

B. DUBINSKI.
ELECTRIC PROGRAM CLOCK.

(Application filed Apr. 1, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. I.

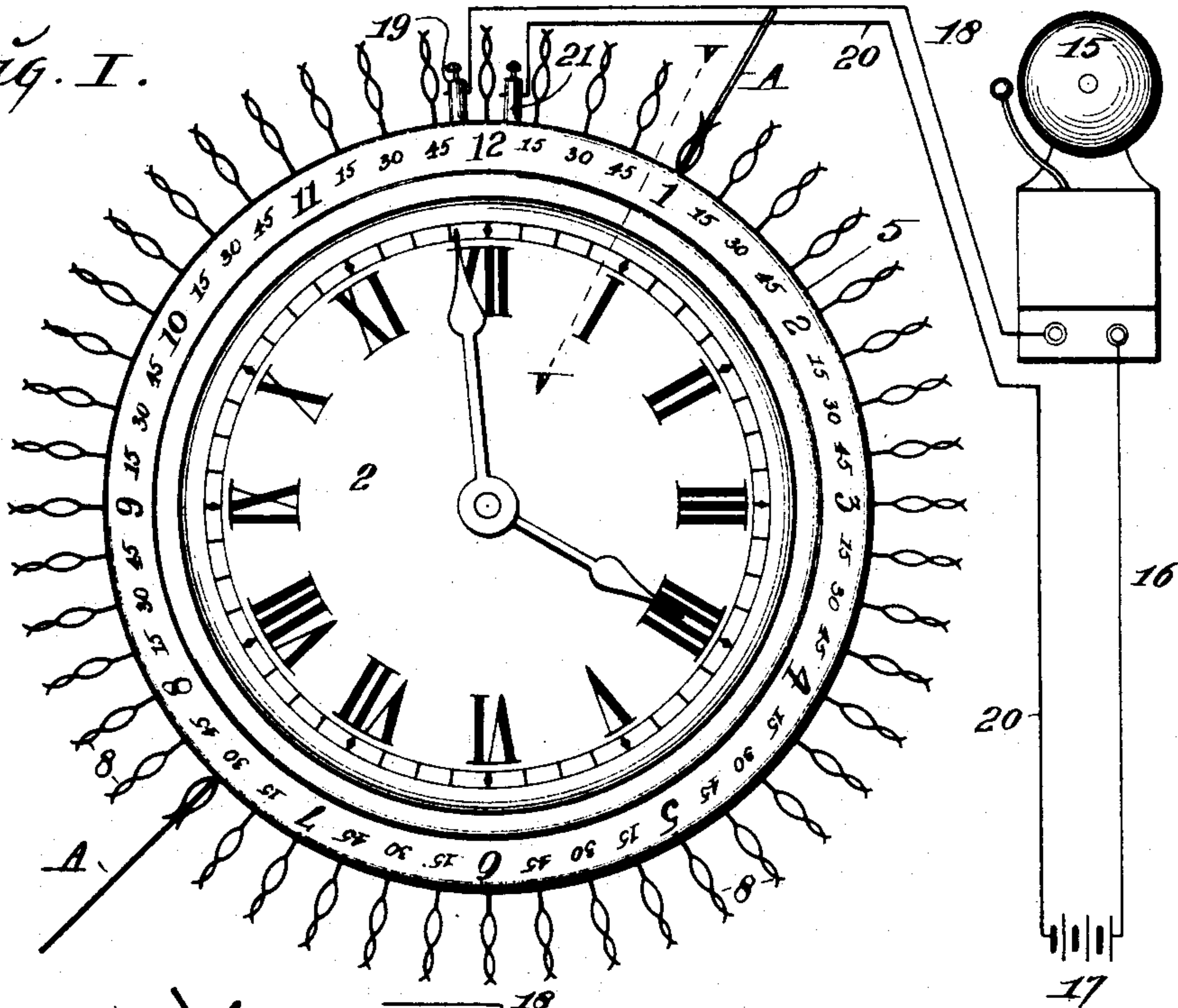
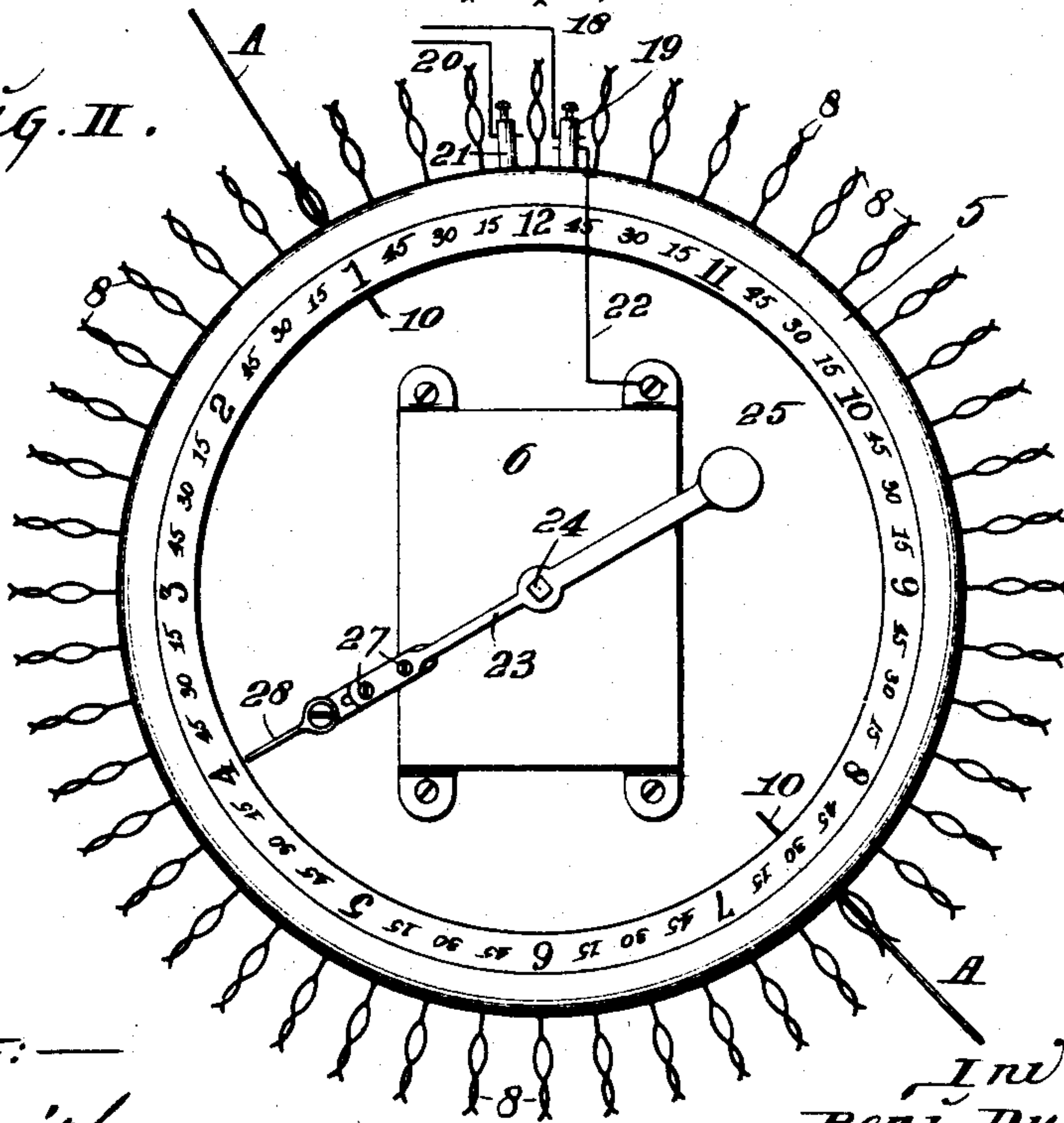


