

No. 613,155.

Patented Oct. 25, 1898.

T. KITSON.
TIME OPERATING VALVE.

(Application filed June 23, 1898.)

(No Model.)

Fig. 1.

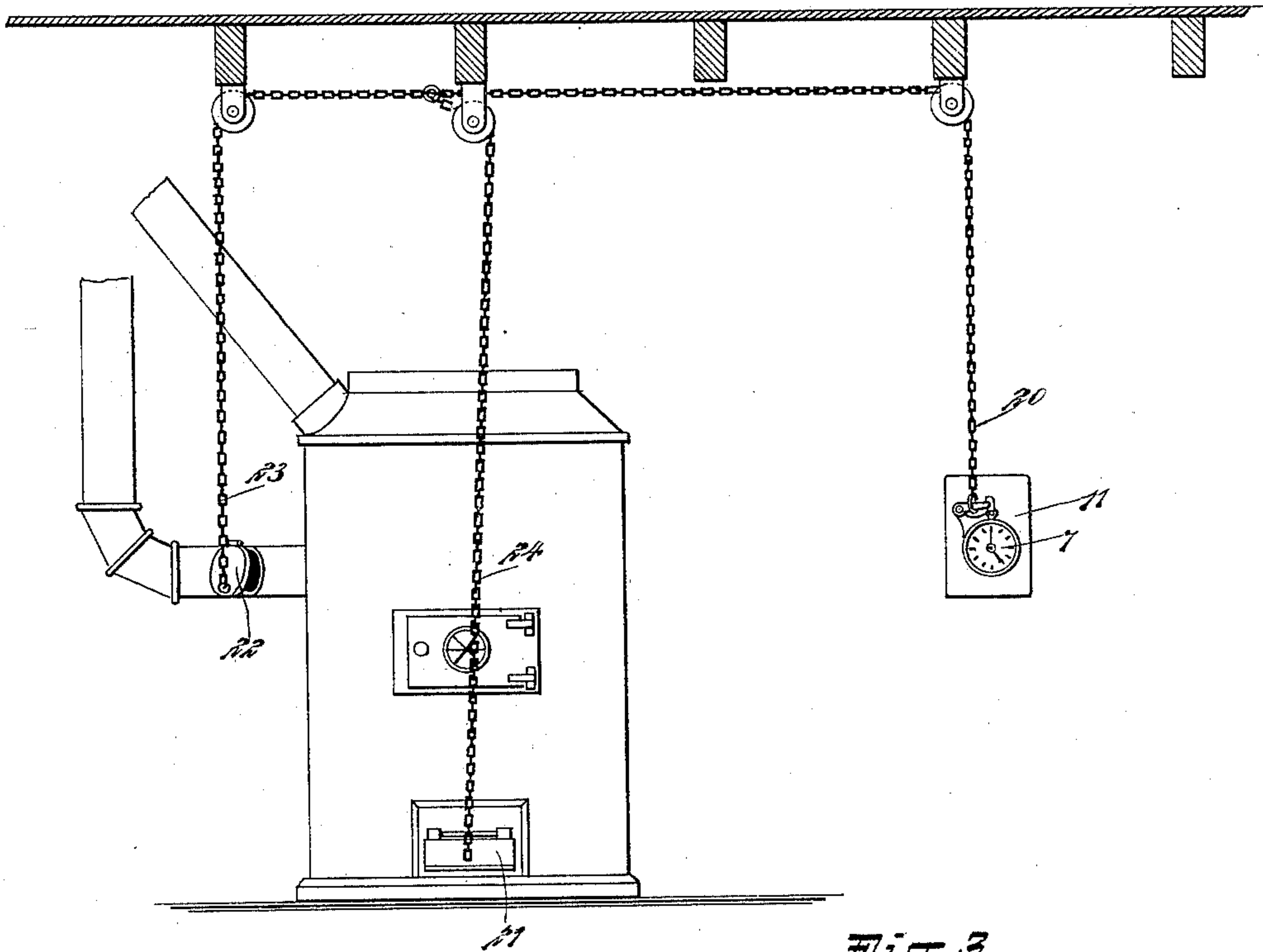
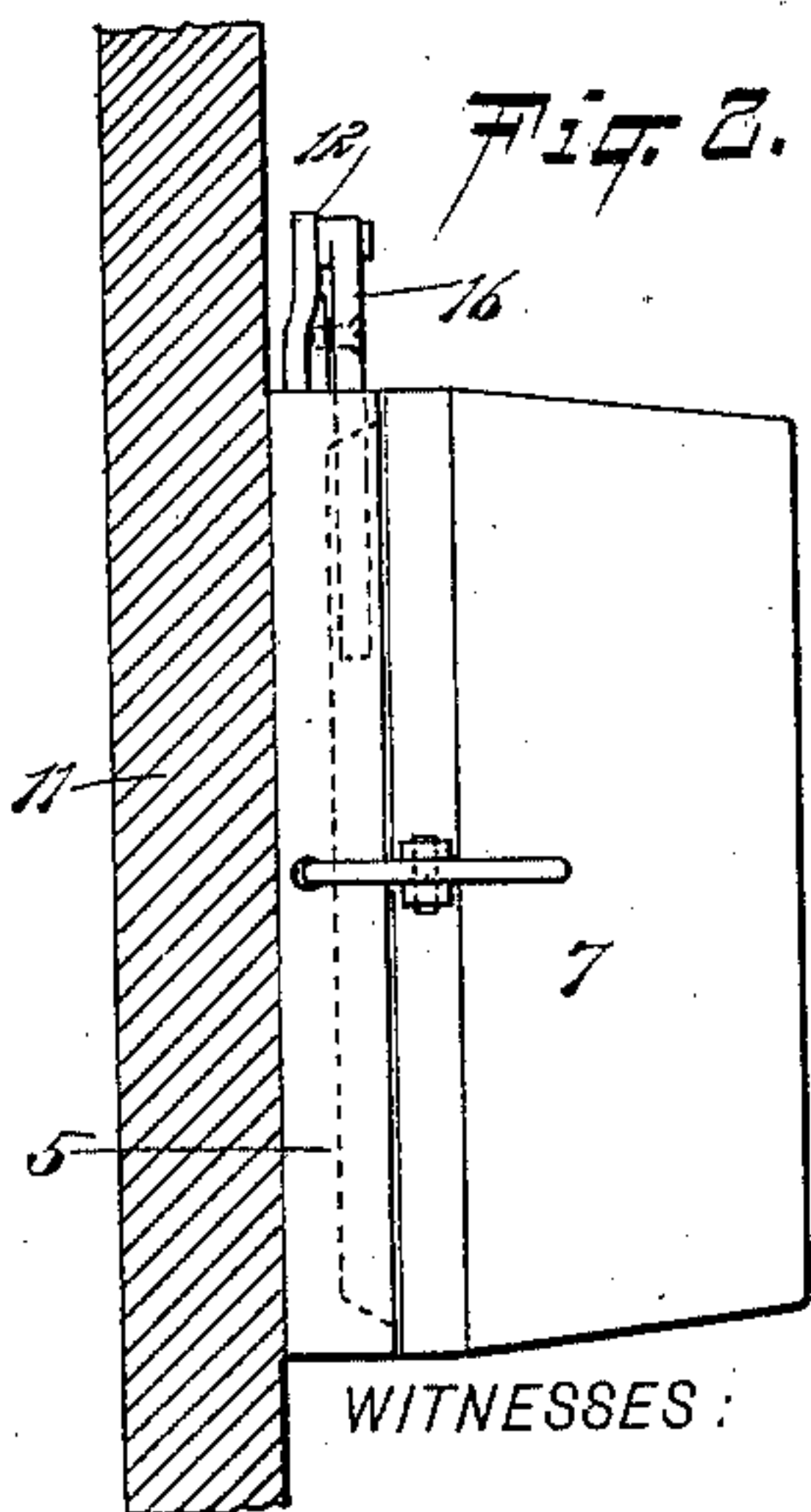


Fig. 2.



