

(Model.)

G. P. CONANT,  
BURGLAR ALARM.

No. 255,722.

Patented Mar. 28, 1882

Fig. 2

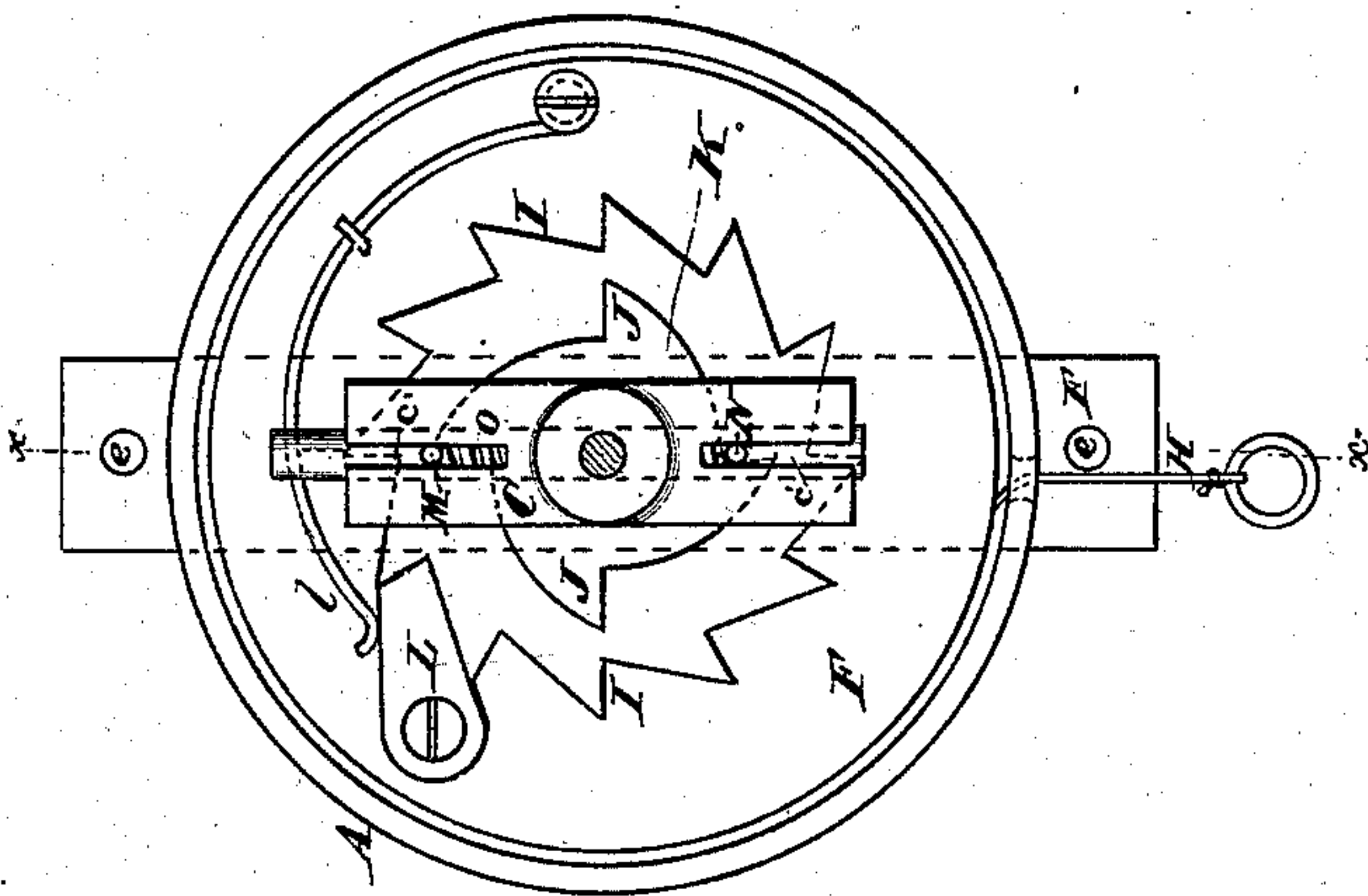