Fig. II.



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Fig. III

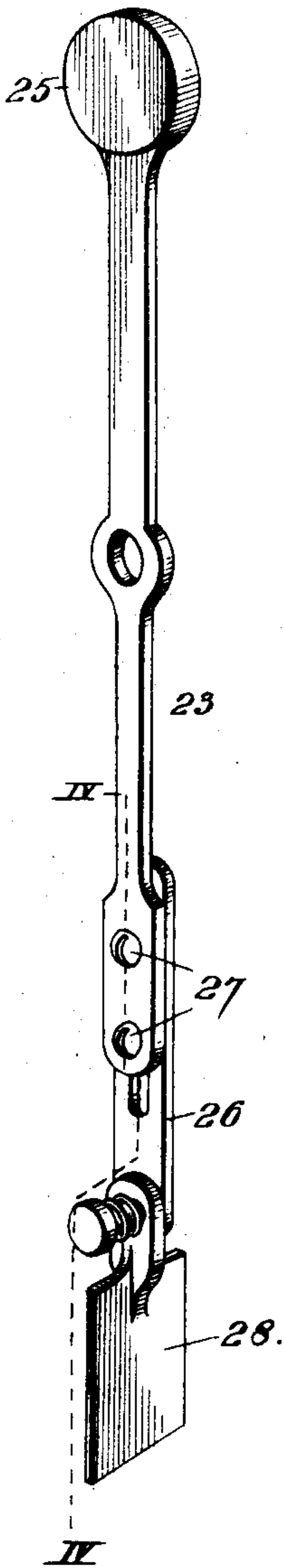


Fig. V.

