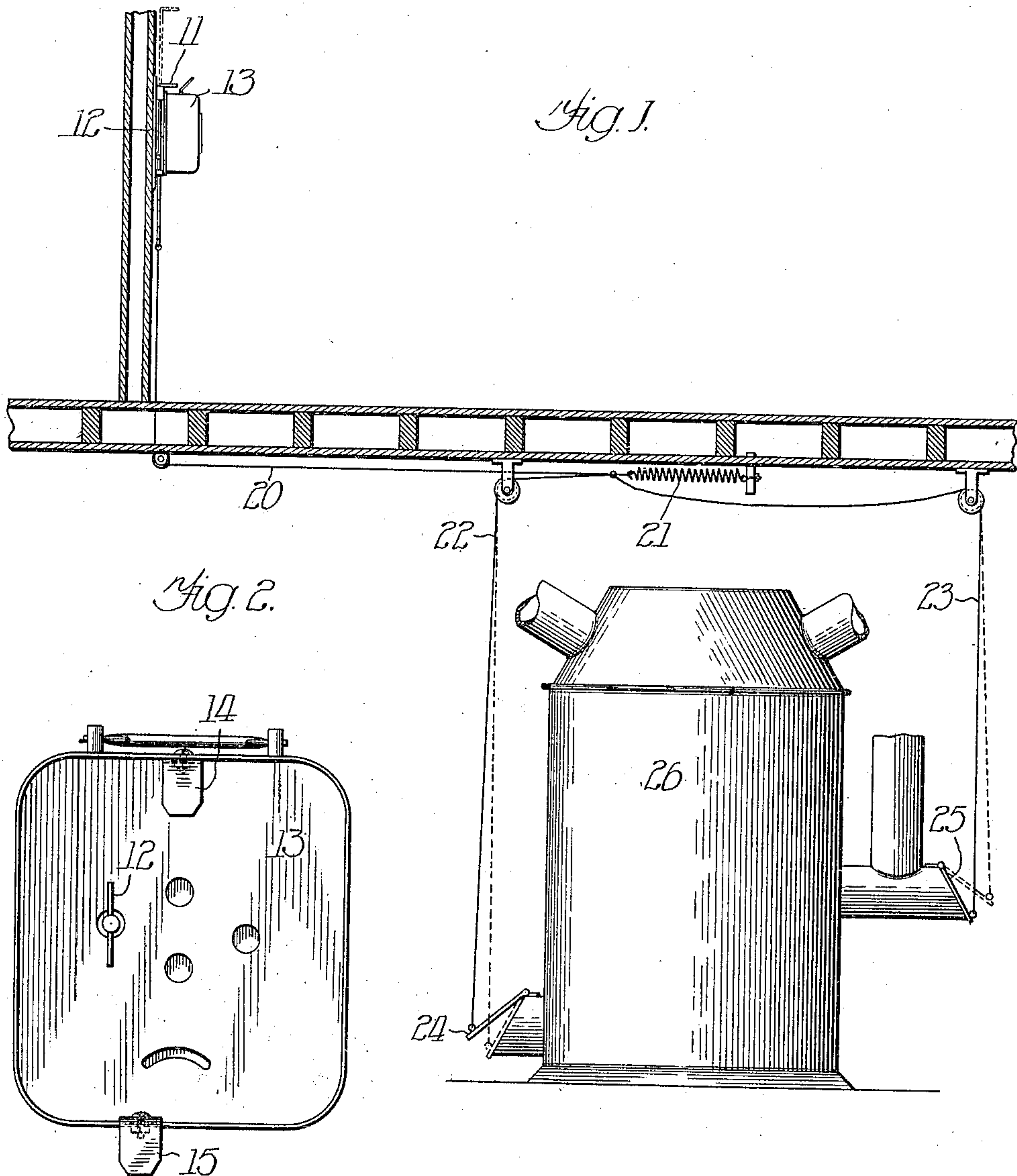


T. E. HUNT.
TIME REGULATOR.
APPLICATION FILED APR. 28, 1910.

985,593.

Patented Feb. 28, 1911.
2 SHEETS—SHEET 1.



Witnesses:
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J. S. Safford

Inventor:
Thomas E. Hunt
by John Howard McElroy
his Atty.

