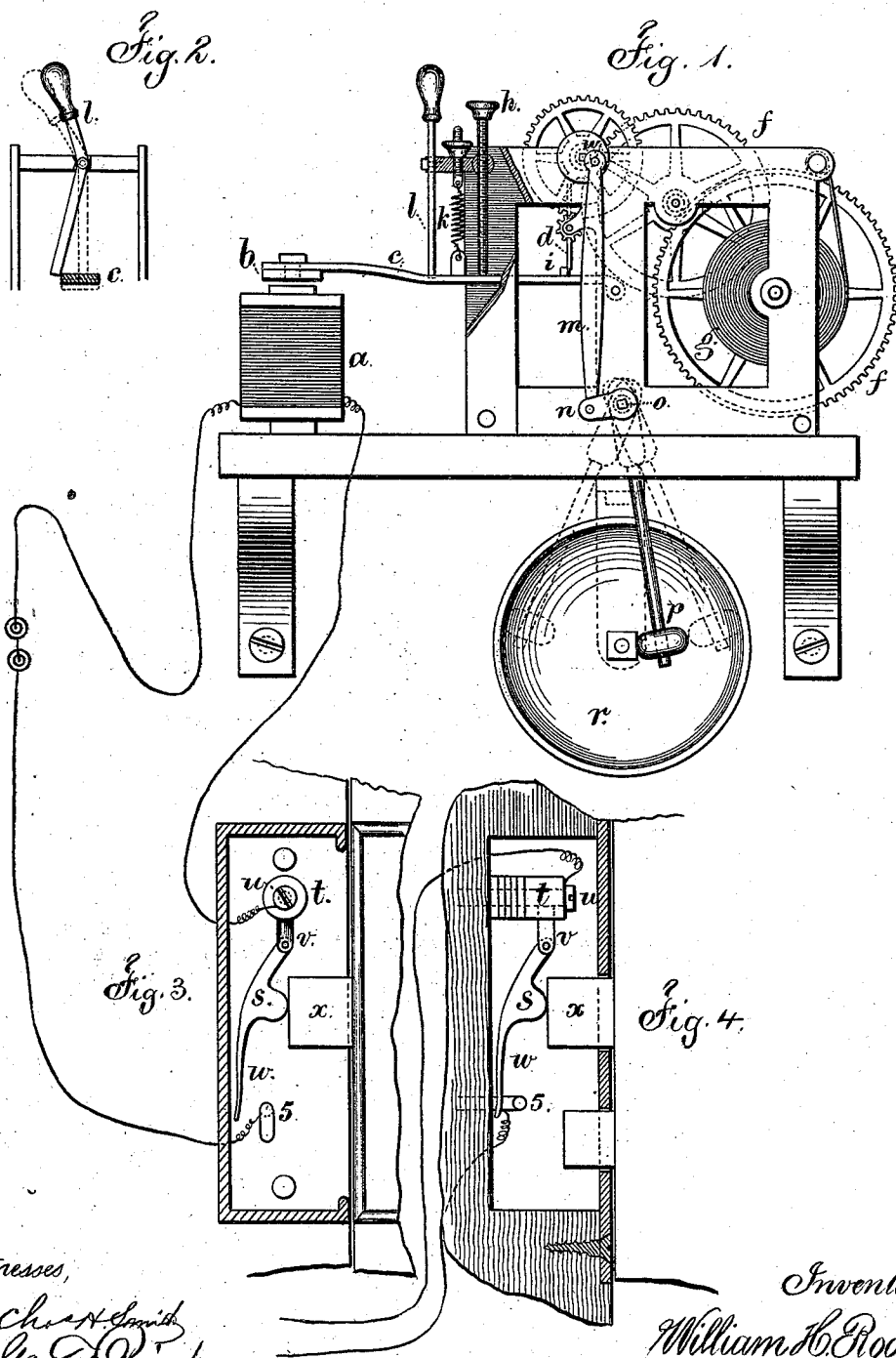


W. H. RODGERS.
ELECTRIC BURGLAR-ALARM.

No. 174,156.

