

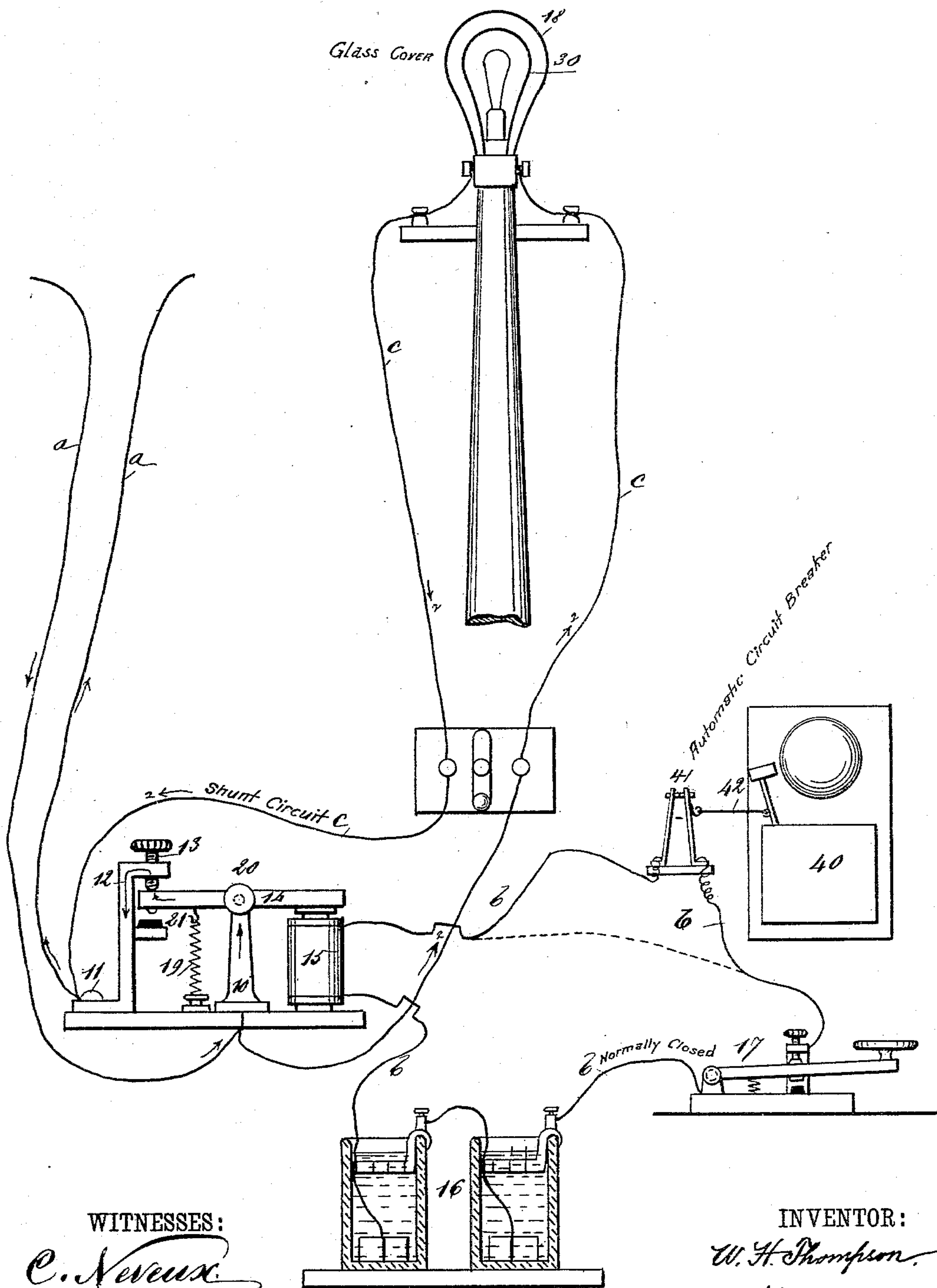
(No Model.)

