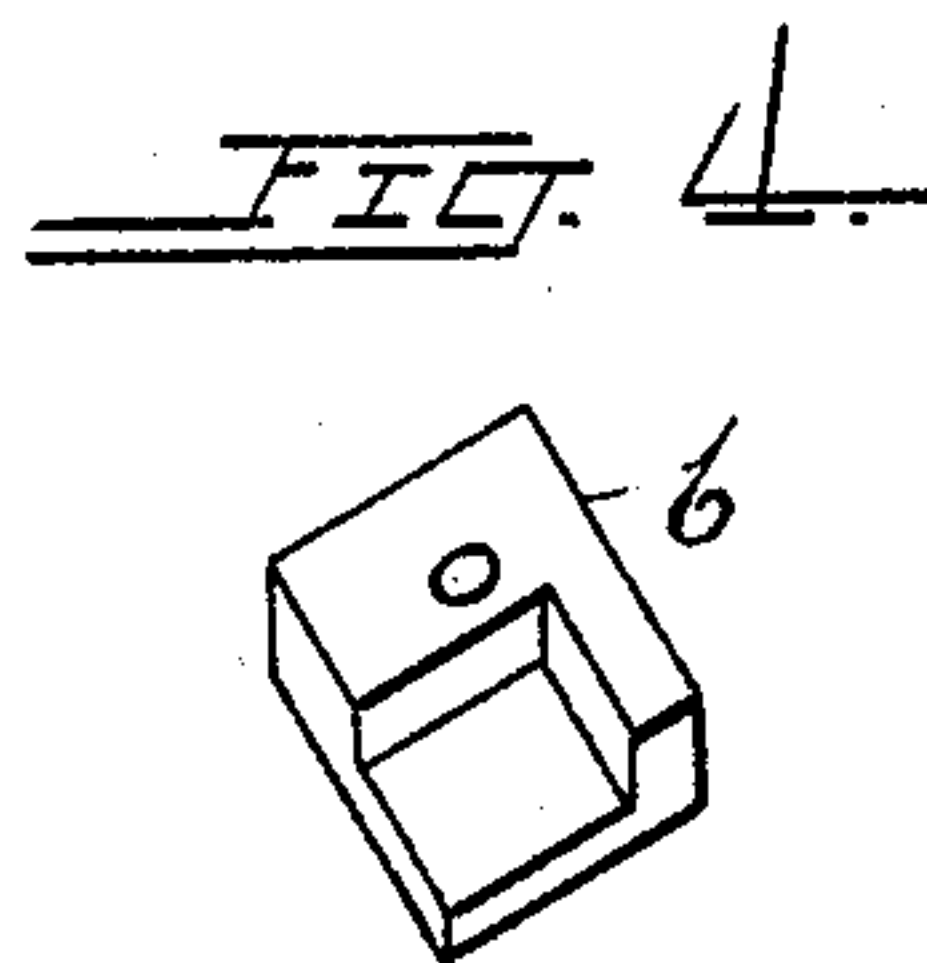