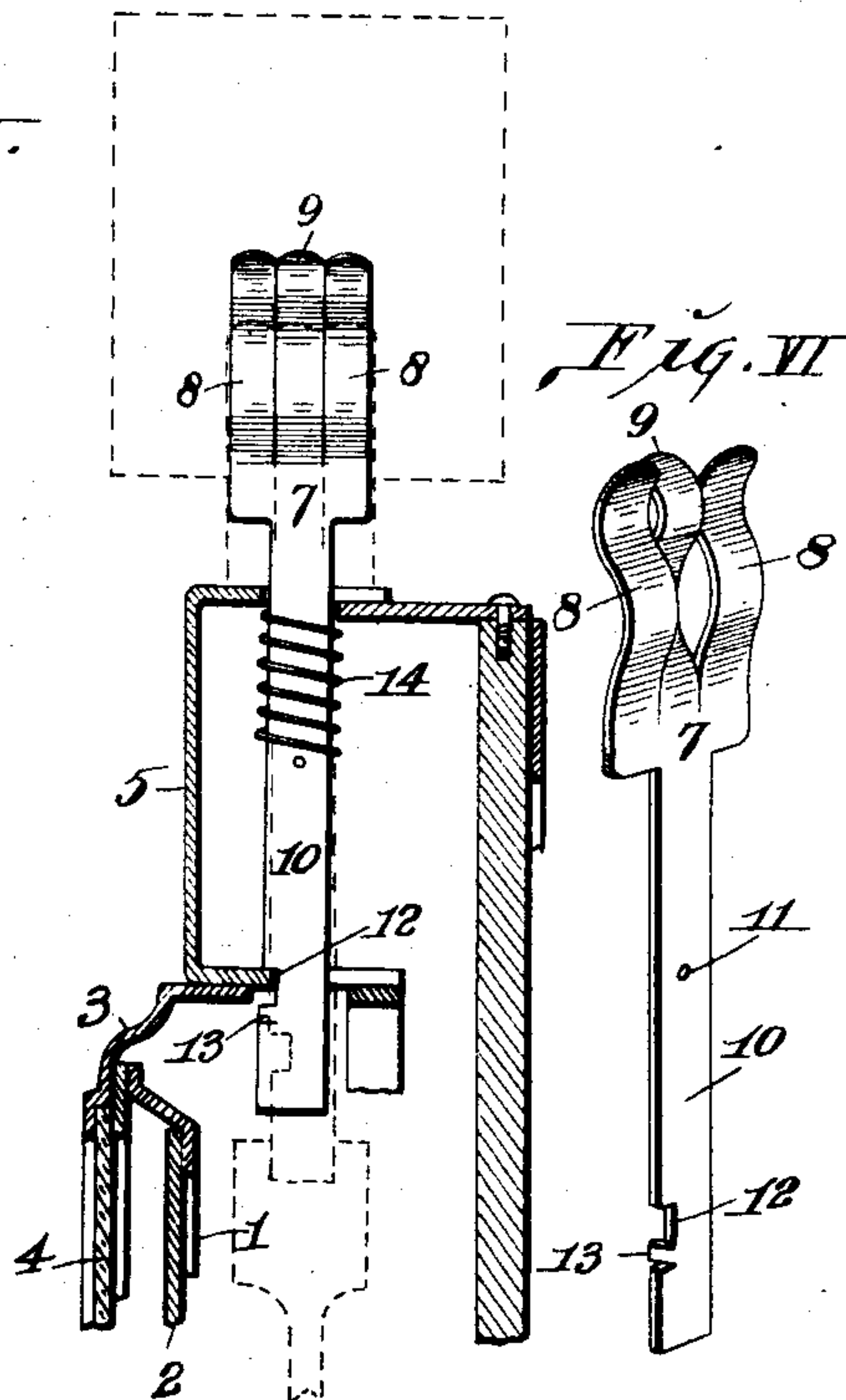


Fig. VI

