(No Model.)

J. W. CLOUD.

WATCH.

No. 414,190. Patented Nov. 5, 1889.

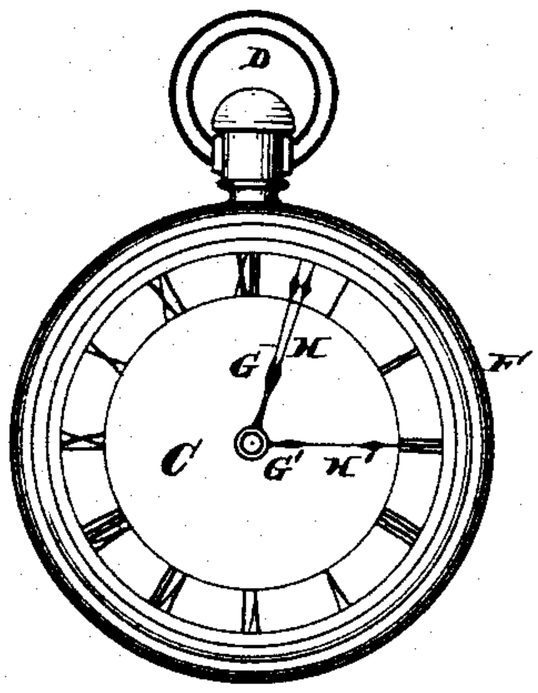

Fig. 1

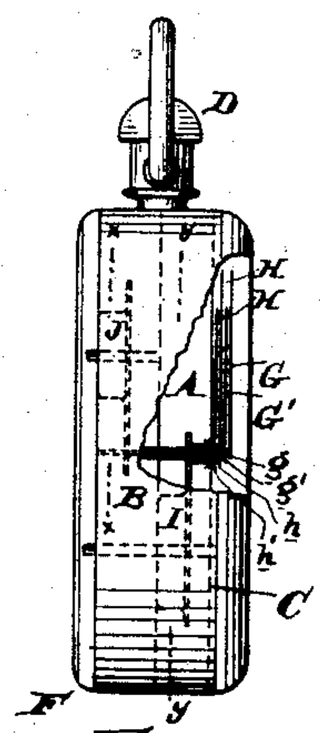

Fig. 2

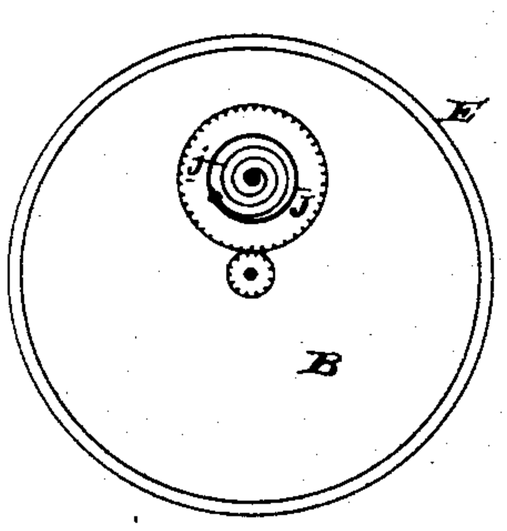

Fig. 3

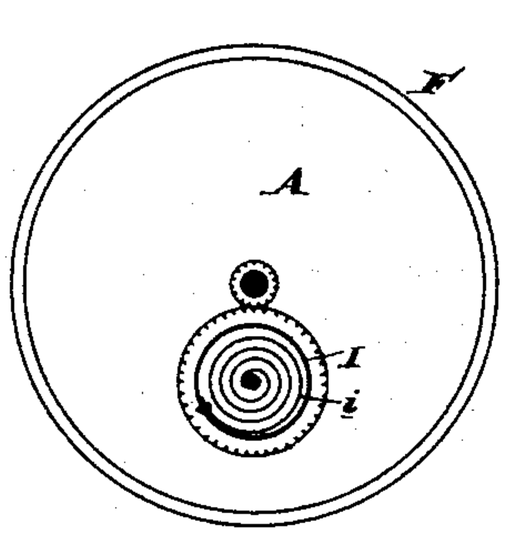

Fig. 4

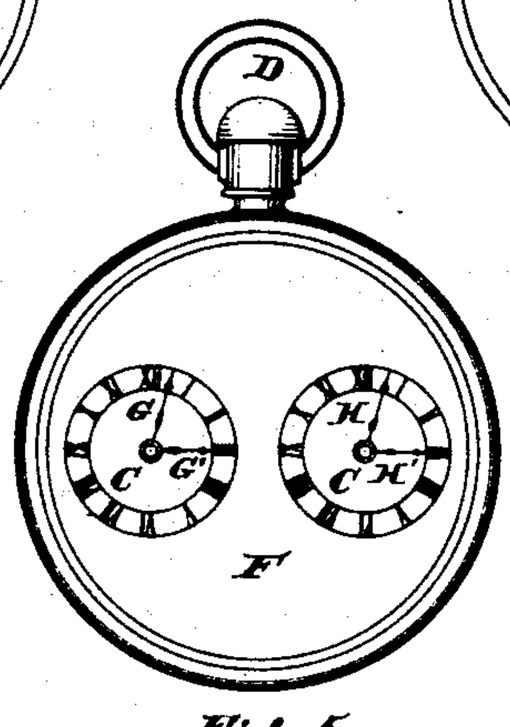

Fig. 5

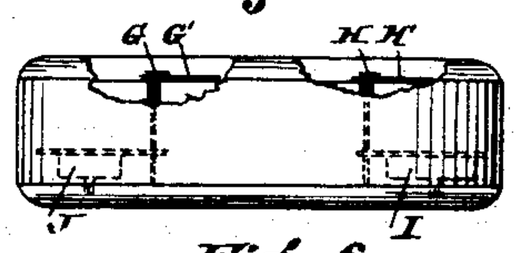

Fig. 6

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JOHN W. CLOUD, OF BUFFALO, NEW YORK.

WATCH.

SPECIFICATION forming part of Letters Patent No. 414,190, dated November 5, 1889.

Application filed May 4, 1888. Serial No. 272,863. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. CLOUD, of Buffalo, county of Erie, State of New York, have invented a new and useful Improvement in Watches, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the construction of watches, and has for its object to provide locomotive-engineers, railway-conductors, and others to whom a knowledge of the correct time is of great importance with a compact watch containing two entirely independent watch-movements arranged so that the time indicated by each will simultaneously come before the eye when the watch is consulted.

Another object which I have in view is to provide against the carelessness or forgetfulness of the owner as to the winding of the watch, and this I accomplish by providing the two independent watch-movements with driving mechanism of unequal power, so that the life or running time of the one movement will be substantially longer than that of the other, as the result of which the owner will be warned by the stoppage of one movement of his forgetfulness, while at the same time he will be enabled to know the time with ordinary accuracy owing to the continued operation of the other movement.

Reference is now had to the drawings which illustrate my invention, and in which—

Figure 1 is a face view of my improved watch; Fig. 2, an edge view of the same, partly in section and with the two movements indicated by dotted lines; Fig. 3, a view of the mainspring and drum of one movement on the line *x x* of Fig. 2; Fig. 4, a view of the mainspring and drum of the other movement on the line *y y* of Fig. 2; and Figs. 5 and 6 are respectively face and edge views of a modified construction.

F indicates the watch-case which I prefer to employ. It is like an ordinary watch-case, except that it is made deeper, in order to contain two watch-movements—one superimposed upon the other.

D is the ordinary handle or chain-ring of the watch-case.

A and B indicate, respectively, the two independent watch-movements.

C indicates the dial of the watch.

