

G. McNAUGHTON & W. H. FITZ GERALD.

Stem-Winding Watches.

No. 155,097.

Patented Sept. 15, 1874.

Fig. 1.

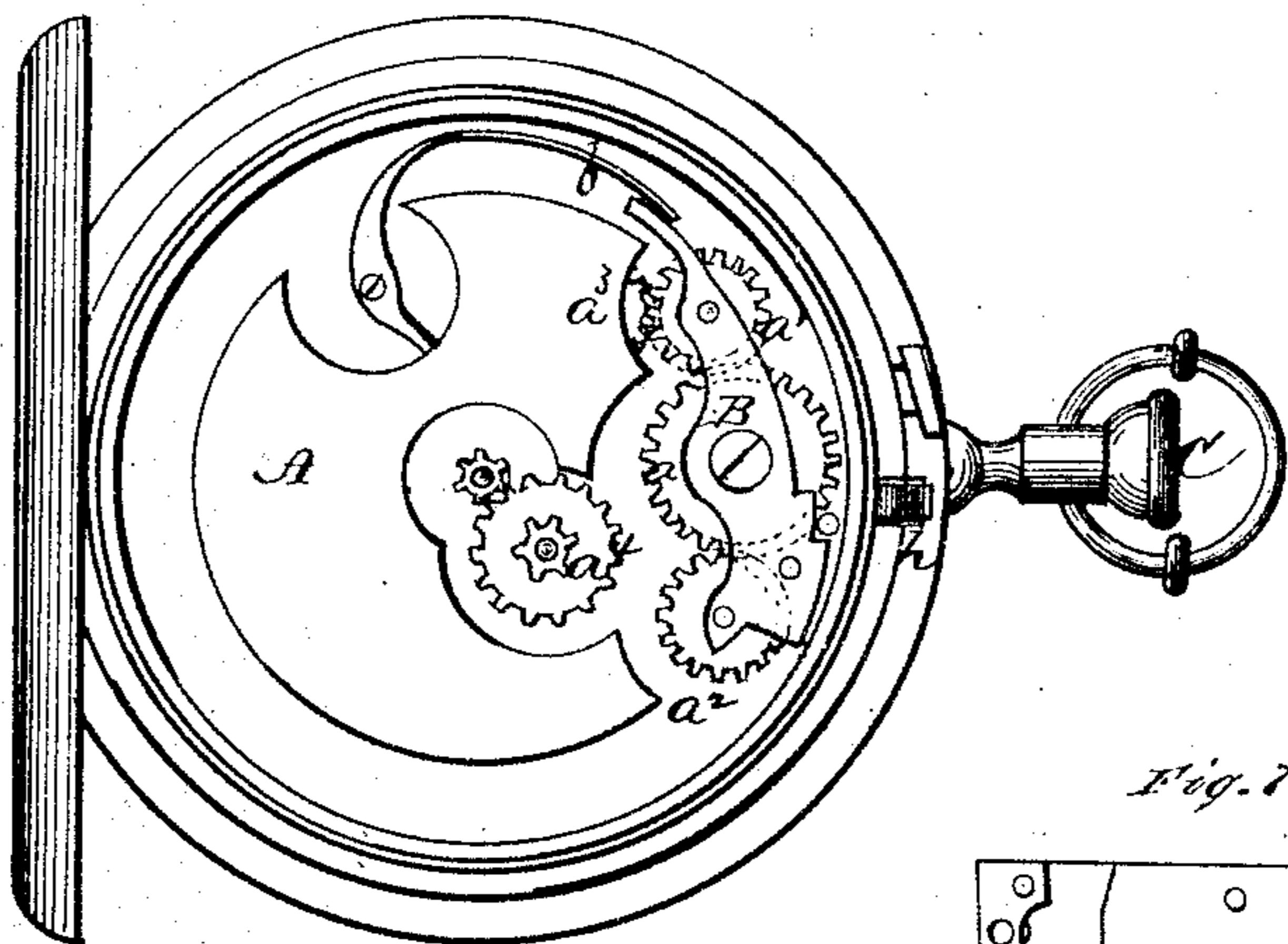


Fig. 7.



Fig. 6.

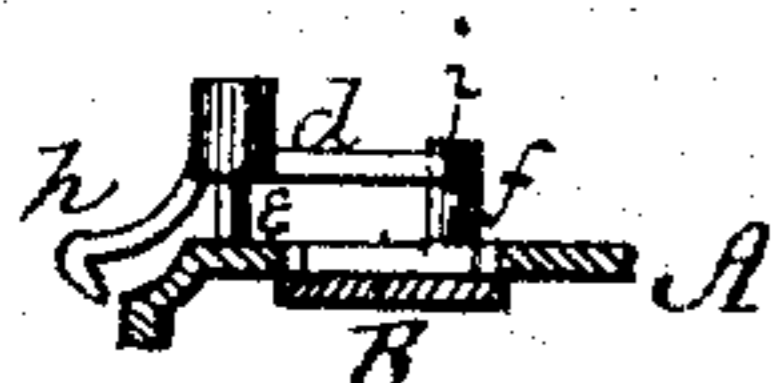


Fig. 2.

