

No. 782,387.

PATENTED FEB. 14, 1905.

W. H. GERHARD,
ELECTRIC TIME SWITCH.
APPLICATION FILED SEPT. 15, 1904.

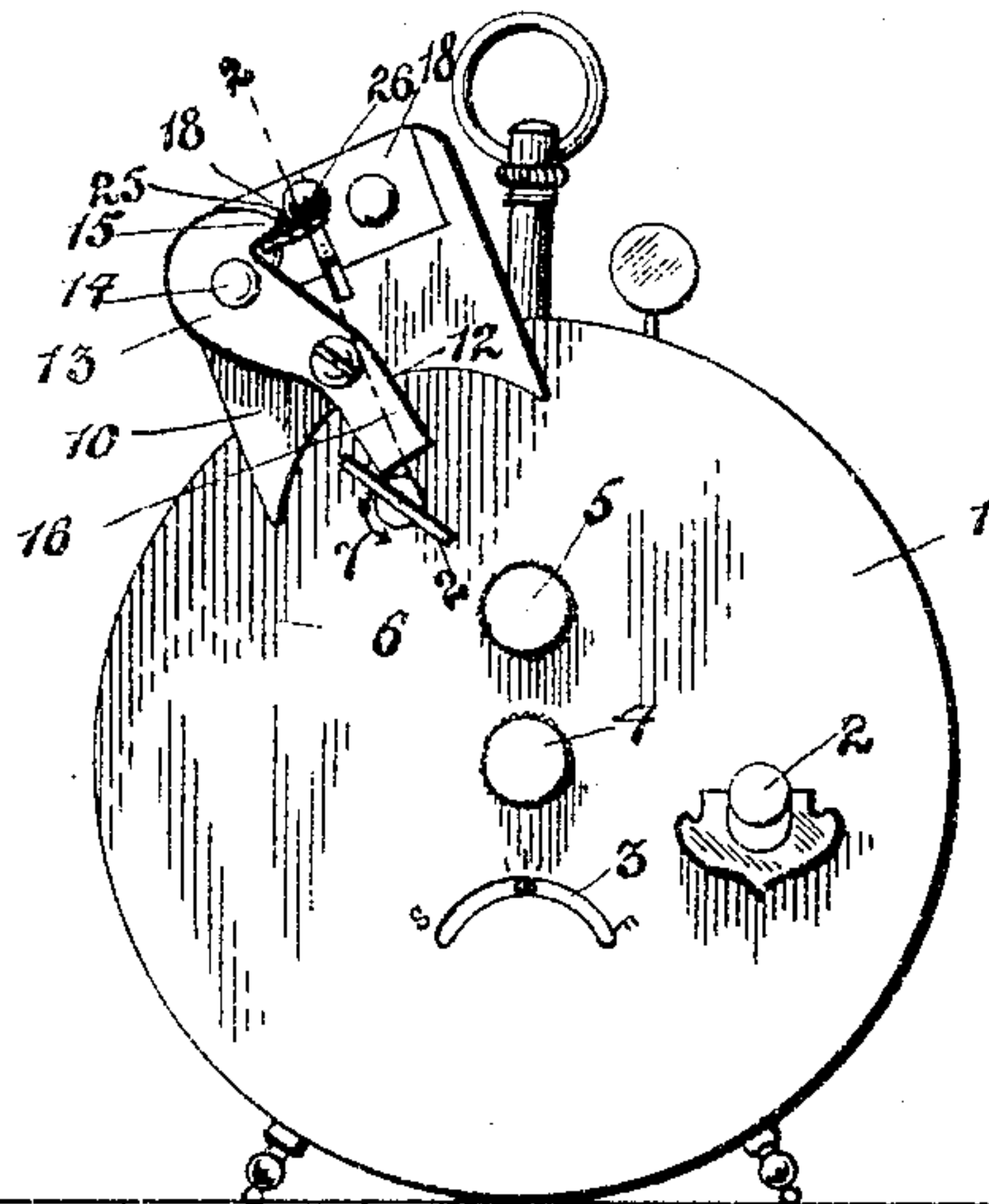


FIG. 1.