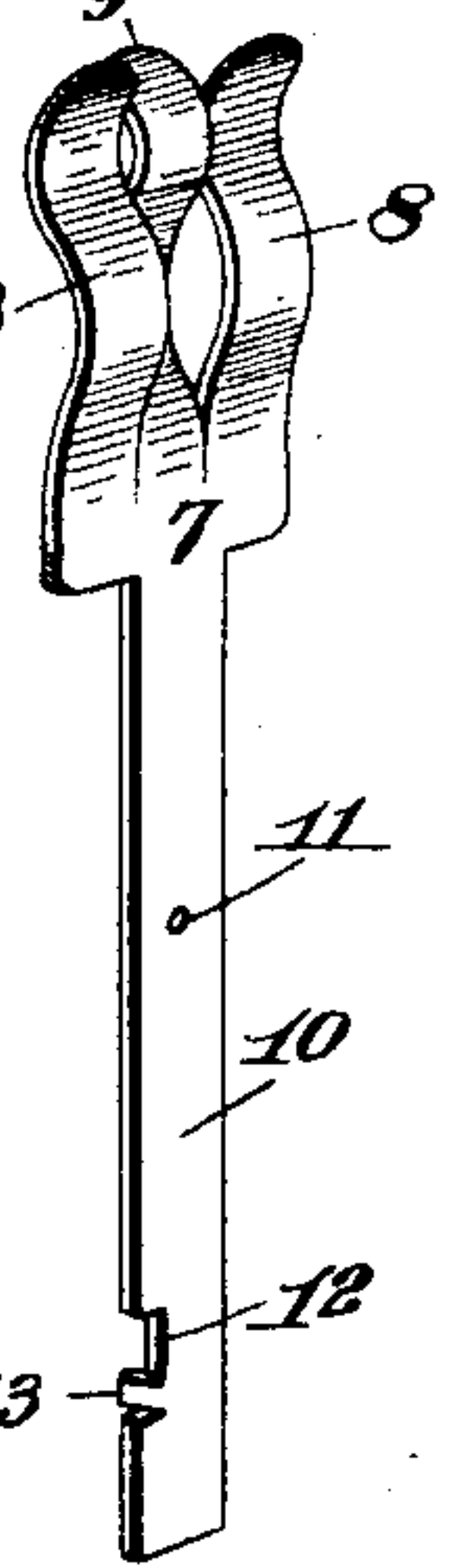


Fig. IV