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2 SHEETS-SHEET 2.

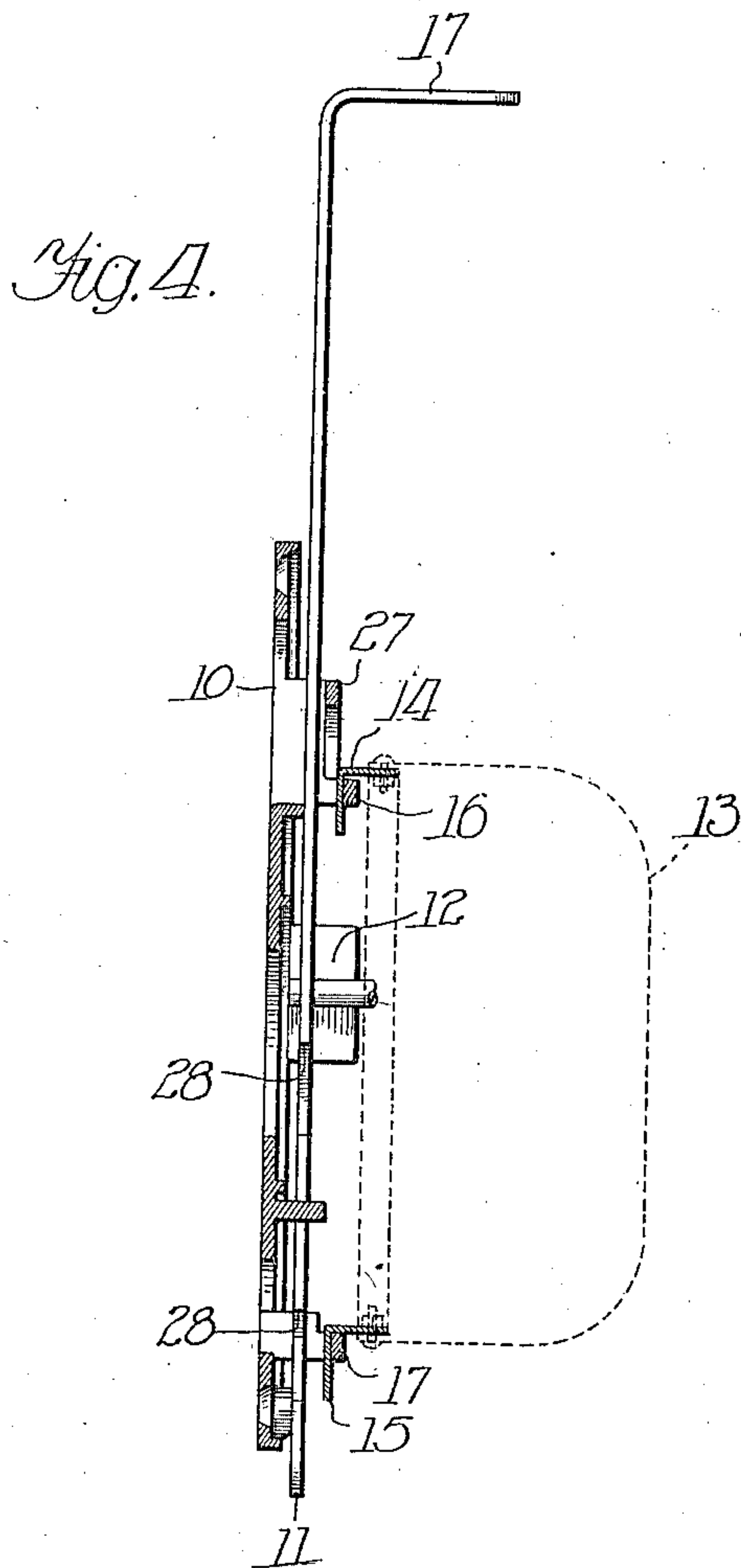
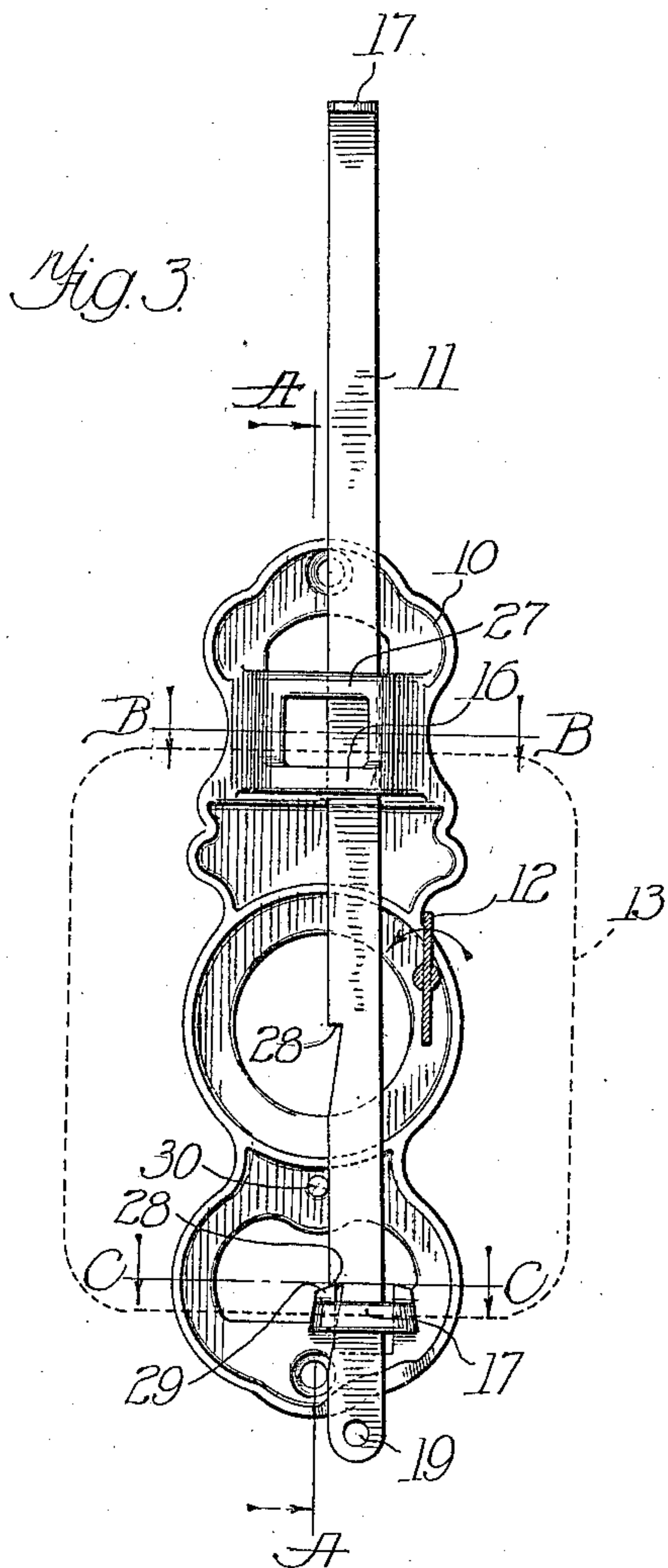