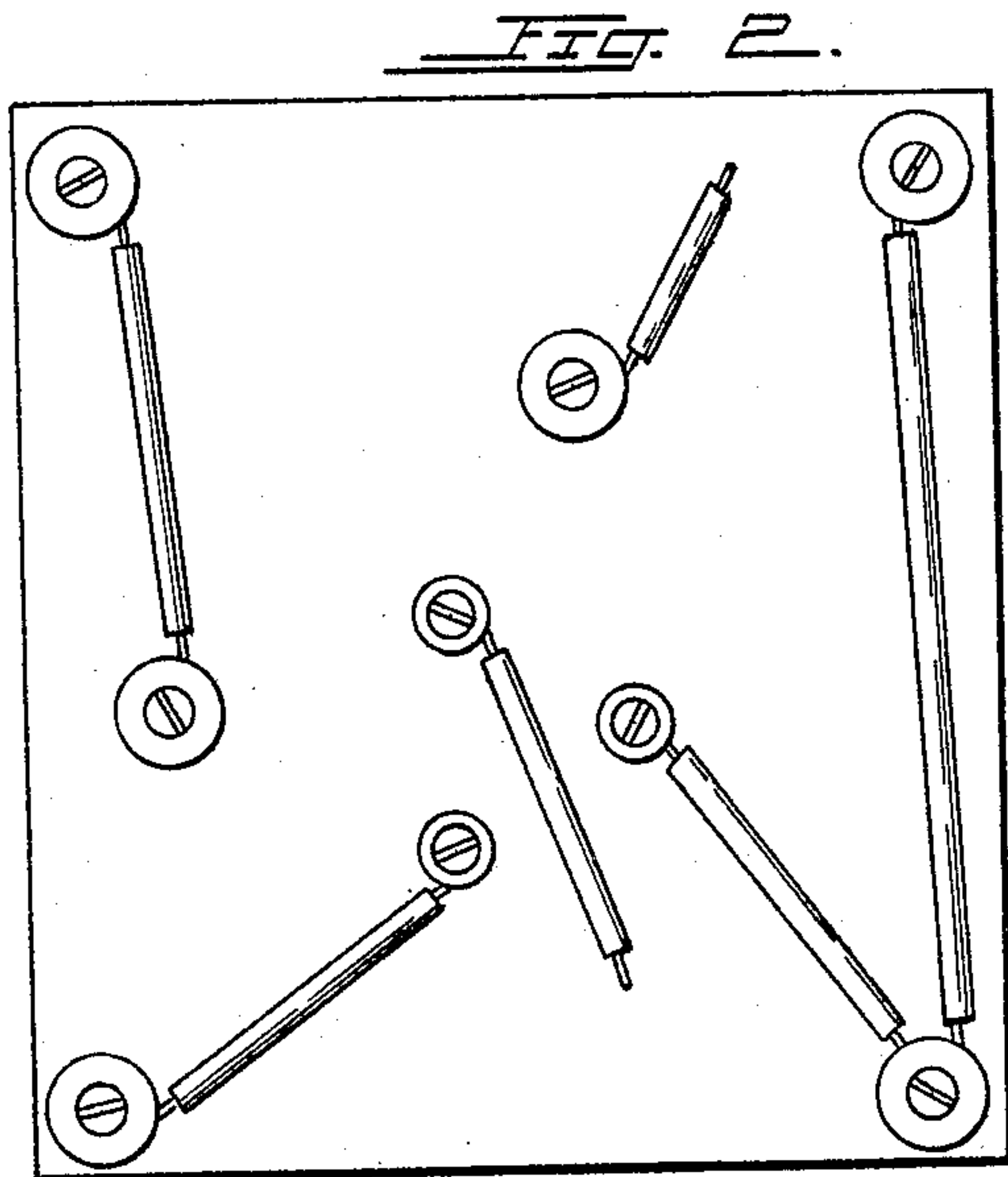
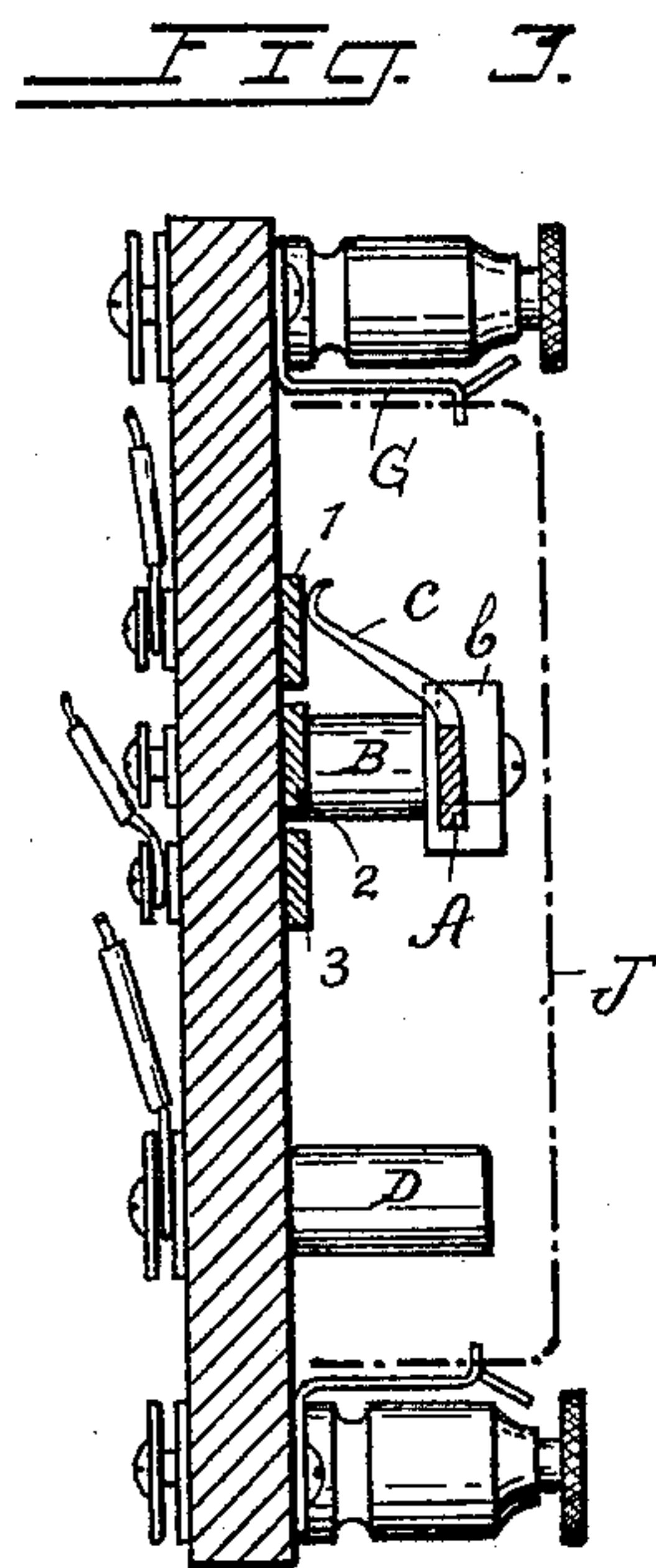