W. H. THOMPSON.

FLASH LIGHT SIGNAL.

No. 387,932.

Patented Aug. 14, 1888.



WITNESSES:

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INVENTOR:

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# UNITED STATES PATENT OFFICE.

WILLIAM HENRY THOMPSON, OF RICHMOND, VIRGINIA.

## FLASH-LIGHT SIGNAL.

SPECIFICATION forming part of Letters Patent No. 387,932, dated August 14, 1888.

Application filed April 19, 1887. Renewed June 28, 1888. Serial No. 278,461. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY THOMPSON, of Richmond, in the county of Henrico and State of Virginia, have invented  
5 a new and Improved Flash-Light Signal, of which the following is a full, clear, and exact description.

The object of this invention is to provide a  
10 simple and efficient visual signaling apparatus that shall be applicable for use in the transmission of fire-alarm or police signals; and to the end named the invention consists in the construction, arrangement, and combination of parts, as will be hereinafter more  
15 fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which my improved signaling apparatus is  
20 represented in diagram, an automatic and a hand signal-operating device being shown in connection with the lamp.

The letters *a a* indicate the wires of a regular fire-alarm circuit. They are shown connected respectively with the post 10 and  
25 binding-screw 11 of an instrument similar to an ordinary relay, but which, in view of its function, I will term the "main-circuit breaker." From the points 10 and 11 the  
30 circuit is extended by wires *c c* to an incandescent lamp, 30, having a protecting-globe, 18. The current does not normally pass through this lamp, but is short-circuited through the instrument 20—that is to say, it  
35 passes from binding-screw 11 through post 12 to its contact-point 13, against which an armature-lever, 14, is held by the action of a magnet, 15, the armature-lever 14 being supported by the post or standard 10, so that  
40 when the magnet 15 is in action and the armature-lever in the position in which it is shown in the drawing the current will pass through the post 10, the lever 14, the contact-point 13, and the post or standard 12.

45 The coils of the magnet 15 constitute part of a closed local circuit formed by wires *b*, through battery 16, and breaking-key 17.

Such being the general construction of the signal apparatus, the operation is as follows:  
50 When the current is passing over the main line *a*, it will pass through the main-circuit breaker 20, as before described, when the

parts are in the position in which they are shown in the drawing; but if the key 17 be manipulated so as to break the circuit *b* the  
55 magnet 15 will be discharged and a spring, 19, that is connected to the armature-lever, will act to move said lever from engagement with the contact 13, the lever being drawn downward against a piece of insulating material, 60  
21, that is supported by the post or standard 12, and then the current necessarily has to pass through the extended circuit *c* and the lamp 30 will be illuminated; but immediately upon  
65 the closing of the key 17 the current will be discharged and the lamp will be extinguished.

From the above description it will be seen that by the use of a prearranged code of signals—such as the one at present employed in the fire-alarm system—a signal indicating the  
70 exact location of a fire or a signal communicating any desired information may be displayed.

In order that the signal may be made automatic in its action, it might be connected with  
75 a gong, 40, through the medium of a circuit-breaker, 41, one arm of said circuit-breaker being connected to the supporting-arm of the gong by a connecting-rod, as 42, so that when a signal is rung upon the gong the current  
80 will be correspondingly broken at the breaker 41 and the signal will be flashed by the light 30.

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

1. The combination, with the main fire-alarm circuit *a a*, of the main circuit-breaker 20, forming a shunt, the extended circuit *c c*, the incandescent lamp 30 included in the latter,  
90 the local circuit, and the breaking-key 17, all connected and operating substantially as described, and for the purpose set forth.

2. The combination of the automatically-operated gong 40, the automatic circuit-  
95 breaker 41, and rod 42 connecting them with the local circuit *b b*, main-circuit breaker 20, main circuit *a a*, extended main circuit *c c*, and incandescent lamp 30, all as shown and described.

WILLIAM HENRY THOMPSON.

Witnesses:

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