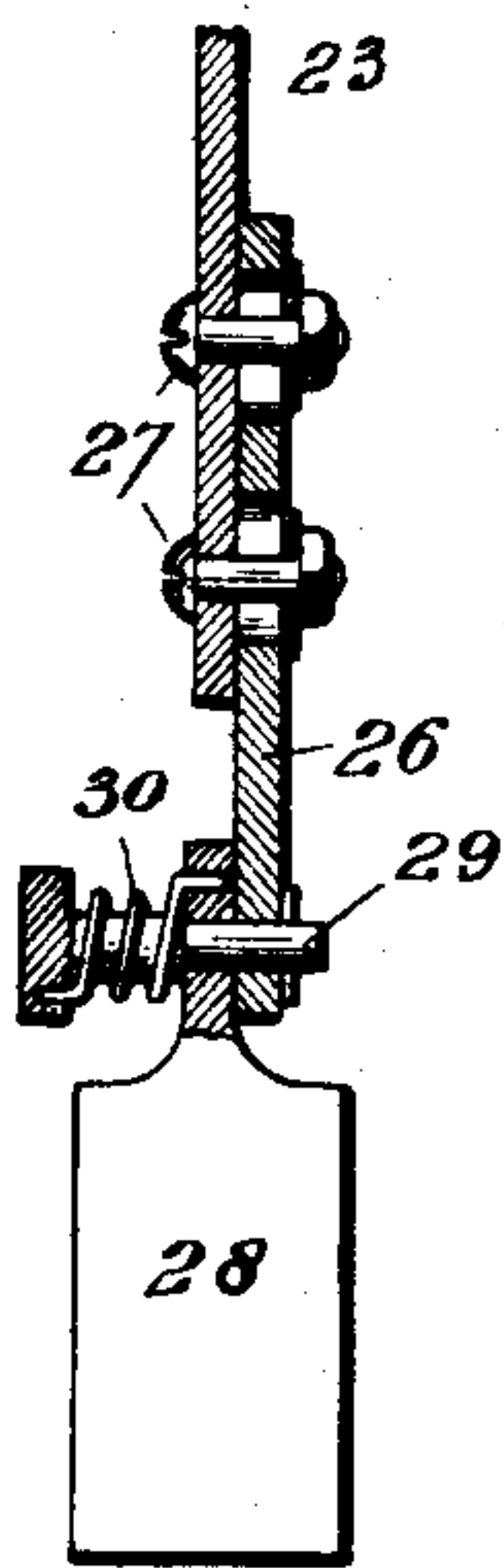


Fig. VII

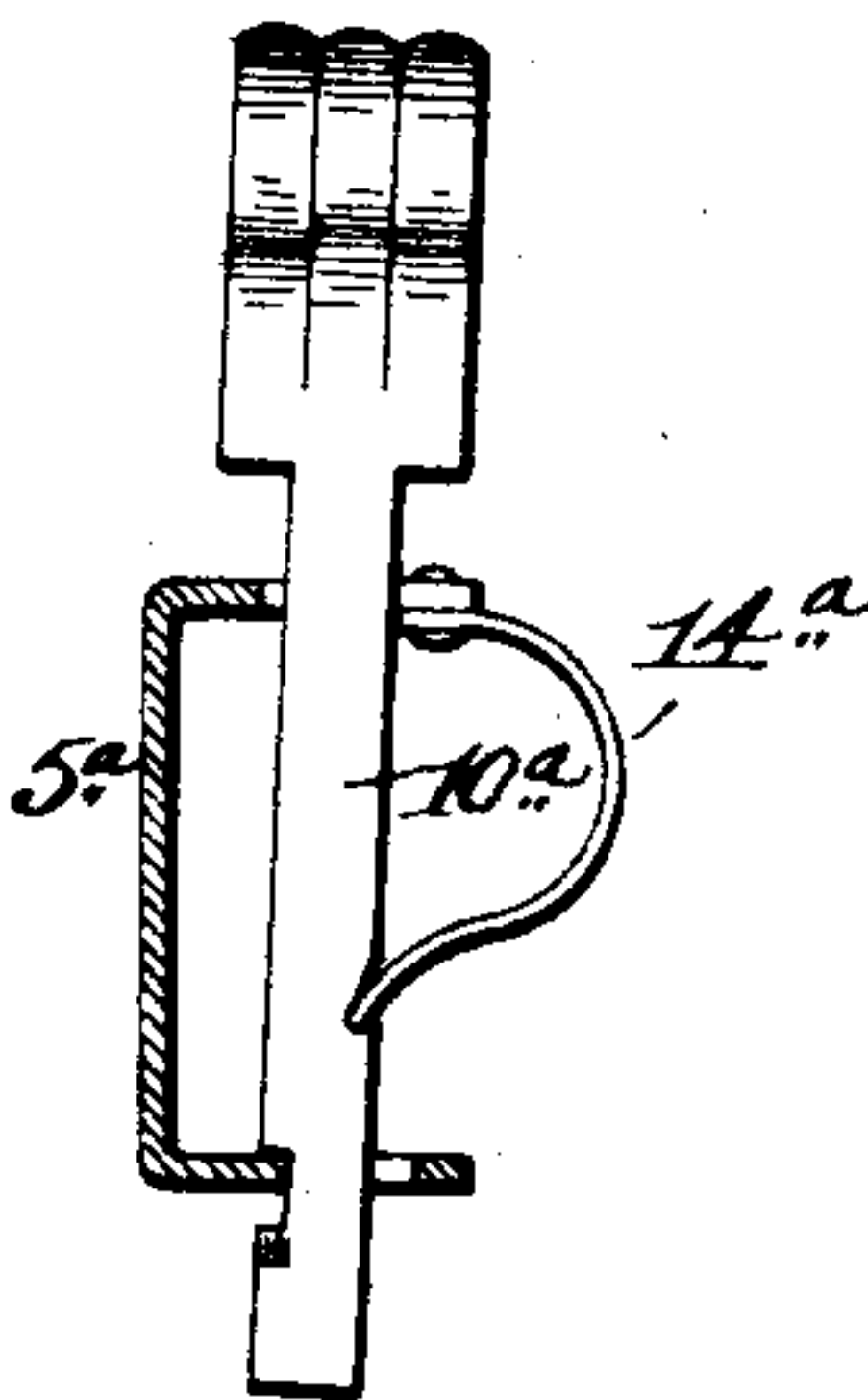