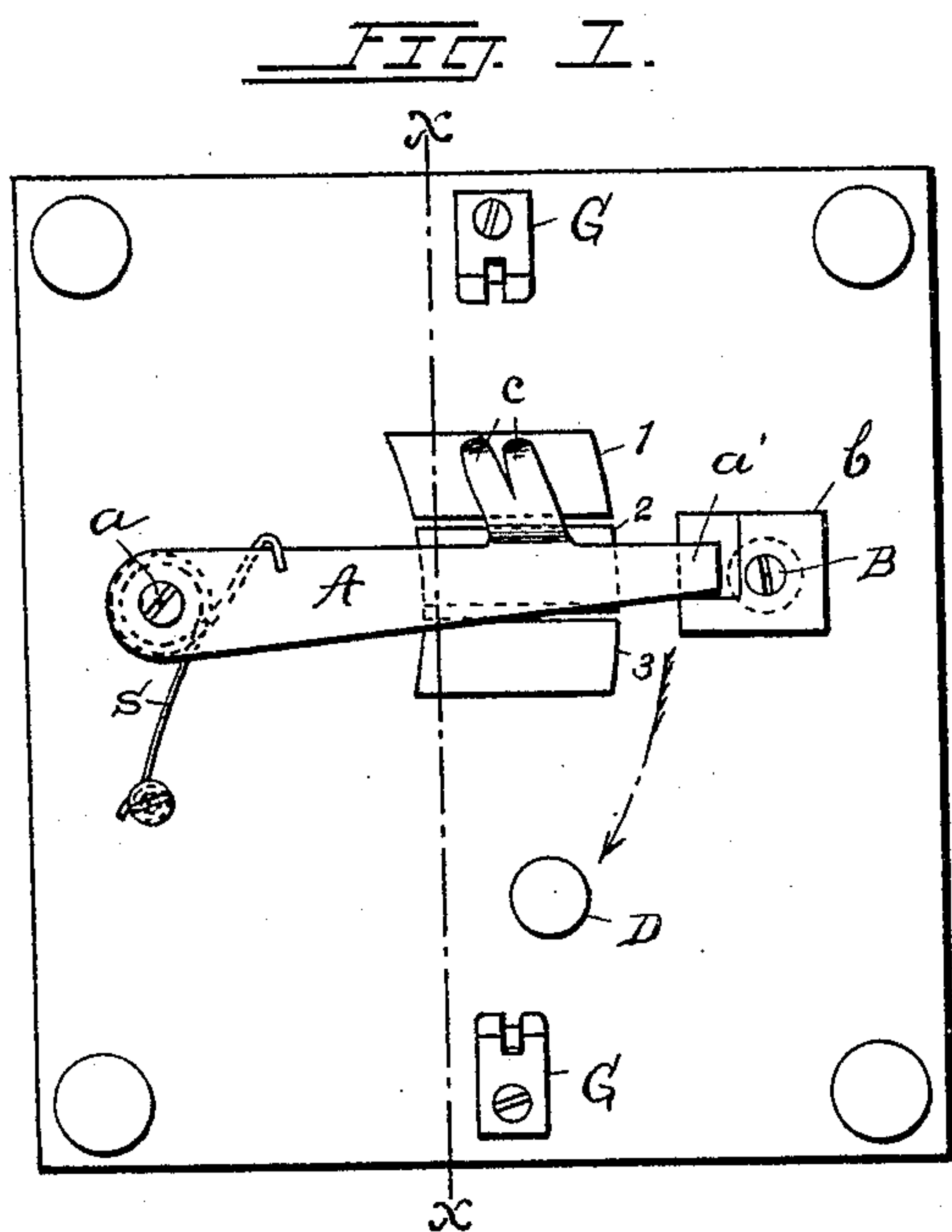


