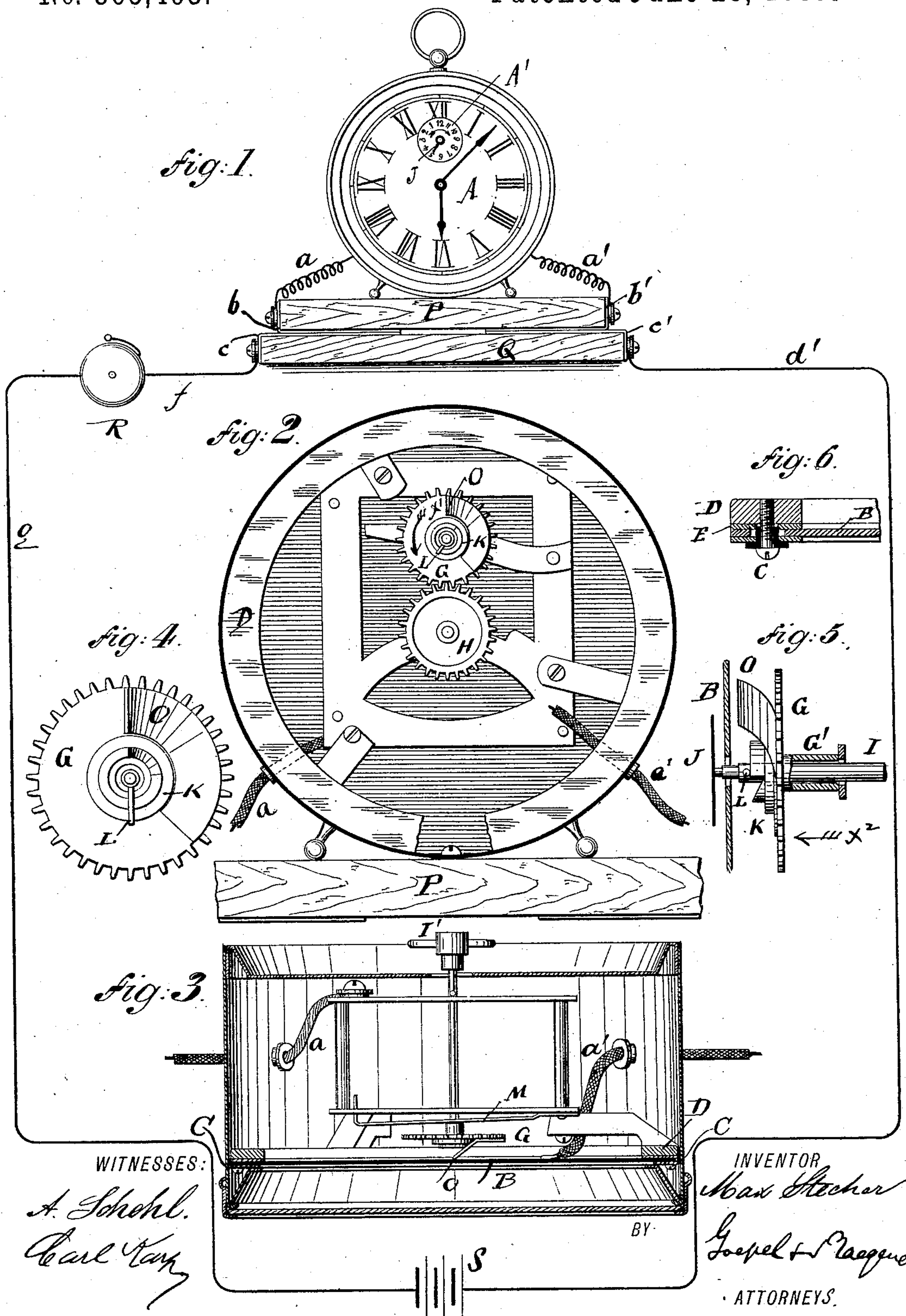


(No Model.)

M. STECHER.
ELECTRIC ALARM CLOCK.

No. 365,493.

Patented June 28, 1887.



UNITED STATES PATENT OFFICE.

MAX STECHER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES WIEGMANN, OF SAME PLACE.

ELECTRIC ALARM-CLOCK.

SPECIFICATION forming part of Letters Patent No. 365,493, dated June 28, 1887.

Application filed March 18, 1887. Serial No. 231,350. (No model.)

To all whom it may concern:

Be it known that I, MAX STECHER, of the city and county of Philadelphia, State of Pennsylvania, have invented certain new and useful
5 Improvements in Electric Alarm-Clocks, of which the following is a specification.

This invention relates to certain new and useful improvements in alarm-clocks; and the object of my invention is to provide an alarm-
10 clock which can easily be connected with an electric apparatus or detached from the same, the alarm mechanism being operated by electric device.

