No. 613,877. Patented Nov. 8, 1898.

C. A. DEAL.

ALARM.

(Application filed July 29, 1897.)

(No Model.)

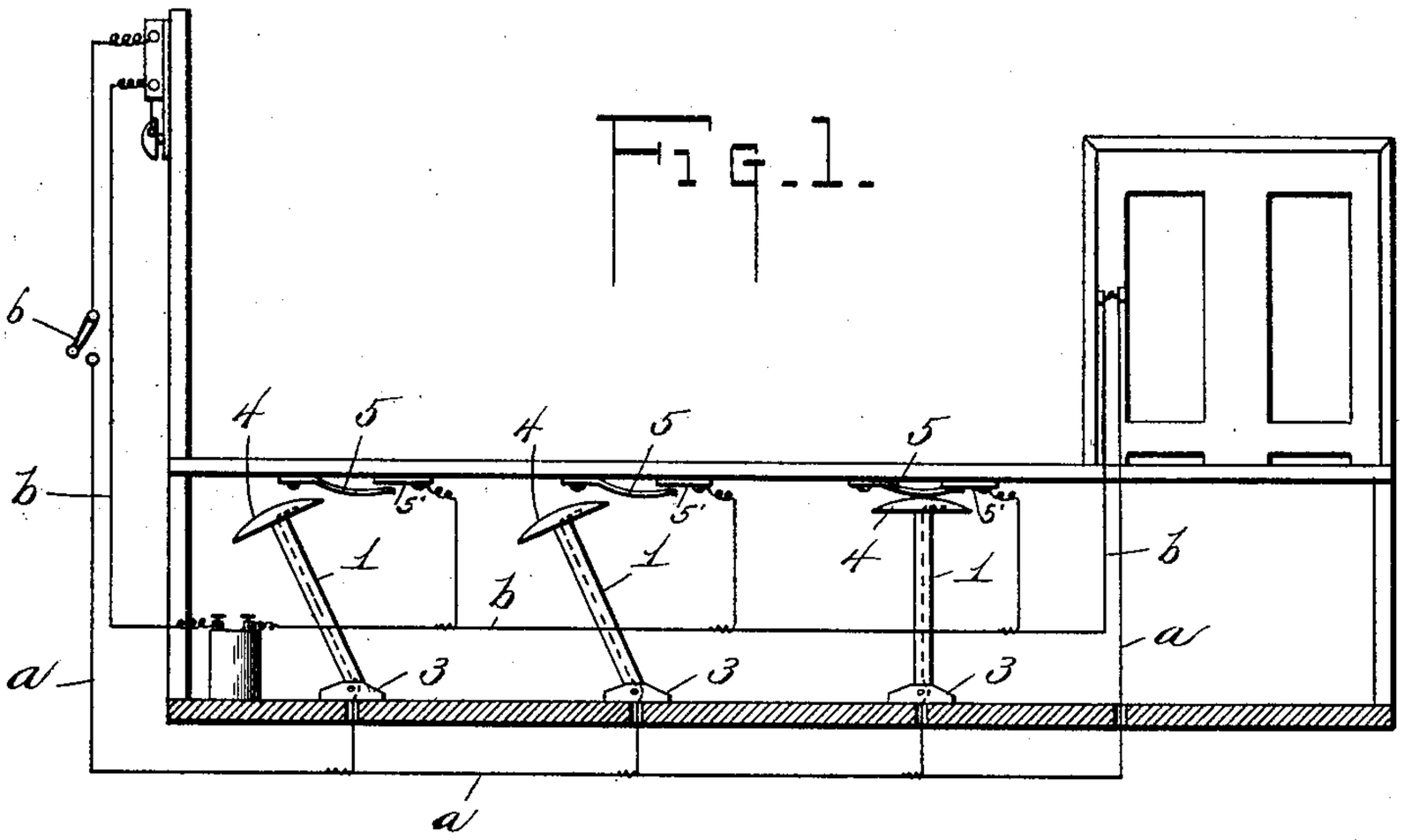


FIG. 1.

FIG. 2.