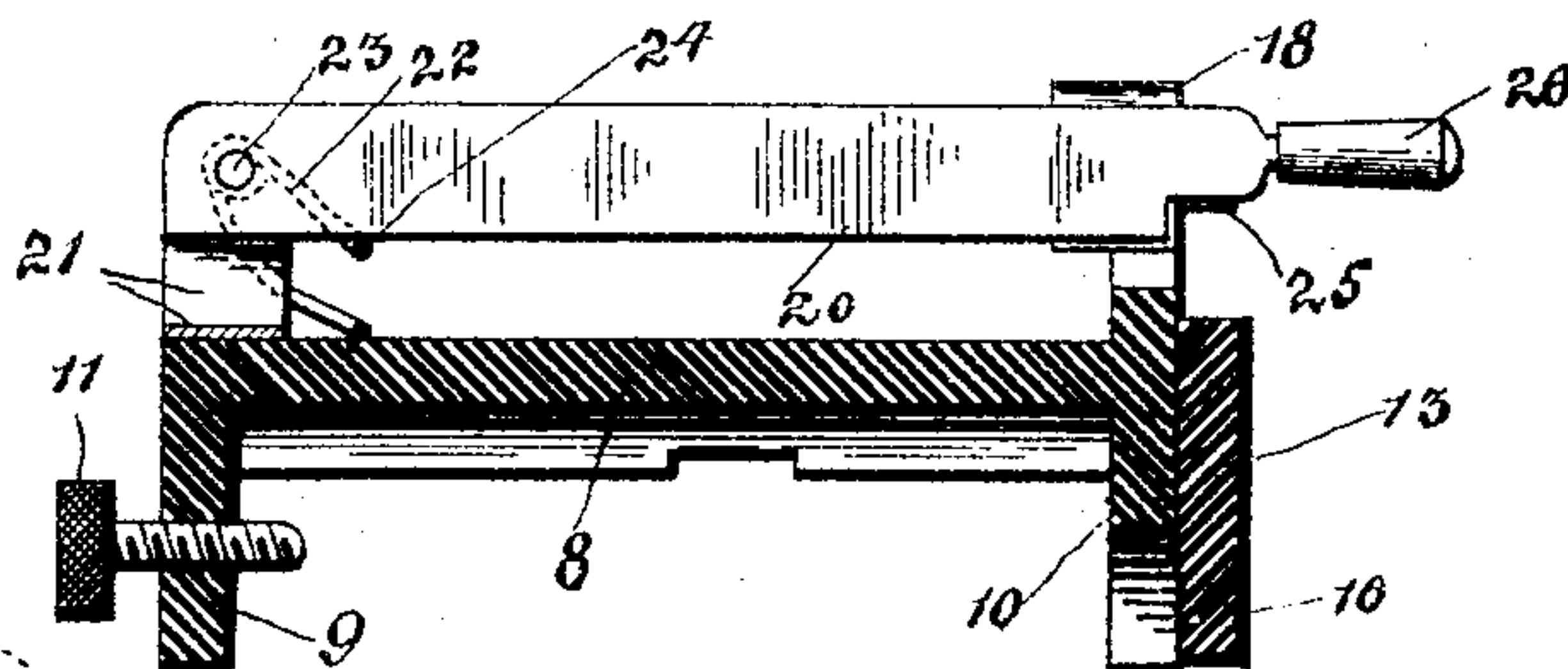


FIG. 2.