The invention consists in the combination,
15 with a clock having an electric circuit-closing device, of a base having contact-pieces connected with said circuit-closing device and a block having contact-pieces connected with a bell and battery.

20 The invention also consists in the construction and combination of parts and details, as will be fully described, and set forth hereinafter.

In the accompanying drawings, Figure 1 is
25 a face view of my improved alarm-clock, its base, the block carrying the contact-piece, and the line-wires. Fig. 2 is a face view of the front part of the works, parts being broken out and others being in section. Fig. 3 is a
30 sectional plan view of the clock. Fig. 4 is an enlarged detail view of the wheel carrying the contact-piece. Fig. 5 is a side view of the same, parts being broken out and others in section. Fig. 6 is an enlarged detail view,
35 showing the manner of insulating the dial.

Similar letters of reference indicate corresponding parts.

The dial A, made of paper, is fastened on a metal plate, B, or can be produced directly on
40 the face of said metal plate. Said plate B is fastened by means of the insulating-screws C on the frame D of the works, a ring, E, of insulating material, being interposed between the dial and the frame. The hour-wheel G,
45 driven from the cog-wheel H, is mounted loosely on the shaft I, carrying on its front end a hand, J, which indicates the hour for which the clock has been set on the small dial A' on the large dial A in the usual manner.
50 At the rear end the shaft I is provided with a handle or knob, I', for setting it in the usual

manner. The usual cam, K, is formed on the front of the wheel G, and its track is pressed against a pin, L, projecting from the shaft I by a spring, M, acting on the rear end of a
55 sleeve, G', on the wheel G. A contact-spring, O, projects from the face of the wheel G, and I thus obtain a rotative contact-piece—that is, a contact-piece that can come in contact with the different parts of the back of the dial. 60
The works are connected by wire *a* with the contact-plate *b* on one end of the under side of the base-plate P, upon which the clock rests. The dial is connected by the wires *a*, with the contact-piece *b'* on the opposite end and bot- 65
tom of the base P. On each end and on the top of the supporting-block Q contact-plates *c c'* are fastened, of which the latter is connected by the wire *d'* with the battery S, and the contact-piece *c* is connected by the wire *f'* 70
with the electric bell R, which is in turn connected by the wire *g* with the battery S. As shown in Fig. 5, the spring O is not in contact with the back of the dial-plate B, and thus the circuit is not closed and the alarm not 75
operated. As the wheel G continues to revolve in the direction of the arrow *x'*, Fig. 2, the end of the cam (shown in Fig. 5) slides off the pin J, thus permitting the spring M to throw the sleeve G' and wheel G in the direc- 80
tion of the arrow *x''*, Fig. 5, whereby the end of the spring O is brought in contact with the back of the dial-plate B, and the circuit is closed, and the bell R continues to ring as long as the circuit is closed—that is, until the 85
clock and its base P are lifted off the block Q; or the alarm will ring for one hour—that is, until the hour-wheel has turned one-twelfth of its circumference.

In place of connecting the entire works with 90
the conducting-wire, the wheel G can be insulated, and the wire *a*, instead of being connected with the works, can be connected with a spring which is continuously in contact with the wheel G, and over which said wheel 95
G slides as it revolves.

It is evident that this clock can be set for any desired hour, the same as an ordinary alarm-clock.

When the clock is removed from the block 100
Q, it can be used as an ordinary time-piece.

No changes in the construction of the clock

are required other than insulating the dial and providing the spring O on the wheel G.

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

5 Patent—

1. The combination, with a clock having an automatic circuit-closing device, of a base on which the clock is fixed, contact-pieces on the base, wires connecting the circuit-closing
10 device with the contact-pieces, a block on which the base rests, contact-pieces on said plate, and an electric battery and bell connected with the contact-pieces of said block, substantially as shown and described.

15 2. A clock constructed with a shaft having a pin, a sleeve mounted to slide on said shaft, a spring acting on said sleeve, a wheel on the sleeve, a cam on the face of the wheel, which cam rests against the above-mentioned pin,
20 and a contact piece or spring on said wheel, substantially as shown and described.

3. In a clock, the combination, with the ordinary works, of a shaft carrying a hand, a pin on said shaft, and a sleeve mounted to slide on said shaft, a spring acting on said
25 sleeve, a cog-wheel on the sleeve, a cam on said wheel, which cam rests against the above-mentioned pin, a contact piece or spring on said wheel, said wheel being electrically connected with a contact piece on a base, and a plate
30 against which said contact-spring on the wheel can be pressed, and which plate is also connected electrically with a contact-piece on the base, substantially as shown and described.

In testimony that I claim the foregoing as
35 my invention I have signed my name in presence of two subscribing witnesses.

MAX STECHER.

Witnesses:

WM. F. LUTZ,
MAX KUTTNER.