(No Model.)

L. EMDIN & J. A. DEWSON.  
THERMAL CIRCUIT CLOSER.

No. 606,004.

Patented June 21, 1898.



Lionel Emdin and  
John A. Dewson,  
Inventors

Witnesses  
Chas H. Muhlenberg.  
L. C. Anson

By Attorney *[Signature]*

# UNITED STATES PATENT OFFICE.

LIONEL EMDIN AND JOHN A. DEWSON, OF READING, PENNSYLVANIA.

## THERMAL CIRCUIT-CLOSER.

SPECIFICATION forming part of Letters Patent No. 606,004, dated June 21, 1898.

Application filed November 19, 1897. Serial No. 659,082. (No model.)

*To all whom it may concern:*

Be it known that we, LIONEL EMDIN and JOHN A. DEWSON, citizens of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Fire-Alarm Stations; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in automatic fire-alarm stations, and is particularly adapted for use on an auxiliary system.

The object of the invention is to produce a fire-alarm station that will be used as a supplemental alarm to the auxiliary alarm-box. This auxiliary box is operated by hand, and it has been found necessary to produce means for striking the alarm at night or at such times when there is no watchman on duty when a fire occurs.

The arrangement of our station is such that it will be operated automatically by either heat or flame and will not require the presence of a watchman, as it will be operated automatically by the melting of a fuse.

The invention is fully described in the following specification and clearly illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of one of our stations ready for action. Fig. 2 is a bottom view of the same, showing the wiring. Fig. 3 is a vertical cross-section taken on line *x x* of Fig. 1. Fig. 4 is a detail view of the fusible button.

The lever *A* is pivotally mounted on a post *a* and is held in tension by means of a coiled-wire spring *S*. The outer end *a'* of the lever engages a button *b*, of any suitable fusible material, which button is mounted on a post *B* and has the one corner cut away to allow the end of said lever to engage it. This lever is provided with legs or members *c*, which depend from the one side thereof, said legs or members having their lower ends curved and arranged to bear against the plates 1, 2, and 3.

A binding-post *D* is located in the path trav-

eled by the end *a'* of the lever when released and against which said lever stops.

Spring-catches *G* are arranged at either end of the base of the station, which serve to hold a wire screen *J* over the working parts to protect them from accidents.

The operation of our improved station is as follows: The lever as shown in Fig. 1 is ready for action. When the fusible button *b* is affected sufficiently by either heat or flame to release the end *a'* of the lever, the spring *S* will throw the lever in the direction of the arrow against the post *D*, and as the legs *c* pass over the circuit-plates 2 and 3 the circuits will be closed for the different alarms.

The construction of the button *b* is of little importance and may be of any desired form, but is made of a material that will be affected by either heat or flame, and is solidly mounted on the post *B*.

It will be seen that our construction is entirely automatic, positive in action, and comparatively cheap in construction. The usefulness and advantages thereof are evident.

Having thus fully described our present invention and its manner of operation, what we claim, and desire to secure by Letters Patent, is—

The herein-described automatic fire-alarm, comprising a base having a series of plates secured thereto and in circuit with the alarm system, a lever pivoted to said base and also in circuit with the alarm system, a spring designed to actuate said lever, a fusible block having a shoulder designed to engage and hold said lever in a normally raised position, said lever being provided with depending arms or members having lower curved ends designed to engage said plates, and means adapted to limit the movement of said lever under the action of said spring, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

LIONEL EMDIN.  
JOHN A. DEWSON.

Witnesses:

LOUIS ALLGAIER,  
ED. A. KELLY.