C. L. KULP.

ELECTRIC ALARM FOR INCUBATORS.

APPLICATION FILED MAR. 3, 1909.

936,914.

Patented Oct. 12, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

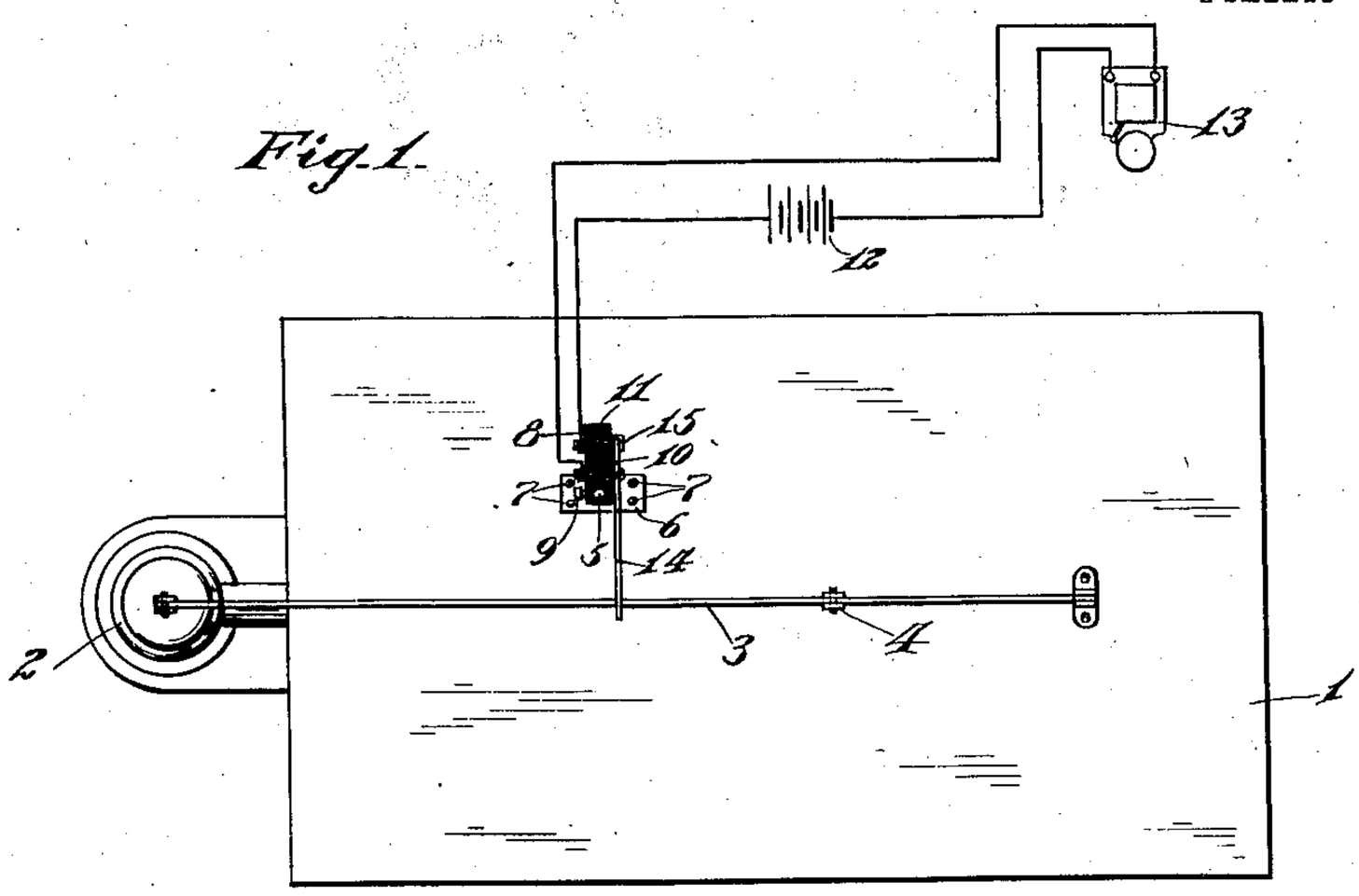
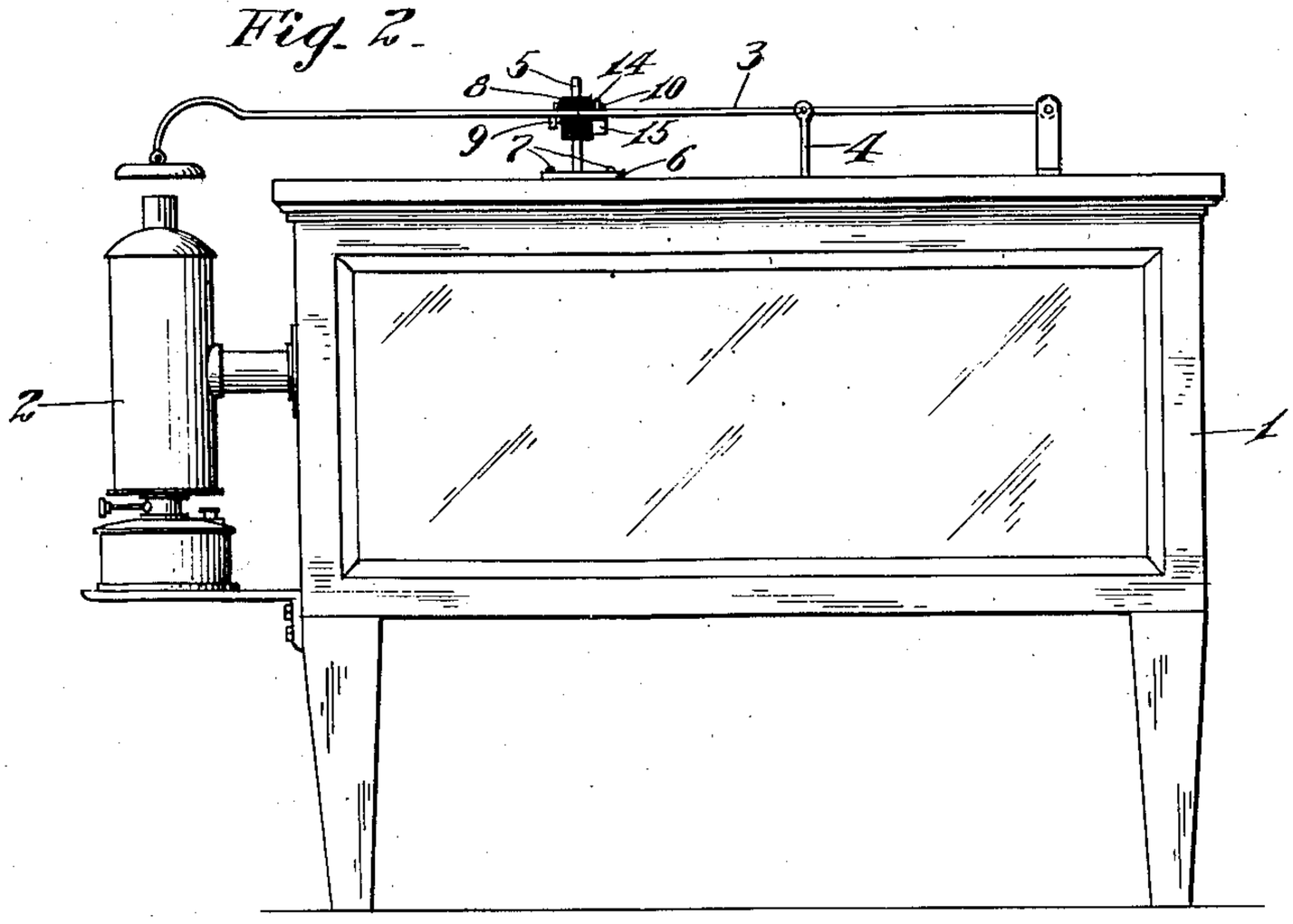