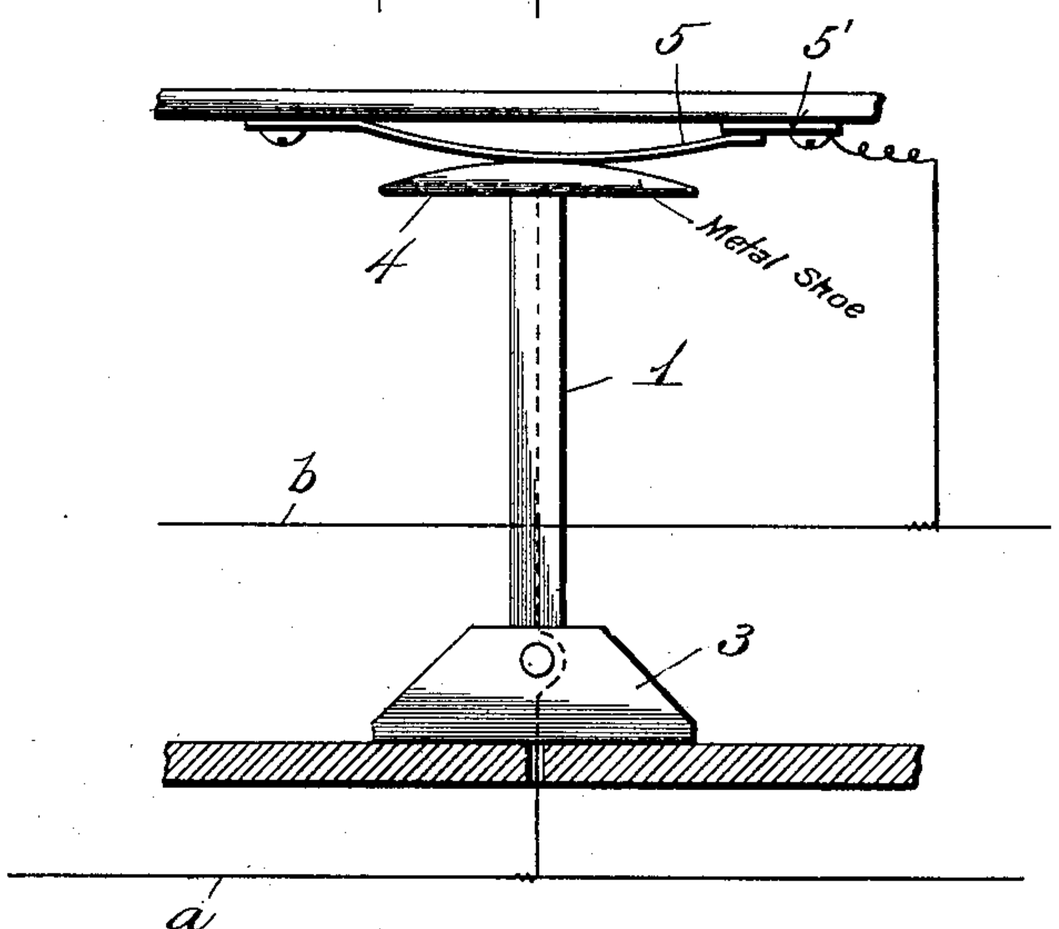
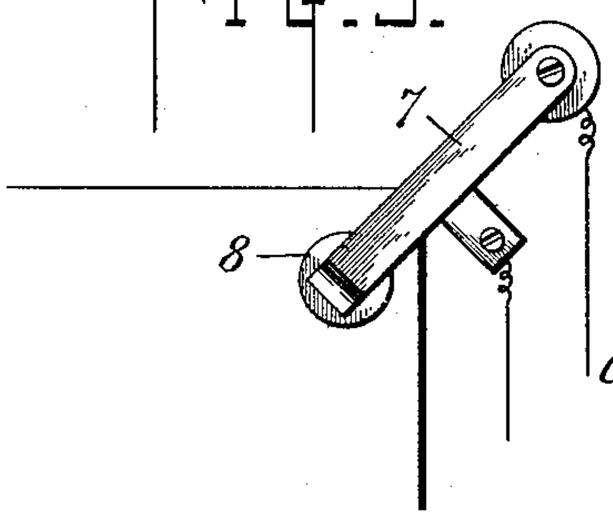


FIG. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES A. DEAL, OF CHICAGO, ILLINOIS.

ALARM.

SPECIFICATION forming part of Letters Patent No. 613,877, dated November 8, 1898.

Application filed July 29, 1897. Serial No. 646,402. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. DEAL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Alarms; and I 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 has reference to electric alarms or signaling devices especially adapted for banking-houses, stores, or other public places for the purpose of sounding an alarm should an attempt be made to burglarize the establishment.