Fig. 5

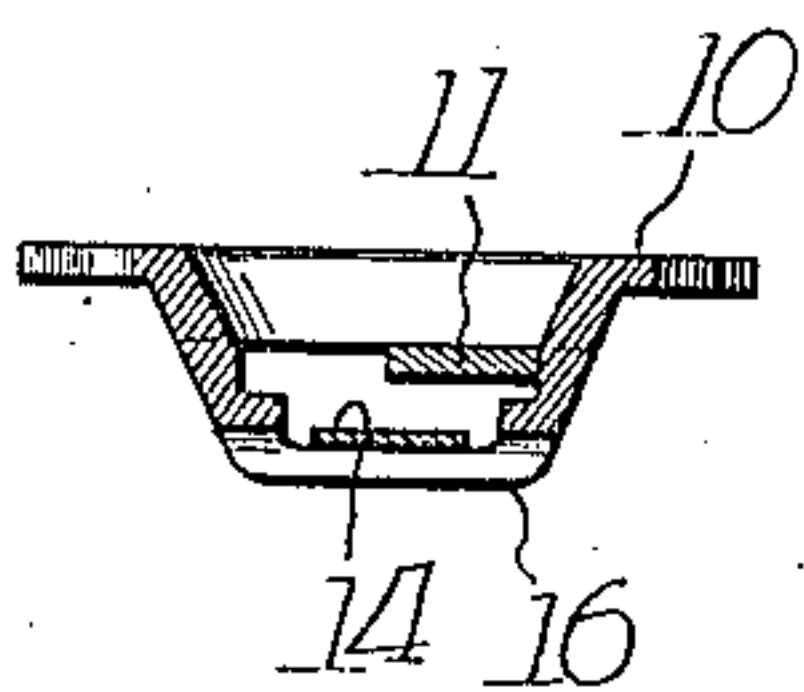
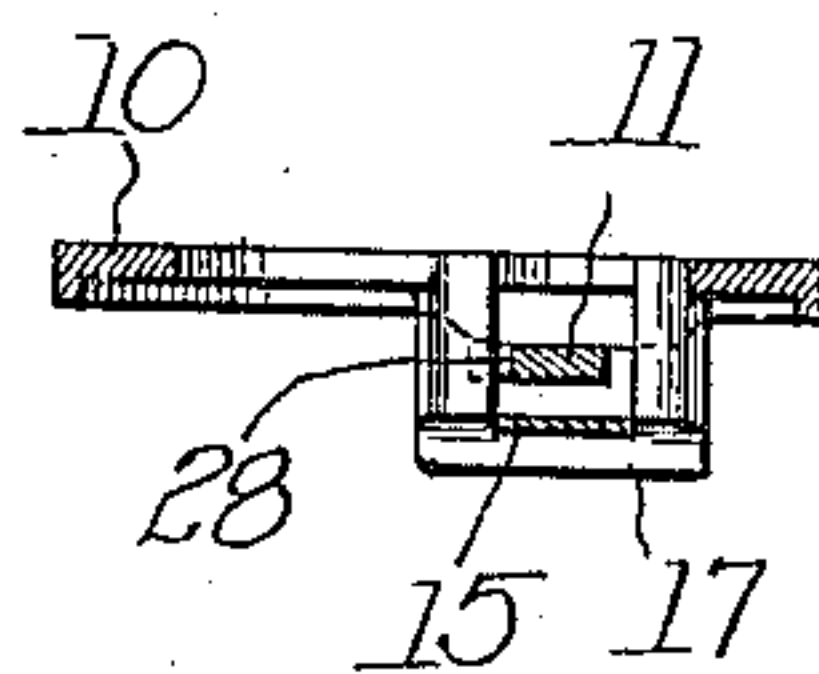


Fig. 6



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Inventor:

Thomas E. Hunt,

by John Howard Mc Gray, Atty.

UNITED STATES PATENT OFFICE.

THOMAS E. HUNT, OF BLUE ISLAND, ILLINOIS, ASSIGNOR TO QUAKER MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TIME-REGULATOR.

985,593.

Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed April 23, 1910. Serial No. 553,197.

To all whom it may concern:

Be it known that I, THOMAS E. HUNT, a citizen of the United States, and a resident of Blue Island, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Time-Regulators, of which the following is a full, clear, and exact specification.

My invention is concerned with time regulators of the general class shown in my Patent No. 716,548, dated December 23, 1902, and is designed to produce a simple and highly efficient mechanism which can be operated by an ordinary alarm clock, or a similar clock mechanism, at any desired time to control the operation of a furnace, or any other mechanism to be automatically operated at a set time.

To this end my invention consists in a certain novel combination of elements, as illustrated in the accompanying sheets of drawings, in which the same reference characters are used to designate identical parts in all the figures, of which,—

Figure 1 is a sectional view through a wall and flooring, showing my invention as applied to regulating the draft of a furnace; Fig. 2 is a rear elevation of a clock which may be employed in carrying out my invention, showing the clips added thereto by which it is secured upon the frame; Fig. 3 is an elevation of the operating mechanism, with the position of the clock thereon indicated in dotted lines and with the winding key thereof shown in section; Fig. 4 is a similar view in section on the line A—A of Fig. 3; and Figs. 5 and 6 are horizontal sections on the lines B—B and C—C, respectively, of Fig. 3.