Patented Feb. 29, 1876.



Witnesses,
Chas. Smith
Geo. S. Pinckney

Inventor
William H. Rodgers
per L. M. Serrell
att'y.

UNITED STATES PATENT OFFICE.

WILLIAM H. RODGERS, OF BROOKLYN, ASSIGNOR TO HIMSELF AND CHARLES H. BURTIS, OF NEW YORK, N. Y.

IMPROVEMENT IN ELECTRIC BURGLAR-ALARMS.

Specification forming part of Letters Patent No. 174,156, dated February 29, 1876; application filed January 27, 1875.

To all whom it may concern :

Be it known that I, WILLIAM H. RODGERS, of the city of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Burglar-Alarms, of which the following is a specification :

I make use of a train of gearing to ring a bell, and said gearing acts through a crank, link, and arm upon the hammer to strike the bell in both directions.

The train of gearing is stopped from revolving by a detent on the armature-lever, and a swinging blocking-piece holds the armature after it has been attracted by the magnet, so that the train of gearing continues to ring the bell until it runs down or is stopped, even if the circuit should be instantly closed after it has been broken, thus giving a loud, continuous alarm.

I also make use of a peculiarly-constructed circuit-closing device, that is placed in the nosing of the lock, and operates by gravity, the parts being constructed so that they can be used with either a rim or mortise lock.

In the drawing, Figure 1 is an elevation of the train of gearing and alarm. Fig. 2 shows the swinging stop for the armature-lever. Fig. 3 represents the stop for the bolt in position for use with a rim-lock and nosing; and Fig. 4 shows the same parts in the position for use with a mortise-lock and nosing.

The electro-magnet *a* is in the circuit leading to the battery and the indicating or alarm mechanisms upon doors, windows, &c. *b* is the armature and *c* the armature-lever. *i* is a detent or stop upon this lever *c* to hold the fly *d* of the train of gearing *f*, that is operated by the spring *g* or a weight. The screw *h* forms an adjustable stop to the armature, and the spring *k* holds the armature away from the electro-magnet, except when the latter is energized by the closing of the circuit, and *l* is a weighted stop, the lower end of which lies against the side of the armature-lever, and falls or moves over the same the instant the electro-magnet is energized, and

holds the armature and lever from receding when the electro magnet is demagnetized.

The movement of the armature-lever *c* liberates the fly *d* by drawing back the detent *i*, and allows the train of gearing to propel the crank-pin *w*, and by the link *m*, arm *n*, shaft *o*, and hammer *p* to ring the bell *r*, and this hammer and its actuating mechanism are located so that the bell is struck on both the back and front stroke of the hammer.

The weighted circuit-closer *s* is hung upon the head-piece *t*, through which a screw, *u*, passes to connect the same in place, and the weight *s* and head *t* are connected by a swivel, *v*, so that the head *t* can be turned into any position desired to the weight *s*, as illustrated in Figs. 3 and 4, to suit the nosing of a rim or mortise lock.

From the weight *s* a spring-finger, *w*, hangs, and when the bolt *x* is withdrawn the weight moves so as to bring the spring-finger *w* into contact with the circuit-closing pin or stud 5.

This weighted circuit-closer may be used with a window when the edge of the sash is cut as an incline. One wire connects with the screw or head *t* and the other is attached to the stud 5.

I claim as my invention—

1. The combination, in an electrical burglar-alarm, of a train of gearing, a crank *w*, link *m*, arm *n*, hammer *p*, and bell *r*, with the electro-magnet *a*, armature, and detent *i* for holding the train of gearing, and the swinging weighted stop *l* to hold the armature when first attracted, as and for the purposes set forth.

2. The circuit-closing weights *s* connected by a swivel, *v*, to the head-block *t*, and provided with the circuit-closing finger *w* and stud 5, as and for the purposes set forth.

Signed by me this 23d day of January, A. D. 1875.

WM. H. RODGERS.

Witnesses :

GEO. T. PINCKNEY,
CHAS. H. SMITH.