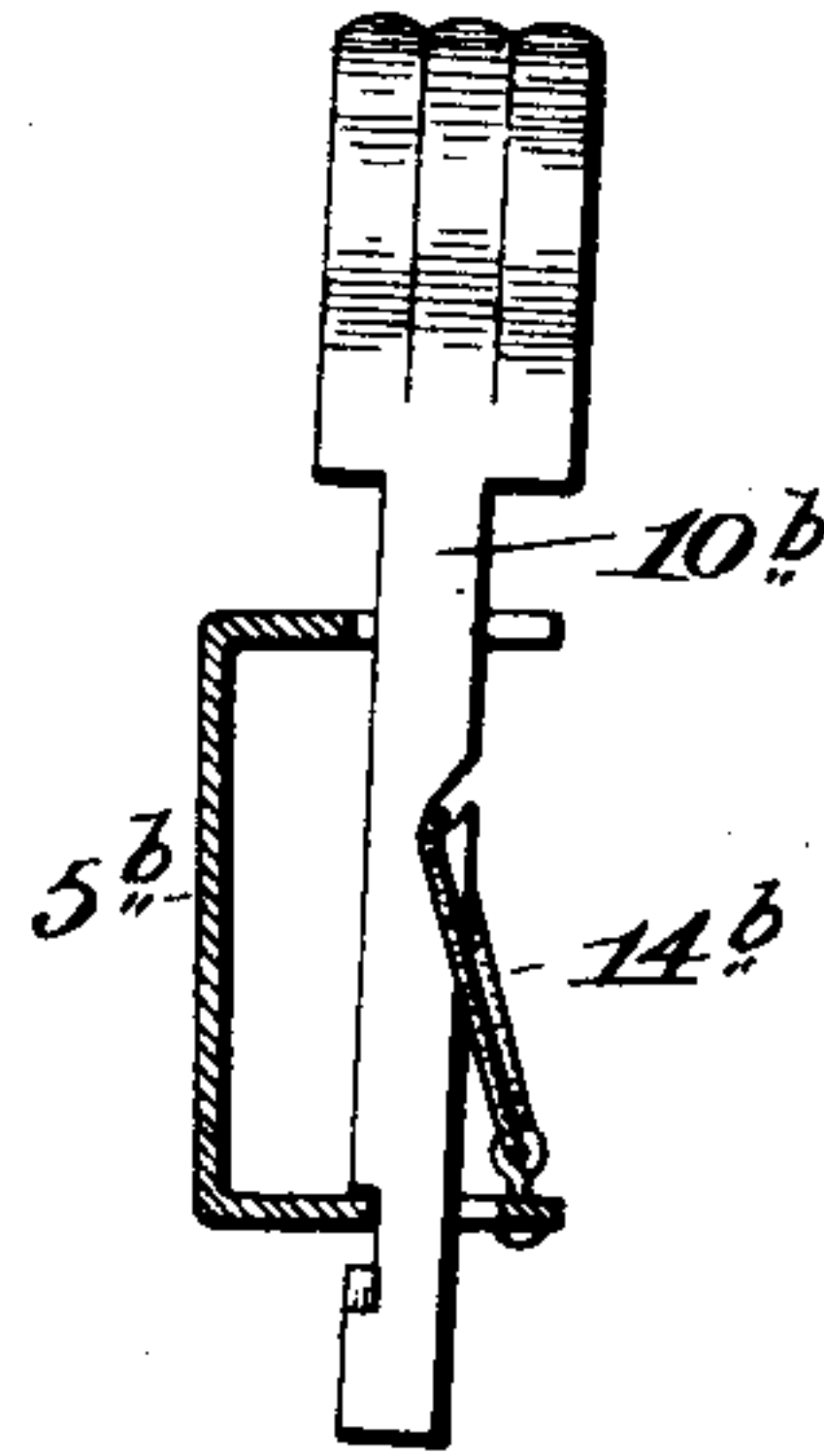