As is readily apparent from Figs. 3 to 6, this extremely simple mechanism consists of a frame 10 and a bar 11 adapted to cooperate therewith and with the alarm-winding key 12 of a clock 13. As is well known, when an alarm clock is set for a certain hour, and that hour is reached, the alarm key begins to rotate in the opposite direction from that employed in winding it up, as the alarm action is caused by the unwinding of the spring wound up when the alarm is set. The clock 13 may be provided with two clips 14 and 15, preferably detachable, as shown, which cooperate with supporting flanges 16 and 17, respectively, forming a part of the frame 10, in the manner clearly

indicated in Fig. 4. The bar 11 preferably has the horizontal end 18, by which it is pulled up to set the apparatus, and the other end has the aperture 19, by which a cord or wire 20 is secured and is passed by suitable apertures over suitable sheaves to the spring 21, which may be conveniently located over or adjacent to the furnace. Connected to the spring 21 are other cords or wires 22 and 23, which extend to the door 24 and damper 25 of the furnace 26, so that the action of the spring when the bar 11 falls will cause the door 24 to be opened and the damper 25 to be closed. The flanges 16 and 17, in addition to furnishing supports for the hooks 14 and 15, also serve as guides for the bar 11, and another flange 27 assists in guiding the bar. The bar is provided with one or more notches 28, the horizontal shoulders of which are adapted to cooperate with the shoulder 29 formed on the frame 11 just above the flange 17. The frame also has the fulcrum lug 30 suitably located, so that when the alarm-winding key 12 of the clock begins to rotate in the direction indicated by the arrow in Fig. 3, it will engage the adjacent portion of the bar 11, which now becomes a lever with the fulcrum at 30, and with the load consisting of the weight of the lever supported by the shoulder of the notch 28 on the shoulder 29. The action of the winding key quickly serves to rock the lever until the shoulder is disengaged, when gravity, preferably reinforced by the spring 21, causes the bar to descend quickly. When the device is to be reset, the clock is removed, the alarm-winding key rewound, and the clock set to the hour desired, and replaced on the frame, after which the bar 11 is pulled up until the shoulders are engaged, after which it is ready for operation.

While I have shown and described my invention in the form which I at present consider best adapted to carry out its purposes, it will be understood that it is capable of modifications, and that I do not desire to be limited in the interpretation of the following claims except as may be necessitated by the state of the prior art.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

1. In a device of the class described, the combination with a frame adapted to receive a clock mechanism in juxtaposition therewith, and having a supporting shoulder and

a fulcrum member, of a bar adapted to have both a rocking and a longitudinal movement and having a shoulder cooperating with the supporting shoulder and adapted to be
5 rocked on the fulcrum member to disengage the shoulders to permit of its longitudinal movement.

2. In a device of the class described, the combination with a frame adapted to re-
10 ceive a clock mechanism in juxtaposition therewith, having guiding means and having a supporting shoulder adjacent one of said guiding means, and a fulcrum member, of a bar adapted to have both a rocking and
15 a longitudinal movement and having a shoulder cooperating with the supporting shoulder and adapted to be rocked on the fulcrum member to disengage the shoulders to permit of its longitudinal movement in
20 said guiding means.

3. In a device of the class described, the combination with a frame adapted to receive a clock mechanism in juxtaposition there-
25 with, having guiding means and having a supporting shoulder adjacent one of said guiding means, and a fulcrum member be-

tween said guiding means, of a bar adapted to have both a rocking and a longitudinal movement and having a shoulder cooperating with the supporting shoulder and adapt- 30 ed to be rocked on the fulcrum member to disengage the shoulders to permit of its longitudinal movement in said guiding means.

4. In a device of the class described, the combination with a frame having recesses 35 adapted to receive clips carried by a clock mechanism and to act as guides for the bar, said frame also being provided with a supporting shoulder and a fulcrum member, of a bar adapted to reciprocate in said recesses 40 and having a shoulder cooperating with the supporting shoulder and adapted to be rocked on the fulcrum member to disengage the shoulders.

In witness whereof, I have hereunto set 45 my hand and affixed my seal, this 26th day of April, A. D. 1910.

THOMAS E. HUNT. [L. s.]

Witnesses:

JOHN HOWARD McELROY,
F. E. BROM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