WITNESSES:

William P. Guebel.
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Fig. 3.

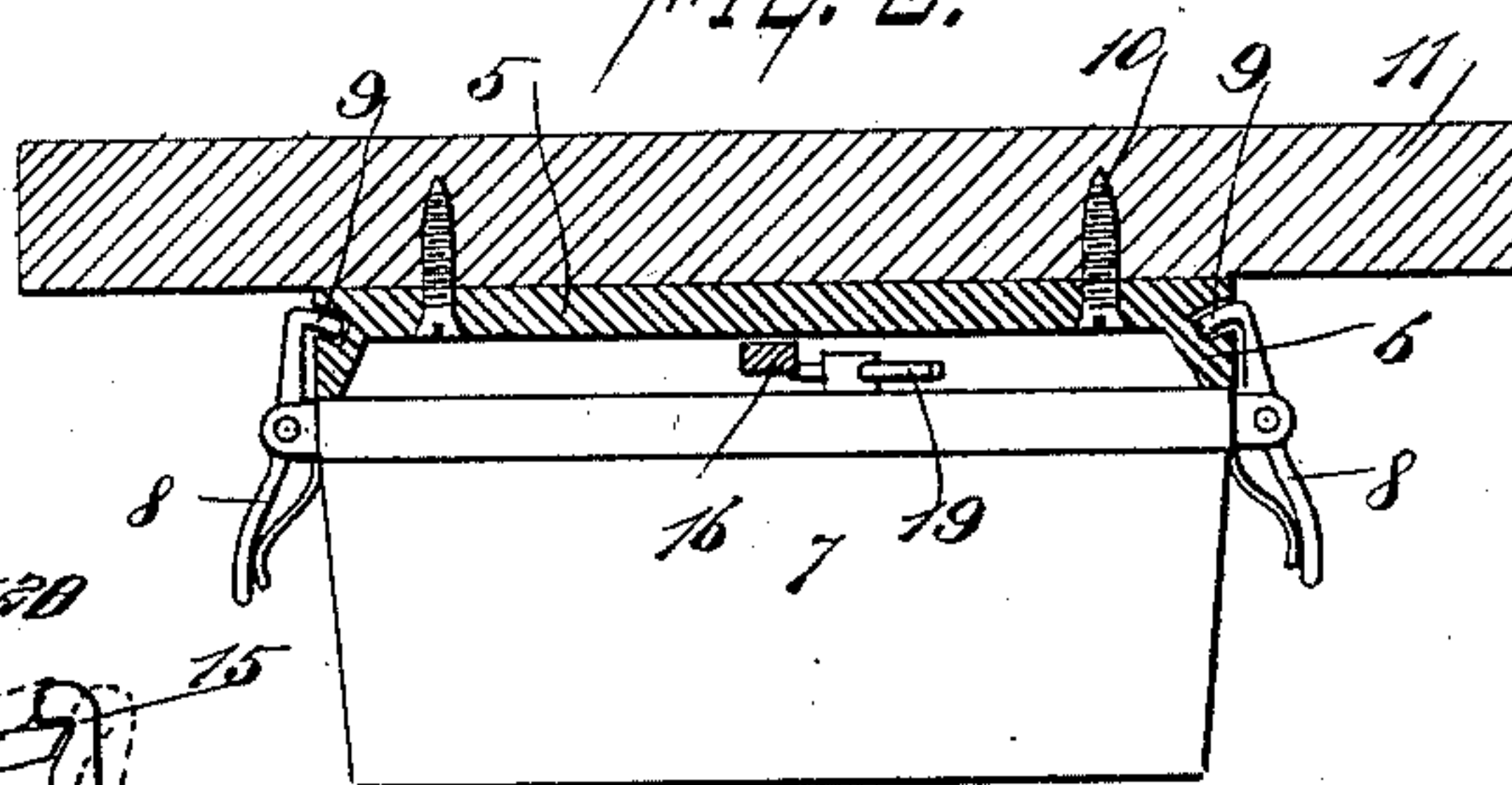
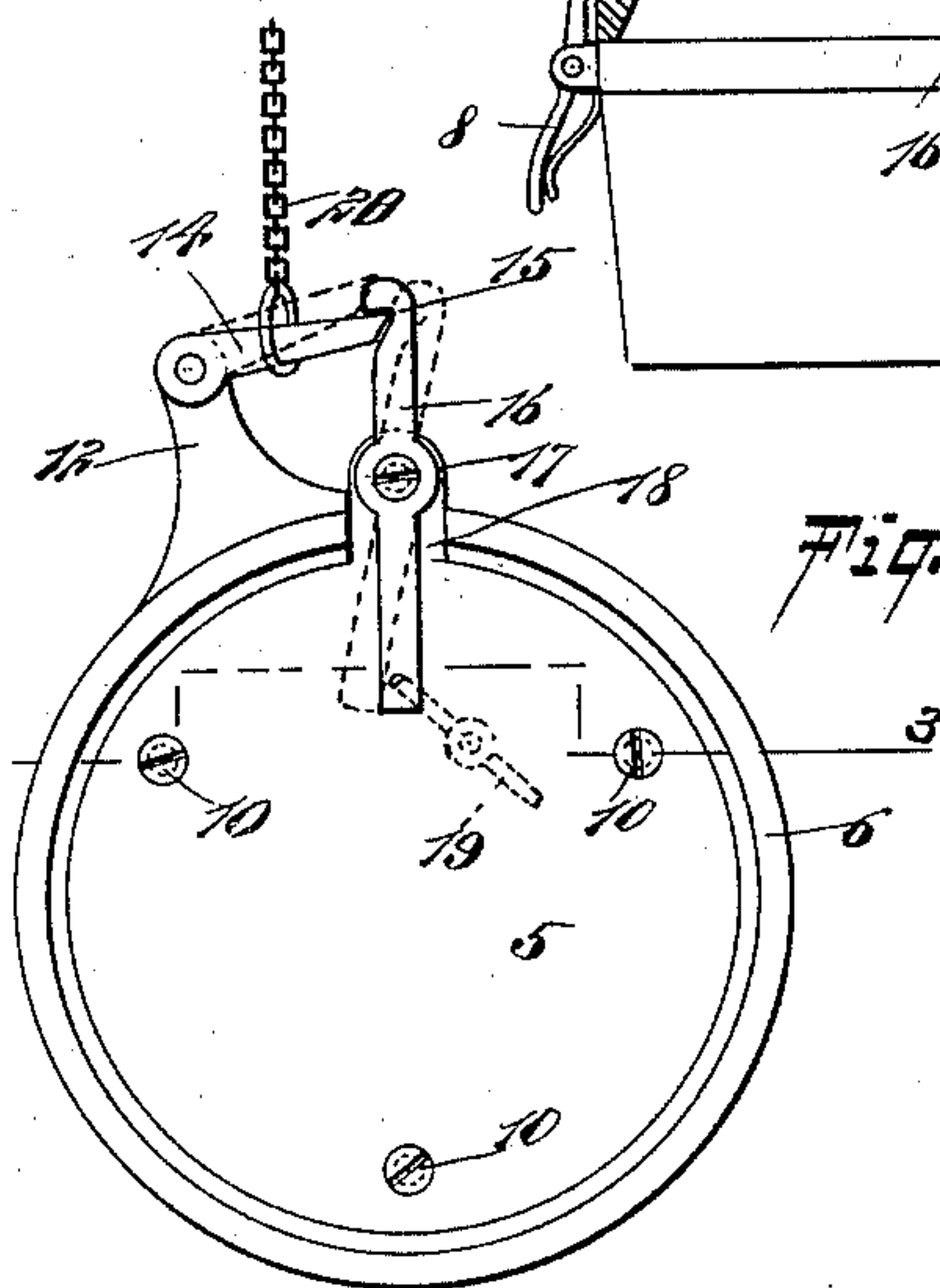


Fig. 4.