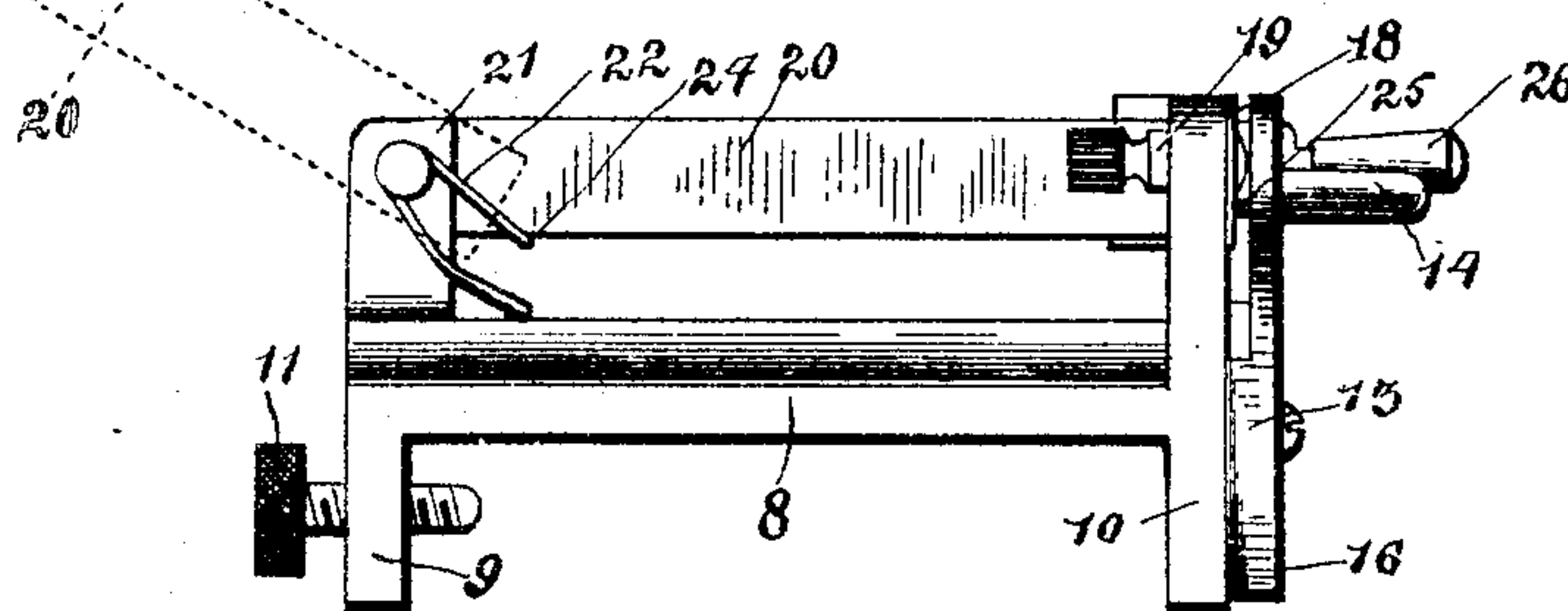


FIG. 3.

