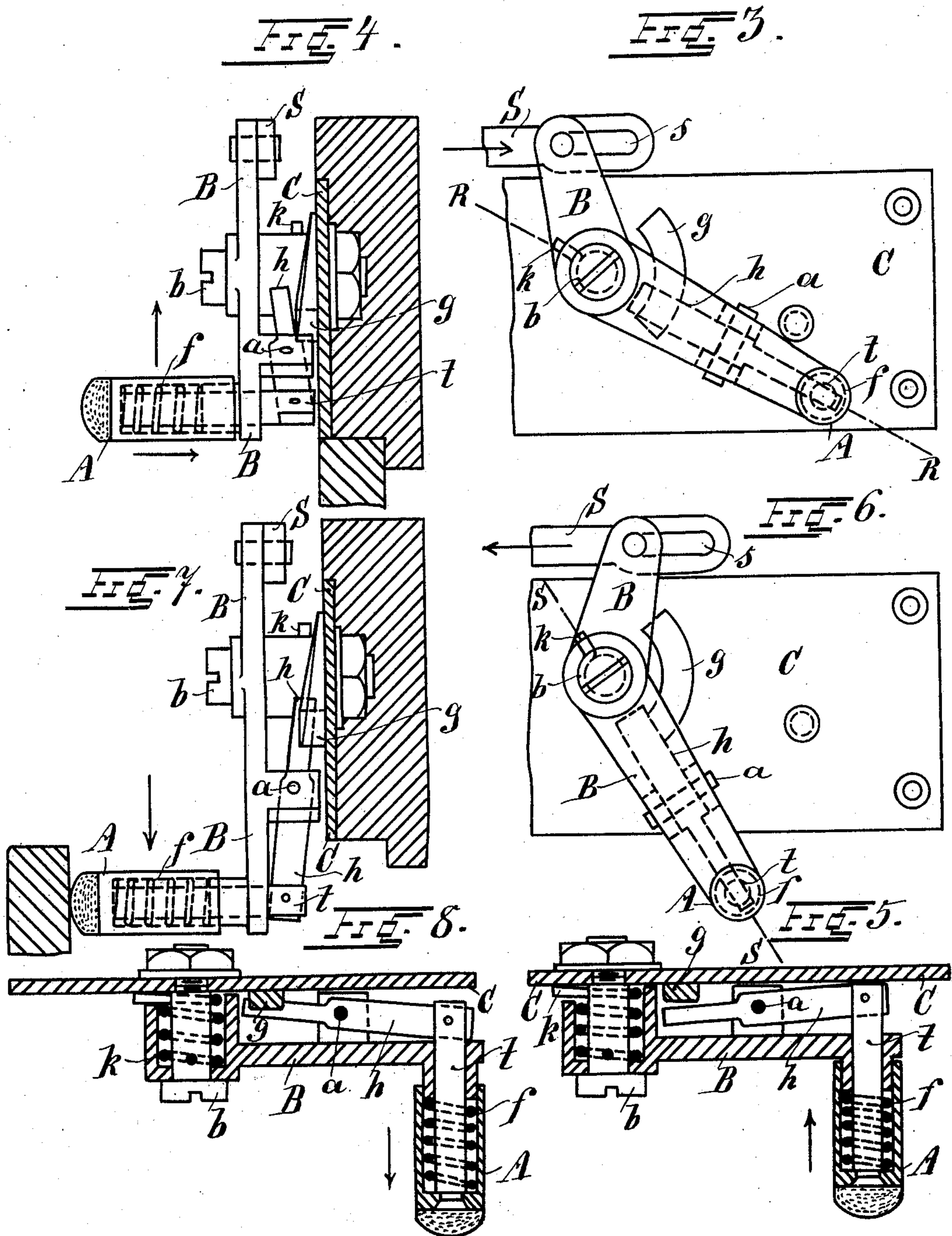
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UNITED STATES PATENT OFFICE.

JULIUS FÜRCHTEGOTT FÖRSTER, OF LEIPSIC, GERMANY, ASSIGNOR TO
EMIL OSCAR BEYER, OF SAME PLACE.

DOOR-BUFFER.

SPECIFICATION forming part of Letters Patent No. 603,785, dated May 10, 1898.