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THOMAS KITSON, OF STROUDSBURG, PENNSYLVANIA.

TIME-OPERATING VALVE.

SPECIFICATION forming part of Letters Patent No. 613,155, dated October 25, 1898.

Application filed June 23, 1898. Serial No. 684,266. (No model.)

To all whom it may concern:

Be it known that I, THOMAS KITSON, of Stroudsburg, in the county of Monroe and State of Pennsylvania, have invented a new and Improved Automatic Releasing Device, of which the following is a full, clear, and exact description.

This invention is a releasing apparatus adapted to be used in connection with an alarm-clock, so that as the alarm goes off mechanical devices are operated to release a chain or other connection.

The invention is adapted particularly to controlling the dampers and doors of stoves and the like, but of course is applicable to many other purposes.

This specification is the disclosure of one form of my invention, while the claim defines the actual scope of the invention.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is an elevational view of the invention applied to a furnace. Fig. 2 is a side elevation of the invention alone. Fig. 3 is a sectional view on the line 3 3 of Fig. 4, and Fig. 4 is a front face view of the device.

The device consists of a circular metallic plate 5, having an outwardly-extending peripheral flange 6, the edge of which engages the back of an ordinary alarm-clock 7. The alarm-clock 7 is provided at the sides opposite the hours "9" and "3" on the clock-dial with a spring-pressed lever-catch 8, the points of which catches are adapted to enter recesses 9 in the flange 6 of the plate 5. By these means the clock 7 and the plate 5 may be readily connected and disconnected. The plate 5 may be held by screws 10, entering a board or other support 11.

Projecting upwardly from the periphery of the plate 5 is an arm 12, which carries a pivoted finger 14, normally engaged with a hook 15, formed on a lever 16, pivoted to a short lug 17, projecting from the periphery of the plate 5, and the lever 16 extends through a break 18 in the flange 6, the lever lying snugly against the front face of the plate. The lever 16 is so arranged that it will be in the path of the bar or wing 19 of the alarm-spring of the clock. All of the ordinary alarm-clocks

are provided with mechanism which, as the alarm is sounded, unwinds, turning with it the bar or wing at the back of the clock by which the alarm mechanism is wound. Now the lever 16 is so juxtaposed to the alarm or wing 19 of the alarm mechanism that as this turns in the unwinding of such mechanism the lever is engaged by the wing or arm and thrown outward to the position shown by dotted lines in Fig. 4, whereupon the finger 14 is released and the chain 20, ordinarily held by said finger, is permitted to slide off the arm 14, so as to be released.

The chain 20 may be connected in any way with the device or devices that are to be actuated by the automatic releasing device. The arrangement shown in the drawings is one in which the draft-door 21 of the furnace and the damper 22 of the furnace are connected with oppositely-rove branches 23 and 24 of the chain 20, so that as the chain 20 is slacked off at the clock the branch 23 of the chain drops to permit the damper 22 to close and the branch 24 of the chain is moved upward to open the door 21. In this case the damper 22 must be heavier than the door 21, or, if necessary, it may be weighted to accomplish the operation explained.

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

In an automatic releasing device for alarm-clocks, the combination of a circular back plate adapted to be attached to the clock, and having an annular flange at its edge, the flange projecting from one face of the plate to engage with the clock, and having a break therein, a lug attached to the plate and projecting therefrom at the point of the break in the flange, a lever fulcrumed on the lug and having one arm projected through the break in the flange and alongside of the inner face of the plate, an arm rigid with the plate and projecting outwardly therefrom adjacent to the lug, and a finger pivoted to the arm and engaged with the outer end of the lever, whereby to hold the finger until the lever is thrown.

THOMAS KITSON.

Witnesses:

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