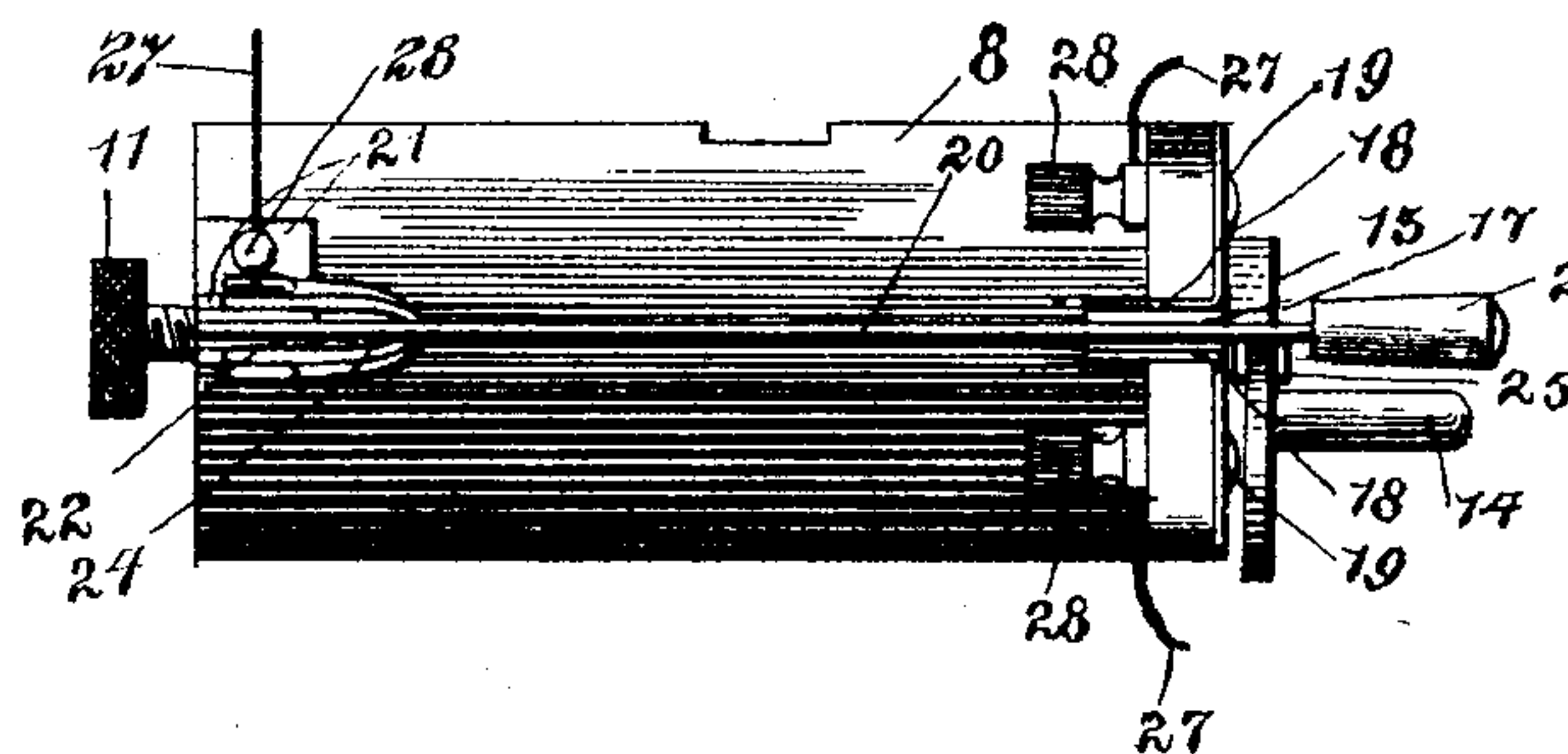


FIG. 4.

Witnesses
Forrest G. Smith,
L. O. Helton

Inventor
Wm. H. Gerhard

by *A. B. Wilson*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. GERHARD, OF AUSTIN, TEXAS.

ELECTRIC TIME-SWITCH.

SPECIFICATION forming part of Letters Patent No. 782,387, dated February 14, 1905.

Application filed September 15, 1904. Serial No. 224,559.

To all whom it may concern:

Be it known that I, WILLIAM H. GERHARD, a citizen of the United States, residing at Austin, in the county of Travis and State of Texas, have invented certain new and useful Improvements in Electrical Switches; and I do 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.

My invention relates to improvements in electric switches or light-extinguishers, and more particularly to an attachment for alarm-clocks by means of which the switch-bar may be operated by the rotation of the alarm-winding key of said clock when the alarm is let off to cut out or extinguish an electric light or lights or to effect other results.

The object of my invention is to improve devices of this character and to provide a switch which will be simple in construction, durable in use, positive in operation, and comparatively inexpensive to manufacture.