G and G′ indicate the minute and hour hands actuated by the one watch-movement B, while H and H′ indicate the corresponding hands of the watch-movement A. As shown in the drawings, these hands all turn around the same center, this being rendered practicable by making the spindles or shafts *h h′*, on which the hands of movement A are secured, hollow and of sufficient internal diameter to permit the shafts or spindles *g g′*, on which the hands of movement B are secured, to pass through them, as is shown on Fig. 2. By this construction the hands of both movements indicate the time upon a single dial. The minute and hour hands of each movement should move together, and if they do not the owner on looking at the watch cannot fail to see that one movement or the other is not keeping correct time, and he is thus notified to exercise caution and ascertain the true time at the first opportunity, while if he sees no divergence between the hands of the two movements he is justified in feeling great certainty that the time indicated is correct.

J indicates the drum and *j* the mainspring of the movement B, while I and *i* indicate the drum and mainspring of the movement A. As shown in Figs. 3 and 4, the spring *j* is smaller than the spring *i*, these figures being intended simply as diagrams to illustrate to the eye that the driving-power of the one movement should be greater than that of the other. From such a construction of course it follows that the one movement will run longer than the other, so that, as I have before stated, the owner will be notified of his forgetfulness in winding the watch by the stoppage of only one of the two movements.

It will of course be evident that the two described features of my invention are capable of separate as well as conjoint use, the device of securing two movements of unequal life in a single watch-case being, for instance, applicable to a construction such as is indicated in Figs. 5 and 6, where the two movements are placed side by side and indicate the time upon two separate dials, instead of upon a single dial, as heretofore described.

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

1. The herein-described improvement in watches, consisting of a single casing containing two independent watch-movements having driving-springs of unequal power and life, all substantially as and for the purpose specified.

2. As an improvement in watches, the combination, with a single casing, of two independent watch-movements secured one beneath the other in said case and having their hands arranged to revolve around a single center and indicate the time on a common dial, all substantially as and for the purpose specified.

3. As an improvement in watches, the combination, with a single casing, of two independent watch-movements, each having driving-springs of unequal power and life, said movements being secured one beneath the other in said case and having their hands arranged to revolve around a single center and indicate the time on a common dial, all substantially as and for the purpose described.

JNO. W. CLOUD.

Witnesses:
A. G. THOMASON,
H. E. J. STORY.