Fig. 2.



Witnesses

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Fig. 3.

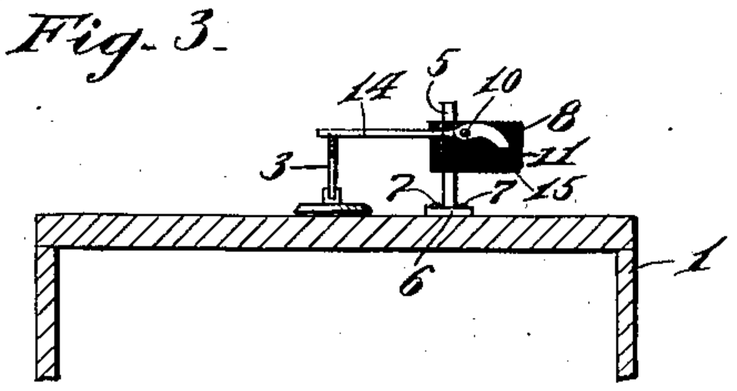


Fig. 4.

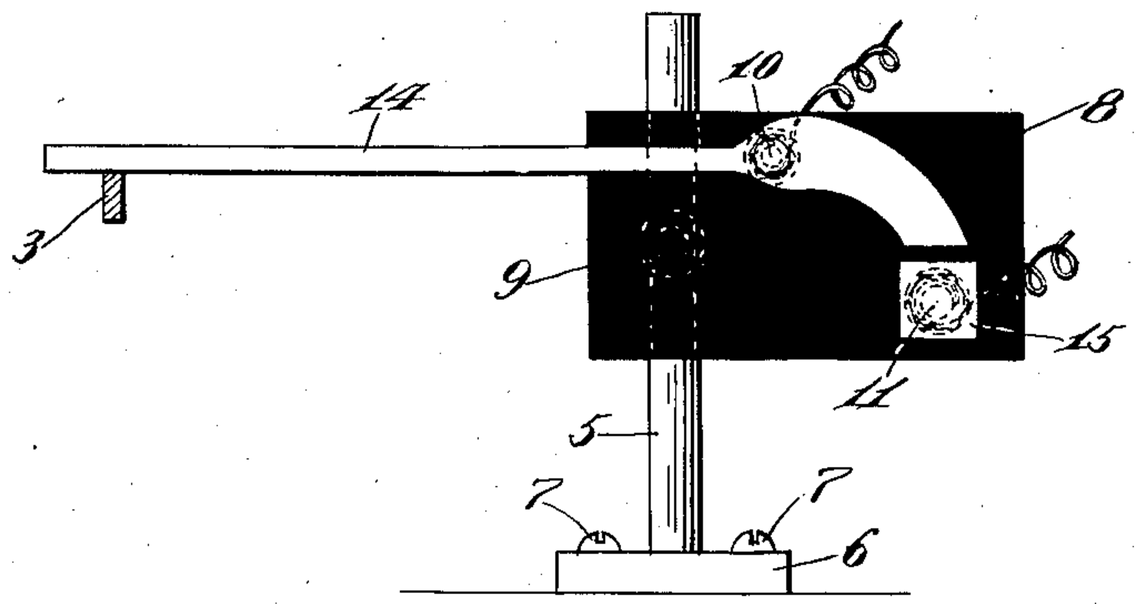
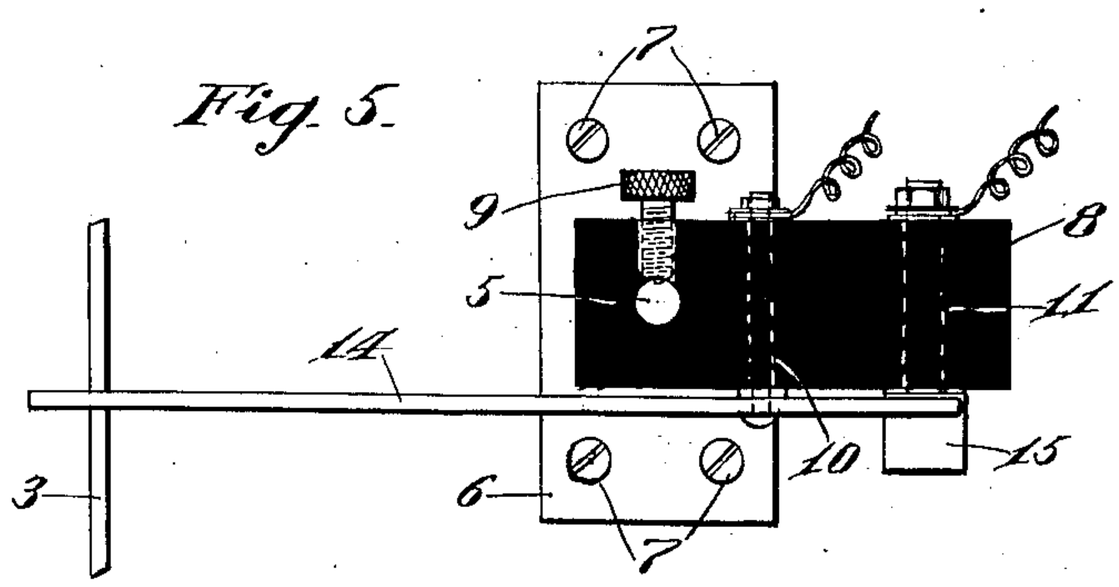


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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ELECTRIC ALARM FOR INCUBATORS.