Fig. 1

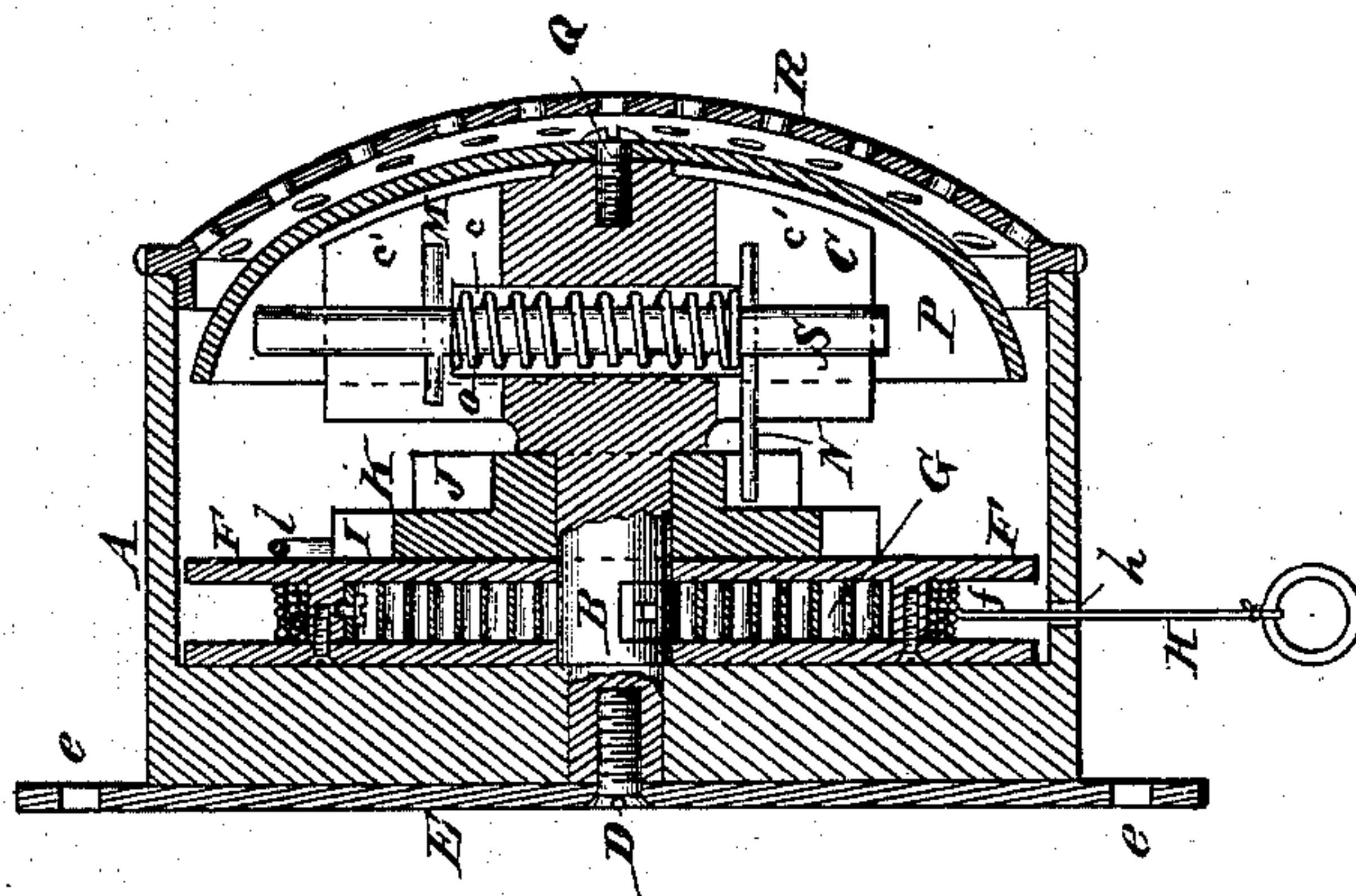
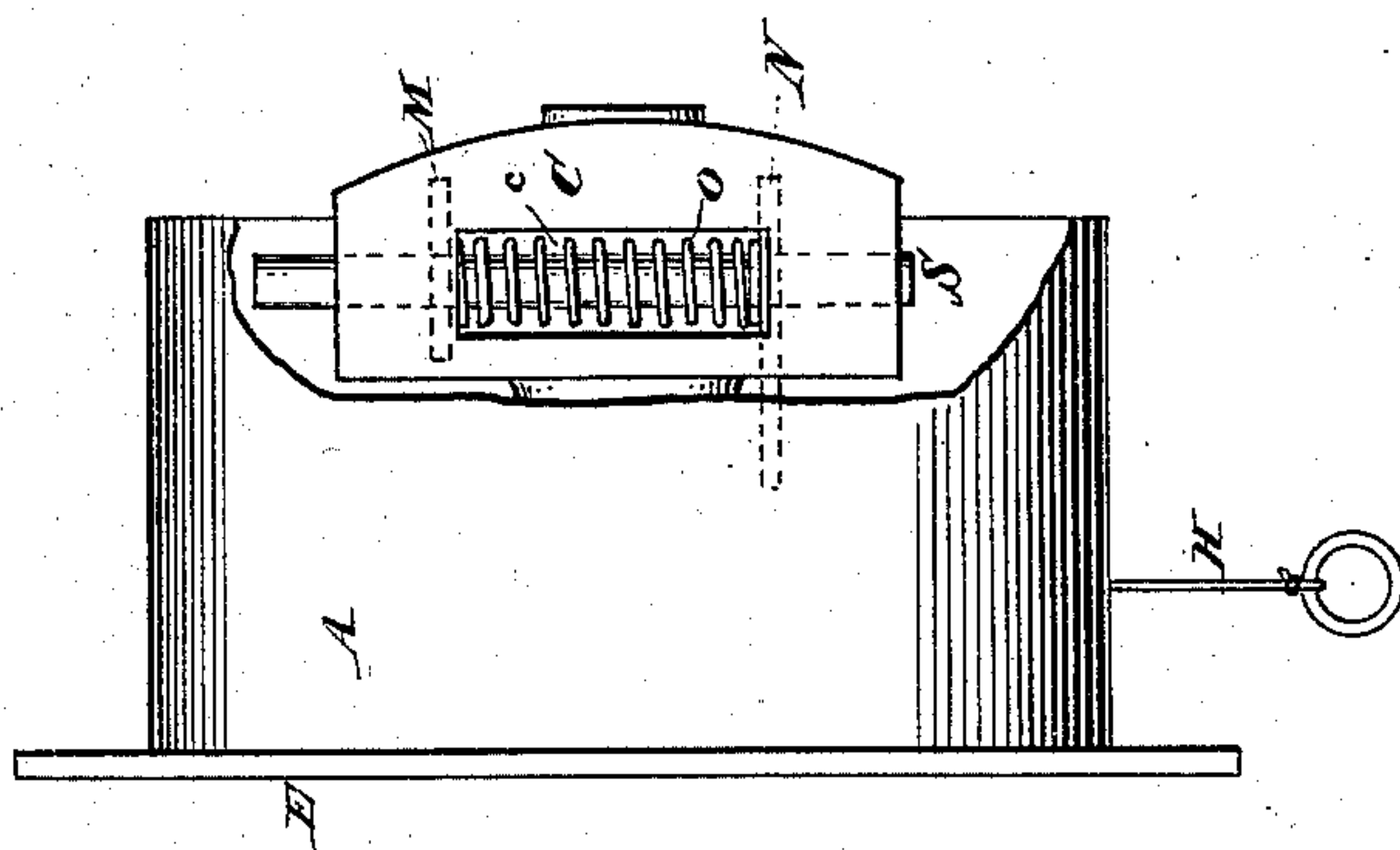