The object of the invention is to provide an alarm of this nature in which the operation of controlling the circuit can be accomplished without the fact being apparent to the burglar, in order that when a demand is made to hold "hands up" the clerk or merchant can by a shifting movement of his knee cause an alarm to be sounded or ring a bell located either in another room or on the outside of the building to attract the attention of passers-by.

The following specification gives a description of the invention in detail, and what are considered to be the novel points of construction and arrangement are more particularly set forth in the appended claims.

In the drawings forming a part of this specification, Figure 1 is a diagrammatic view showing the circuit connections. Fig. 2 is an elevation showing the arrangement of the circuit-closer, and Fig. 3 is a view showing the arrangement for causing an alarm upon opening a door.

In carrying out my invention I arrange a series of vertical levers beneath the counter of an establishment or a single lever in case the device is located in a business office, the said levers being designated by the numeral 1 and are pivoted at their lower ends between ears 3 3, attached to the floor. The upper end of the lever is provided with a metal shoe 4, and in case the body of the device is made of wood a wire connected to said metal shoe is led down the lever and extends therefrom to a battery, the said wire being designated by the letter *a*. In connection with the lever a metal spring 5 is attached to the under side of the counter in the path of the shoe, the said spring being moved up into contact with a plate 5′, connected to a wire *b*, which is led therefrom to a battery, the alarm being connected to the other pole of the battery. In case a series of levers are arranged beneath the counter the wires from the bell and battery extend along the floor parallel with each other and have connected thereto branch wires, which form the electrical connection with the lever and contact-plate. It will be understood, of course, that the wires could be stretched below the floor and passed up through openings therein in making the proper connections or run along the inner side of the counter, a switch 6 being employed to throw the device out of operation when required.

By locating a set of levers below the counter, as hereinbefore described, the operation of closing the circuit in sounding an alarm can be accomplished by a shifting movement imparted by a knee of the operator which could not be noticed by any one on the other side of the counter, this arrangement being especially adapted to frustrate an attempt at burglary in cases where a burglar demands the cash at the point of a revolver or from any other threat. In this instance the bell could either be located in an adjoining room occupied by other parties or in front of the establishment to attract the attention of passers-by. A series of levers are arranged in order that the alarm can be sounded by the clerk without requiring him to be at a certain point.

In connection with this device I employ a supplemental arrangement to be used particularly in connection with banking-houses, whereby I arrange a circuit-closer operated upon opening of the door leading behind the inclosure, consisting of a pivoted lever 7, of spring metal, which is connected to one of the wires and is held normally out of contact with the other by means of a projection 8 on the door. By pivoting the lever the same can be switched out of operation when the cashier or clerk desires to pass out. In this case, as in the other, the bell is located at a desirable point to attract the attention of parties who may lend assistance.

Having thus described my invention, what

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

1. An electric-alarm system for banking-houses and other establishments, comprising a device for controlling the circuit, consisting of a pivoted lever concealed beneath a counter, a metal shoe carried by the free end of said lever, and connected to one of the wires of a battery, a metal spring in the path of said shoe, and a plate connected to the other wire, said spring being adapted by the movement of the shoe on the lever to be moved into contact with said plate for closing the circuit, substantially as set forth.

2. In an electric-alarm system for banking-houses and other establishments, the combination of a series of upright levers located below a counter and pivoted at their lower ends, shoes at the upper ends of said levers, battery-connected plates underneath the counter, and springs on the under side of the counter in the path of the shoes, said parts being connected to wires extending from a battery and bell, and adapted to close the circuit by the lateral movement of a lever, substantially as described.

3. An electric-alarm system for banking-houses and other establishments, comprising a series of levers arranged vertically below the counter, said levers being pivoted each at one end and carrying a shoe at the other, a metallic contact-spring located in the path of the shoe, and plates also underneath the counter, said plates and levers being connected to wires extending from a battery and bell, substantially as described.

4. In an electric-alarm system for banking-houses and other establishments, the combination of an upright lever arranged below the counter, said lever being pivoted at one end and carrying a shoe at the other, a battery-connected plate also underneath the counter, a metallic contact-spring located in the path of the shoe and wires extending from the lever and plate to an electric battery and bell; together with a spring-metal lever pivoted to the door casing or frame, a plate located adjoining the lever, and a projection on the door holding said lever normally out of contact with the plate and wires connecting the lever and plate to a bell and battery, substantially as shown and for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES A. DEAL.

Witnesses:
E. E. NOYES,
W. A. ROOT.