

(No Model.)

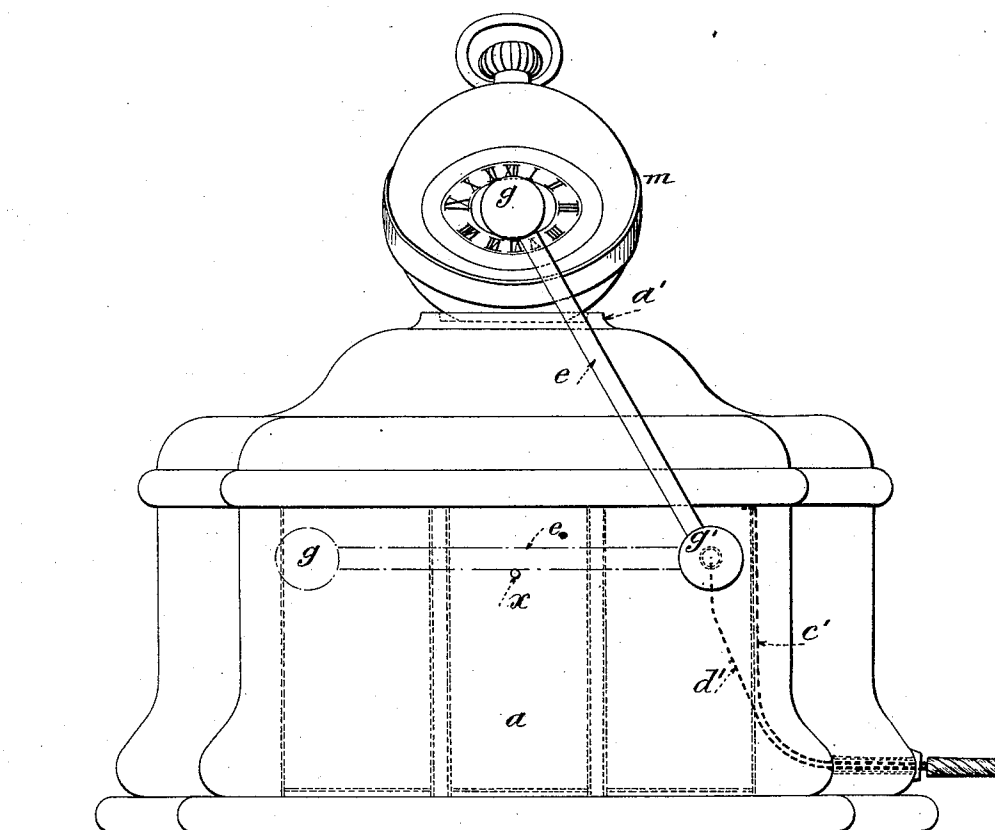
2 Sheets—Sheet 1.

B. HAAS, Jr. & G. TROUVÉ.
ILLUMINATED TIMEPIECE.

No. 486,563.

Patented Nov. 22, 1892.

FIG. 1.



Witnesses.
Thomas P. Simpson.
Robt. Aiton.

Inventors
Benjamin Haas Jr.
& Gustave Trouvé
by Wm H. Babcock
Attorney

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FIG. 2. Patented Nov. 22, 1892.