Fig. 3



WITNESSES:

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INVENTOR

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By

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# UNITED STATES PATENT OFFICE.

GEORGE P. CONANT, OF GENEVA, ASSIGNOR OF TWO-THIRDS TO ALBERT E. LYTLE, OF GENEVA LAKE, WISCONSIN, AND CARLOS A. COOK, OF CHICAGO, ILLINOIS.

## BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 255,722, dated March 28, 1882.

Application filed July 29, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, GEORGE PUTMAN CONANT, of the city of Geneva, in the county of Walworth, in the State of Wisconsin, have invented an Improvement in Alarms, of which the following is a specification.

My invention has reference to alarm-signals or call-bells in general; and it consists essentially of mechanism adapted to be operated by a pull-cord or equivalent device to actuate a hammer of a specific construction, said hammer being reciprocated several times, preferably in rapid succession, and caused to strike a bell which emits the desired sound, signal, or alarm.

It further consists in ratchet devices in combination with a spring, said ratchet devices operating to ring the bell upon putting the spring under tension, and vice versa; and, further, in a reciprocating hammer adapted to be reciprocated by a cam or ratchet device, said hammer being combined with a spring to impart the striking momentum to the hammer, and also to induce a positive recoil, thereby causing the sound emitted from the bell to be both loud and clear; and, finally, in minor details of construction, all of which are more fully set forth in the following specification, and shown in the accompanying drawings, which form part thereof.

The object of this invention is the construction of an alarm adapted to indicators, signals, &c., but more particularly to burglar-alarms, where a series of sharp rings in rapid succession are required. When made small and adapted to pocket use, it is connected to the watch or pocket-book. When used as a burglar-alarm it is secured in any suitable place, and connected by the cord to the door or windows, or both. When used with an indicator it is adapted to ring when any change takes place, and thereby call the attention of the public to such change. It is also adapted to many other uses which need not be enumerated here.

In the drawings, Figure 1 is a sectional elevation of my improved alarm on line *xx*, Fig. 2. Fig. 2 is a front elevation of same with the

bell and cover removed. Fig. 3 is a side elevation of same with cover and bell removed.