936,914. Specification of Letters Patent. Patented Oct. 12, 1909.

Application filed March 3, 1909. Serial No. 481,132.

To all whom it may concern:

Be it known that I, CHARLES L. KULP, a citizen of the United States, residing at Sunbury, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Electric Alarms for Incubators, of which the following is a specification.

My invention relates to an improved electric alarm for incubators, which may be readily attached to any of the well known forms of incubators, and the damper adjusting lever will operate to close an electric circuit and sound an alarm, when the lever is elevated by any suitable thermostatic controlling means within the incubator, when the temperature of the latter reaches the danger point, thus notifying the owner and preventing possibility of destroying the hatch by overheating.

A further object is to provide improved circuit closing means, which will be extremely simple in construction, cheap to manufacture, easy to apply to any ordinary incubator, and which will most effectually operate to close an electric circuit and sound an alarm, when the damper controlling lever moves upward to a predetermined height.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations, and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1, is a top plan view illustrating my improvements. Fig. 2, is a view in side elevation. Fig. 3, is a fragmentary view in cross section. Fig. 4, is an enlarged view in side elevation of my improved circuit closing means, and Fig. 5, is a top plan view of Fig. 4.

1 represents an ordinary incubator, 2 the burner or heater for the same, and 3 the damper operating lever connected by a rod 4 with any desired form of thermostat not shown, so that the lever will be moved by the thermostat in accordance with the temperature within the incubator.

My improved attachment is secured on top of the incubator, and comprises a vertical standard 5, having a base 6 secured to the top of the incubator by means of screws 7.

8 represents a block of non-conducting material, having an opening to receive standard 5, and a set screw 9 to adjust the block 8 on the standard in accordance with the height of the lever 3. In this block 8, two binding posts 10 and 11 respectively are mounted, and project through the block and are connected in an electric circuit with a battery 12 and bell 13 as shown in Fig. 1. These binding posts 10 and 11 extend through the block, and a trip arm 14 is pivotally mounted on the binding post 10, and is normally out of engagement with a contact block 15 on the other binding post 11. The long end of the trip arm 14 extends across and is supported upon the lever 3, so that the upward movement of lever 3 will move the short end of the trip arm 14 toward the contact block 15, and when the lever moves high enough, the trip arm will engage contact 15 and close the electric circuit and sound an alarm.

The trip arm is preferably flattened at its shorter end as shown, but I do not limit myself to the exact shape of this arm, as it may be made in various ways.

It will thus be observed that my improvements can be placed upon any ordinary incubator, and is not limited to the particular construction of incubator shown. Should the damper operating lever be higher or lower than that illustrated, the block 8 can be adjusted on the standard 5, so as to properly position the trip arm 14 to sound the alarm when the temperature reaches a danger point.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the claims.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the character described, the combination with a standard adapted to be secured upon an incubator, a block of insulating material, means for adjustably securing said block on said standard, binding posts in said block spaced apart, a battery and an alarm in electric circuit with said binding posts, a contact block on one binding post, a contact trip arm pivoted between

its ends on the other post, having one end adapted to be moved into contact with said contact block, and a damper operating lever for an incubator located below the other end of said trip arm, and adapted when elevated to move said trip arm into contact with said contact block and close the electric circuit between said binding posts, battery and alarm.

2. In a device of the character described, the combination with a standard, a base on said standard adapted to be secured upon the top of an incubator, a block of insulating material having an opening to receive said standard, a set screw in said block engaging the standard, and adapted to secure the block at various vertical adjustments, two binding posts extending through the block, a battery and an alarm in electric circuit with said binding posts, a contact block on one post, a trip arm pivoted between its ends on the other post, and having one end movable in the path of said contact block, a vertically movable damper operating lever, and the other end of said trip arm positioned above said lever, so that when said lever moves upwardly the trip arm will be moved, so that it will close the electric circuit between the binding posts and sound an alarm.

3. In combination with an incubator, a vertically movable damper controlling lever on said incubator, a standard secured on the top of the incubator, a vertically adjustable block of insulating material on said standard, a contact block, a trip arm pivotally supported on said first mentioned block, and a battery and alarm in an electric circuit with said trip arm and contact block, and said trip arm located in the path of movement of said damper controlling lever and said contact block located in the path of movement of one end of the trip arm, so that when the latter moves in one direction, it will move the trip arm into engagement with the contact block and close the electric circuit to sound an alarm.

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

CHARLES L. KULP.

Witnesses:
GEO. W. DEIBLER,
JOHN ZIMMERMAN.