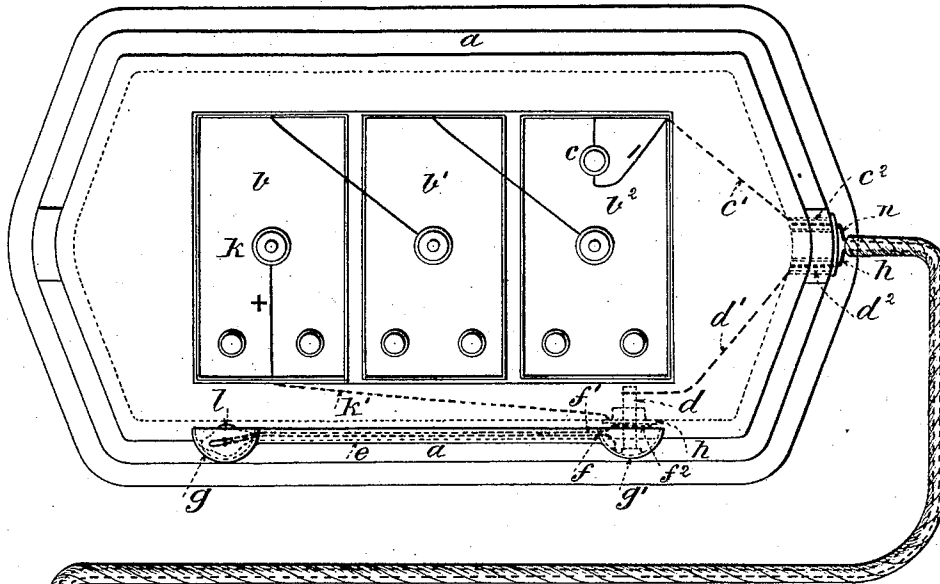


FIG. 3.

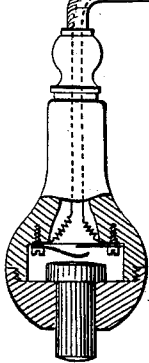


FIG. 4.

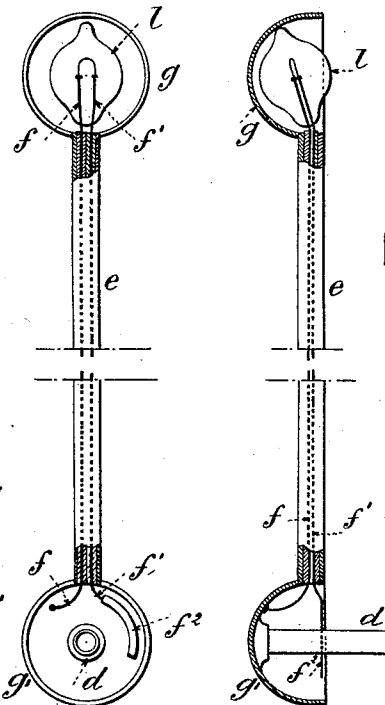
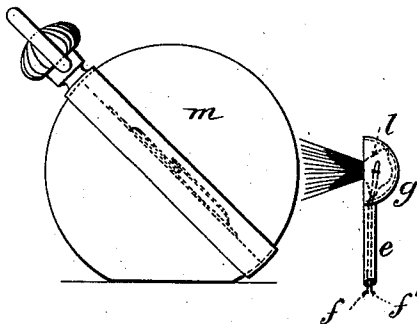


FIG. 3^a

Witnesses.
Thomas P. Simpson
Robt. Aiton.

Inventors.
Benjamin Haas Jr.
and Gustave Trouvé
by Wm H Babcock
Attorney

UNITED STATES PATENT OFFICE.

BENJAMIN HAAS, JR., AND GUSTAVE TROUVÉ, OF PARIS, FRANCE.

ILLUMINATED TIMEPIECE.

SPECIFICATION forming part of Letters Patent No. 486,563, dated November 22, 1892.

Application filed November 9, 1891. Serial No. 411,332. (No model.) Patented in France September 17, 1891, No. 217,013.

To all whom it may concern:

Be it known that we, BENJAMIN HAAS, JR., and GUSTAVE TROUVÉ, citizens of the Republic of France, residing in the city of Paris, in the said Republic, have invented certain new and useful Means for Illuminating the Dials of Timepieces, (for which we have obtained a patent in France, No. 217,013, dated September 17, 1891,) of which the following is a full, clear, and exact specification, reference being had to the accompanying drawings, making part of the same.

The object of the said invention is to provide a watch, clock, or other timekeeper with a movable device whereby at will on the closing of an electric circuit the face or dial of the said timepiece will be illuminated to show the time of night, the battery which generates the electricity being inclosed in a case, which serves as a support for the said timepiece or is attached thereto and removable therefrom.