A is the box or case to hold and protect the working parts. B is a stud which is rigidly secured to the box A by screw D, which also secures the plate E, provided with holes *e*, to the back of said case.

Working loosely on the stud B are the grooved wheel F and the ratchet-wheel K, provided with teeth I and J. The wheel F is provided with a groove, *f*, upon its periphery, upon which the cord H is wound, one end of said cord being secured to the wheel F, and the other end passes through the hole *h* in the case or box A, as shown in Fig. 1. A coiled spring, G, is placed in the wheel F, and has one end secured to said wheel and the other end to the stud B. The wheel K may be made in one or two pieces, and is loosely arranged upon the stud B. The ratchet-teeth I are small and are numerous, while the teeth J are large and few in number. A pawl, L, pivoted to the wheel F, is pressed against the teeth I by a spring, *l*. Secured to the end of the stud, or forming part of same, is the head C, which is provided with a large slot, *c*, and two small slots, *c'*, at right angles to slot *c*. The hammer S works through the slots *c* and *c'*, and is provided near each end with pins M and N, which work in the slots *c'*, the pin N extending to and resting upon the teeth J. A coiled spring, O, encircles the hammer S, and presses normally upon both pins M and N, but when working to ring the bell the spring rests against one end of the slot *c*.

Secured to the head C by a screw, Q, is the bell P. A cover or perforated cap, R, is adapted to cover the bell P, but not touch it, when the alarm is to be handled or placed in the pocket, to prevent deadening of the sound from contact of the bell with other bodies.

The operation is as follows: Upon pulling the cord H the wheel F is rotated and the spring G wound up. The pawl L catching the teeth I causes the wheel K to be rotated, which action also rotates the teeth J, which presses back the pin N and its hammer S, and allows it to be forced out again, thereby producing in-



termittent reciprocating motion. As the hammer is pressed back the pin M compresses the spring O against one end of the slot *c*. Upon the end of the tooth J passing the pin N the spring O presses upon the pin M and forces the hammer S back, causing it to strike the bell P. As the hammer is shot forward, and just before it strikes the bell, the pin N strikes the spring and compresses it to a slight extent, which compression immediately produces the recoil of the hammer by withdrawing it away from the bell and bringing it to its normal position. This action is repeated every time a new tooth strikes and acts upon the pin N. The number of rings given is dependent upon the length of cord pulled out and upon the number of teeth J in the wheel K. Upon releasing the cord the spring G uncoils itself and winds the cord upon the wheel F again.

I do not limit myself to the exact construction shown, as the construction may be varied in many ways without in any wise departing from my invention.

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

1. In an alarm or signal, a cord or its equivalent, in combination with a drum, a bell, and intervening mechanism, whereby a series of intermittent sounds are emitted from the bell by striking of the hammer upon pulling out the cord, when arranged with said hammer, and a pawl-and-ratchet device to free the hammer and prevent its striking upon the cord being wound up again, substantially as and for the purpose specified.

2. In an alarm or signal, a wheel and a cord adapted to be wound upon said wheel, in combination with a bell, a reciprocating hammer, and intermediate ratchet devices, whereby a single pull upon the cord produces a series of intermittent rings from the bell, substantially as and for the purpose specified.

3. In an alarm or signal, a wheel and a cord adapted to be wound upon said wheel by a spring, in combination with a bell, a reciprocating hammer, a spring adapted to impart both the striking momentum and recoil to the hammer, and connecting devices, whereby a single pull upon the cord produces a series of intermittent rings from the bell, substantially as and for the purpose specified.

4. In an alarm or signal, a hammer to strike the bell, provided with two pins or stops, in combination with a spring, said spring alternately pressing against each of said stops to impart the striking momentum to the hammer, and also produce the recoil, substantially as and for the purpose specified.

5. In an alarm or signal, the combination of case A, stud B, provided with head C, wheel F, spring G, cord H, wheel K, provided with ratchet-teeth I and J, pawl L, hammer S, spring O, pins M and N, bell P, and cap R, substantially as and for the purpose specified.

6. In an alarm or signal, the ratchet-teeth J, in combination with stud B, provided with head C, hammer S, spring O, adapted to produce both the striking momentum and recoil to the hammer, and bell P, substantially as and for the purpose specified.

7. A hammer device for an alarm or signal, consisting of the head C, provided with slots *c* and *c'*, hammer S, provided with pins M and N, and spring O, adapted to produce both the striking momentum and recoil to the hammer, all constructed substantially as and for the purpose specified.

I testimony of which invention I hereunto set my hand.

GEORGE PUTMAN CONANT.

Witnesses:

R. M. HUNTER,  
ALBERT E. LYTLE.