With these and other objects in view the invention consists in certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a rear elevation of an ordinary alarm-clock with my attachment applied thereto. Fig. 2 is a detail sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a side elevation of the attachment removed from the clock and showing in dotted lines the position to which the switch-bar is swung when released by the alarm-winding key of the clock. Fig. 4 is a top plan view of the attachment or switch.

Referring to the drawings for a more particular description of my invention, the numeral 1 designates an alarm-clock of the well-known cylindrical type, having upon its rear face the usual mainspring-winding key 2, regulator 3, and set-knob 4, alarm-set knob 5, and the alarm-winding key 6. The latter when the alarm mechanism is released rotates in the opposite direction to that indicated by the arrow 7 in Fig. 1, as is common in devices of this character.

My improved switch or attachment comprises a clamp made preferably of vulcanized rubber or other suitable insulating material and comprising a curved body portion 8, adapted to rest upon the clock-frame and provided with two downwardly-extending lugs 9 10. A thumb-screw 11 extends through the lug 9 and serves to secure the switch in place on the clock. The lug 10 has a curved lower edge 12 to accommodate the alarm-winding key 6 of the clock. Pivoted upon said lug 10 is a hook or catch 13, provided with a suitable handle 14 and a hook portion 15, the lower or free end 16 of said catch extending beyond the lug 10 to a position within the path of the alarm-winding key 6. The upper extended end of the lug 10 is slotted, as at 17, the inner edges of said slot being faced with copper plates or other contacts 18, secured in place by screws 19.

The switch-bar 20 is pivoted at one end by the conducting-lugs 21, suitably secured to the portion 8 of the clamp. A terminal 27 is secured to a binding-post 28, rising from one of the lugs 21, and said terminal may be used with either of the terminals at the opposite end of the switch. A spring 22 is connected to the pintle 23 and forms a loop 24, which bears under the bottom edge of the switch-bar 20 to throw said bar into the dotted-line position shown in Fig. 3 of the drawings when said bar is released from the catch 13. At the outer or free end of the switch-bar 20 a lug 25 extends laterally from said bar into the path of the hook portion 15 of the catch 13, and a suitable handle 26 may be provided on said switch-bar for operating the same.

In attaching my device to a clock its alarm-bell is preferably removed and the body portion of the clamp placed across the top of the clock and secured thereto, as shown. The terminals of electrical conductors 27 are secured to binding-posts 28, the said conductors being connected to an electric-lighting circuit or any other electrical circuit.

The operation of my invention may be described as follows: The clock may be set so that its alarm mechanism will be let off at any desired time, and when said alarm mech-

anism operates the alarm-winding key 6 comes in contact with the depending end of the catch 13 and moves it to one side, thus releasing the switch-bar 20 from its engagement with the hook portion 15, and thus breaking the circuit and cutting out the lights or performing any other similar service.

It will be understood, of course, that my switch may be used for cutting in as well as cutting out lights—that is to say, the switch may be operated to either make or break an electrical circuit, and thereby control a mechanism of any description.

From the foregoing, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

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

1. An electric switch comprising a clamp adapted to be secured at the top of an alarm-

clock, having an alarm-winding key, a switch-bar pivoted at one end to one end of said clamp with its opposite end normally resting between contact-points, in combination with a pivoted catch having a hook for engaging a lug upon the switch-bar and its opposite end projecting into the path of the alarm-winding key of the clock, substantially as described.

2. A time-controlled attachment for alarm-clocks comprising a detachable clamp provided with lugs, a thumb-screw for securing said clamp in place upon the top of the clock, electric contact-points upon the clamp, a switch-bar pivoted at one of its ends upon the clamp, a spring for disconnecting said switch-bar from the contact-points and a pivoted hooked catch engaging a lug on the bar and having an end projecting into the path of the alarm-winding key of the clock, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WM. H. GERHARD.

Witnesses:

A. H. CASWELL, Jr.,

J. G. MELLEHENNER.