To this end the said invention consists in the construction and combination of parts herein-after more particularly set forth and claimed.

In the accompanying drawings, Figure 1 represents a front elevation of a watch-supporting casing, the watch, and the external part of the electrical devices embodying our invention. Fig. 2 represents a plan view of the said casing and inclosed devices, the casing-cover and watch being removed. Figs. 3 and 3^a represent detail views of the electric lamp and lamp-supports, partly in elevation and partly in section, taken at right angles to each other. Fig. 4 represents a detail view of the watch used therewith.

The battery, consisting of cells $b\ b'\ b^2$, but for which a single cell or any convenient number of cells may be substituted, is inclosed within a casing a , of any convenient size, material, or form. On this casing, as shown in Fig. 1, a watch m of any desired kind is mounted. An electric lamp l when turned into position before the dial of this watch and lighted, illuminates the said dial for the purpose stated, and is provided with a small reflector g to intensify its light. The said lamp and reflector are supported by a tubular arm e , having its lower end shaped into a nearly-hemispherical shell g' , resembling the said reflector and having a rigid pivot-stud d , inte-

gral with the said arm, extending horizontally from the center of the said shell. The filament or incandescent wire f of the said lamp is connected to wires $f' f^2$, which are extended downward, with insulating-coatings $z\ z'$ side by side within the said tubular support, the wire f' being connected at its lower end to the shell g' and the wire f^2 to a curved insulated spring-plate f^3 , which is continually yielding contact with a plate h , fixed to the casing a . From this plate h a wire k' extends to one of the poles k of the battery. From the pivot-stud d a wire d' extends to the inner end of a conducting tube or rod d^2 , fixed in the said casing. A second and similar rod or tube c^2 is fixed in the said casing in proximity to the above-mentioned one and connected in like manner by a wire c' to the other pole c of the said battery. From these tubes or rods $c^2\ d^2$ wires $n\ n'$, suitably wrapped, extend outward into a hanging knob p , provided with a push-rod p' , operated after the manner of the ordinary push-button to close the circuit by pressure. When thus closed, the circuit is from pole k , through wire k' , to fixed plate h , thence through plate f^3 , wire f^2 , filament f , wire f' , shell g' , pivot d , wire d' , tube d^2 , wires $n' n$, tube c^2 , and wire c' to the other pole c of the battery. The pivot-stud or axis d is mounted in the casing a and allows the tubular support e to be freely turned up so as to present the lamp l in front of the watch-dial or turned down into the position shown in dotted lines in Fig. 1. The yielding yet resilient character of the plate f^3 maintains the electrical connection at this point whatever the position of the lamp and its support. When the operator desires to know the time, he turns up the lamp into position before the watch and presses the push-rod p' . Afterward he relaxes this pressure and turns the lamp down to its former position. It is then out of use and out of the way. A stop x is provided on the front of the said case to prevent the said tubular support and lamp from being turned down too low. The watch m is preferably held in a recessed seat or watch-holder a' , formed on the top of the cover of the casing a . Of course a clock or other timepiece may be substituted.

Having thus fully set forth our invention,

what we claim as new, and desire to secure by Letters Patent, is—

A timepiece provided with a supporting-casing and an electric battery inclosed in the said casing, in combination with an electric lamp operated by the said battery, a pivoted tubular supporting-arm *e* for said lamp, having a shell *g'* formed at its lower end and provided with a pivot-stud *d*, a fixed contact-plate *h*, electric conductors making connection through the said lamp respectively to the

said shell and pivot-stud and to the said plate, and additional conductors extending from said plate and said stud to the poles of the battery, substantially as set forth.

In witness whereof we have hereunto set our hands in presence of two witnesses.

BENJAMIN HAAS, JR.
GUSTAVE TROUVÉ.

Witnesses:

A. HUBAM,
GEORGE LAURENT.