Fig. VIII.



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UNITED STATES PATENT OFFICE.

BENJAMIN DUBINSKI, OF SAN ANTONIO, TEXAS.

ELECTRIC PROGRAM-CLOCK.

SPECIFICATION forming part of Letters Patent No. 683,257, dated September 24, 1901.

Application filed April 1, 1901. Serial No. 53,919. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN DUBINSKI, a citizen of the United States, residing in San Antonio, in the county of Bexar and State of Texas, have invented certain new and useful Improvements in Electric Time-Reminder Clocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to that class of clocks designed for service in furnishing notice to the user of acts to be performed at previously-specified times or periods of the day.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a view in front elevation of my improved clock. Fig. II is a rear elevation. Fig. III is a detail perspective view of the revolving contact-carrying arm. Fig. IV is a longitudinal sectional view taken on the line IV IV, Fig. III. Fig. V is a sectional view taken on line V V, Fig. I, showing one of the card-holders in elevation. Fig. VI is a detail perspective view of one of the card-holders. Figs. VII and VIII are views illustrating modifications of the springs connected to the card-holders.

1 designates the back of a clock-face provided with a dial 2 and surrounded by a rim 3.

4 is a glass door that incloses the dial 2.

The rim 3 is surrounded by a hollow metallic ring 5, on the front and rear faces of which are numerals indicating the hours of the day and fractional parts of the hours. The numerals mentioned may designate the hours from one to twelve or from one to twenty-four, as may be desired, and the figures on the dial of the clock may also designate the hours from one to twenty-four instead of merely from one to twelve, as shown.

6 designates a casing inclosing the clock-movement, the said casing being suitably affixed to the back 1 of the clock-face.

The hollow ring 5, encircling the rim 3, is apertured at the location of each of the numerals on the rear face of said ring, and located in said apertures are a series of card-holders that extend from the exterior of the ring therethrough to the interior of the clock.

The card-holders are provided with heads 7, consisting of three prongs 8 and 9 of waving form, the two outer prongs 8 being bent in corresponding direction and the intermediate prong 9 being bent in opposing direction, so that when a card is slipped into the head 7 it will be gripped between the two prongs 8 on one side and the prong 9 on the opposite side, and thereby be held firmly to the holder. Each card-holder has a shank 10, provided with an aperture 11 and a notch 12. Beside the notch 12 is a tongue 13, that is bent at an angle to the main body of the shank.

14 is a spring surrounding the shank 10 of the card-holder within the hollow ring 5, said spring being adapted to rest at one end against the inner face of the outer wall of the ring and being connected to the shank 10 by passing its inner end through the aperture 11 in said shank. The tendency of the springs 14 is to carry the card-holders inwardly. When said card-holders are in their outermost positions, they are held by engagement with the inner wall of the hollow ring 5 by reason of the notches 12 being moved to said inner wall and the inner ends of the shanks being swung laterally, as illustrated in Fig. V, so that the shouldered edges of said shanks at the location of the notches will rest against the inner wall of the ring 5. When the inner ends of the shanks 10 of the card-holders are swung so as to move the notches 12 out of engagement with the ring 5, the springs 14 carry the card-holders inwardly, as illustrated by dotted lines in Fig. V, thereby projecting the inner ends of the shanks beyond the inner face of the ring 5. The tongues 13 serve as stops to limit the outward movement of the card-holders and prevent their extraction.