Application filed October 2, 1897. Serial No. 653,805. (No model.)

To all whom it may concern:

Be it known that I, JULIUS FÜRCHTEGOTT FÖRSTER, a subject of the King of Saxony, and a resident of Leipsic-Lindenau, in the Kingdom of Saxony, Germany, have invented certain new and useful Improvements in Door-Buffers, of which the following is a full, clear, and exact description.

The present invention consists of a buffer for preventing doors from slamming.

The buffer is constructed so that when the door is slammed or shut somewhat violently it will strike the said buffer, the concussion of the blow being utilized to immediately remove the buffer out of the path of the door, so that the latter may be gently closed.

In order to render the present specification more easily intelligible, reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout the several views.

Figure 1 is a front elevation of the device, showing the door closed; Fig. 2, a similar elevation with the door partly open; Fig. 3, a front elevation of the device detached and drawn to a larger scale, the parts being in the position they occupy when the door is closed. Fig. 4 is an end elevation of Fig. 3; Fig. 5, a section on line R R of Fig. 3; Fig. 6, a front elevation of the device with the parts in position when the door is open; Fig. 7, an end elevation of Fig. 6, and Fig. 8 a section on line S S of Fig. 6.

The buffer, of soft yielding material, is attached to the end of a sleeve A, arranged on a sliding pin *t*, mounted in the end of an angle or bell-crank lever B, pivoted at *b* to a base-plate C, attached to the door-frame in proximity to the door, so that the buffer will lie in the path of the door when the latter is closed, but may be raised out of the way when the lever B is turned on its pivot. The upper arm of the bell-crank lever B is provided with a pin which engages a slot *s* of a rod S, connecting it to a bell-crank lever, Fig. 1, the lower arm of which is coupled, as at S', to the hinge of the door and adapted to be raised when the door is opened. The manner in which the rod S is moved when the door is opened or closed is indifferent and forms no part of the present invention.

In the drawings a device is shown which tends to raise the door when it is opened by means of an inclined plate on the hinge which engages a stationary pin on the door-frame, and the vertical bar is coupled to the door-hinge, as shown at S', so that when the door is opened the bar will be raised and will operate the rod S in the direction of the arrow in Fig. 1. No claim is, however, made to this part of the apparatus. Behind the lever B and pivoted thereto is a second lever *h*, supported on a pivot *a*, with its end in proximity to an inclined surface or cam *g*, fixed to the base-plate C. The opposite end of the said lever *h* is pivoted to the buffer slide-bar *t*. A coiled spring *k* is provided in connection with the lever B, said spring normally serving to turn the said bell-crank lever B on its pivot in a direction to cause the buffer to lie out of the path of the door.

The device operates in the following manner: When the door is opened, the rod S acts to turn the lever B downwardly from the position shown at Fig. 1 to that shown at Fig. 2, and thus to bring the buffer into the path of the door. The lever is retained in this position against the action of its spring *k* by the catch-lever *h* engaging behind the shoulder of the cam *g*, as shown at Fig. 6. When the door is closed, the buffer receives the impetus and will be moved from the position shown at Fig. 8 to that shown at Fig. 5 against the action of the buffer-spring *f*. This movement of the buffer disengages the end of the catch-lever *h* from behind the shoulder of the cam *g*, so that the lever B is free to turn upwardly on its pivot under the action of its spring *k*. Thus as soon as the door has depressed the buffer the latter will be turned upwardly out of the path of the door, and the latter may be closed in the usual manner.

I claim as my invention—

The combination of a bell-crank lever pivotally mounted on the door-frame in proximity to the door, a slide-pin in said bell-crank-lever end, having mounted thereon a spring-pressed buffer, a catch-lever pivoted to the said bell-crank-lever arm and having one end connected to the slide-pin aforesaid, a cam mounted in proximity to the opposite end of

said catch-lever, means for lowering the buffer-arm of the bell-crank lever into the path of the door when the latter is opened and means for releasing the catch mechanism and raising the said arm immediately the door has struck the buffer substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JULIUS FÜRCHTEGOTT FÖRSTER.

Witnesses:

HERM. SACK,
RUDOLPH FRICKE.