15 designates an alarm-bell that is connected by a wire 16 to a battery 17, and also connected by a wire 18 to a binding-post 19, fixed to the ring 5.

20 is a wire leading from the battery 17 to a binding-post 21, also fixed to the ring 5. The binding-post 19 is connected to the clock-movement casing 6 by a circuit-wire 22. The wire 20 conducts current from the battery to the ring 5 through the binding-post 21.

23 designates a contact-carrying arm fixed to and carried by the arbor 24 of the hour-

hand of the clock. The contact-carrying arm 23 is provided at one end with a counterbalance 25.

26 is a slotted slide adjustably connected to the contact-carrying arm 23 by bolts 27, that are seated in the arm 23 and pass through the slots in said slide.

28 is a contact pivoted to the slide 26 by a pin 29, the said pin being surrounded by a spring 30, that bears against the head of the pin and against the shank of said contact and serves to hold the contact normally in alignment with the slide 26 and also to return the contact to said normal position after it has been swung to one side, as will hereinafter appear.

In the practical use of the clock cards A, containing information as to the matter requiring attention at a specified time, are inserted in the heads 7 of the card-holders in the manner stated. The card-holders are normally at rest in their outer positions, as seen in Fig. V; but when a card is placed therein the holder is moved to trip its shank from engagement with the ring 5 and permit the spring 14 to carry the shank inwardly into a more projected position beyond the inner face of said ring. As the contact-carrying arm 23 moves around under the action of the clock-movement the pivoted contact 28 is carried to the inwardly-projected shank of the card-holder that has been moved inwardly, and the engagement of the pivoted contact with said shank effects the completion of the circuit from the battery over the wires 16, 18, and 22 to the movement-casing 6 and from said casing over the contact-carrying arm 23 and pivoted contact 28 through the card-holder to the ring 5 and back to the battery over the wire 20. The circuit is thus completed, causing the bell 15 to be rung, calling attention to the act to be performed at the time indicated at the location of the card-holder projected.

In Figs. VII and VIII, I have shown modifications of the springs by which the card-holders are projected during the day. In Fig. VII the shank 10^a of the card-holder is

provided with a notch that receives a bow-spring 14^a, that is fixed to the ring 5^a. In Fig. VIII the shank 10^b of the card-holder is provided with a notch that receives an endless elastic band-spring 14^b, that is connected to the ring 5^b.

It will be seen that by reason of the numerals applied to either the front or rear faces of the ring 5 in line with the positions of the card-holders 8 the time at which the reminding-alarm is to be furnished is accurately provided for, as each card-holder has its individual space, and thereby designates the hours or fractional part of the hour of the day at which the alarm may be sounded.

I claim as my invention—

1. In a reminder-clock, the combination with a clock-movement of a casing having circuit connection with an electric bell, a ring having circuit connection with said bell, a series of card-holders loosely arranged in said ring and adapted to be projected inwardly in said ring, an arm carried by said clock-movement, a slotted slide adjustably connected to said arm, a contact having a rearwardly-projecting perforated lug at right angles thereto, a pin pivotably securing the arm and lug together, and a spring coiled around the said pin, the ends of said spring being rigidly secured in said lug and head of the pin respectively whereby the contact is held normally in line with the slide, said contact being adapted to engage the inner ends of said card-holders, substantially as described.

2. In a reminder-clock, the combination with a clock-movement and a contact-arm carried by said movement, an apertured ring, a series of spring-actuated card-holders mounted in said ring, said card-holders comprising notched shanks adapted for engagement with said ring, and outer heads having waving prongs arranged to receive cards, substantially as and for the purpose set forth.

BENJAMIN DUBINSKI.

In presence of—

WILL A. HADDEN,
ERNEST HERRMANN.