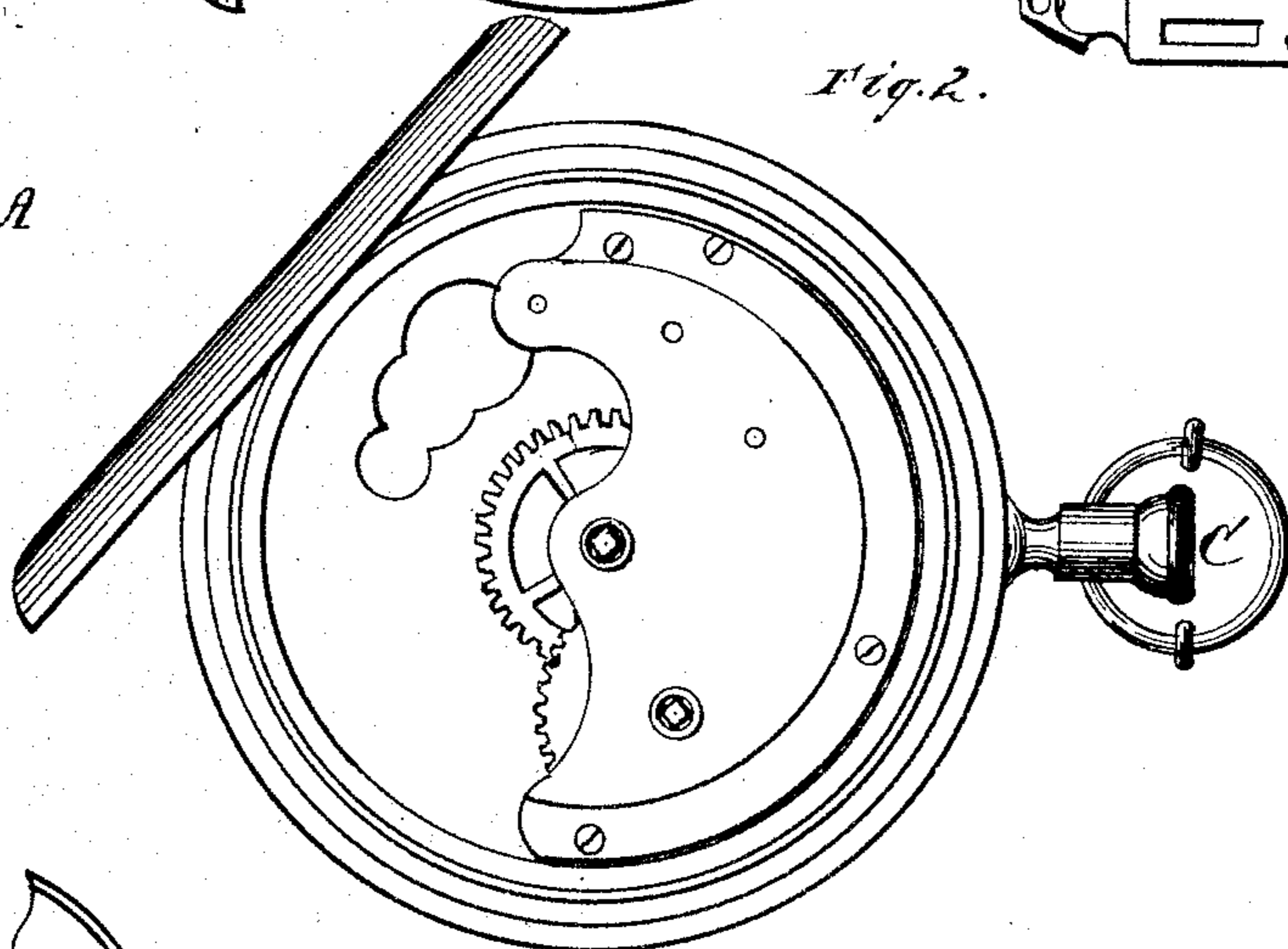


Fig. 4.

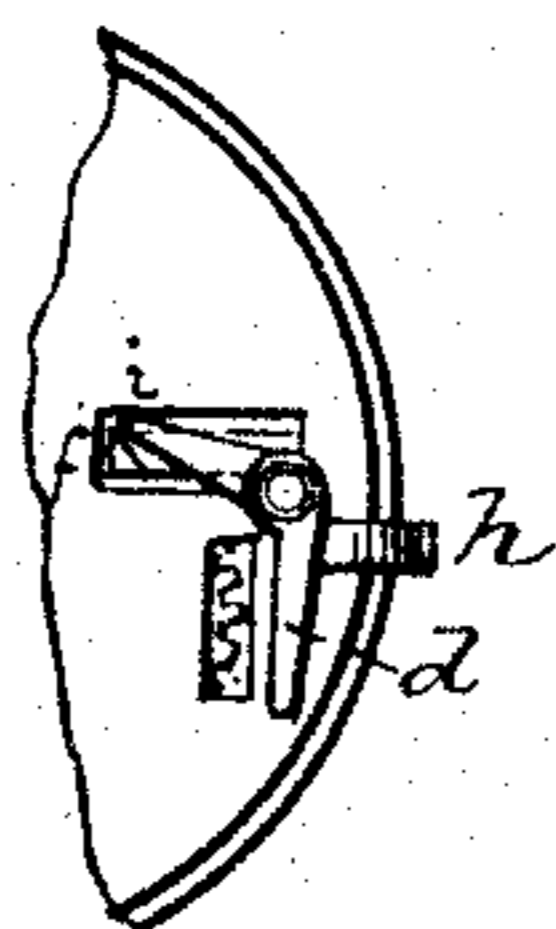


Fig. 3.

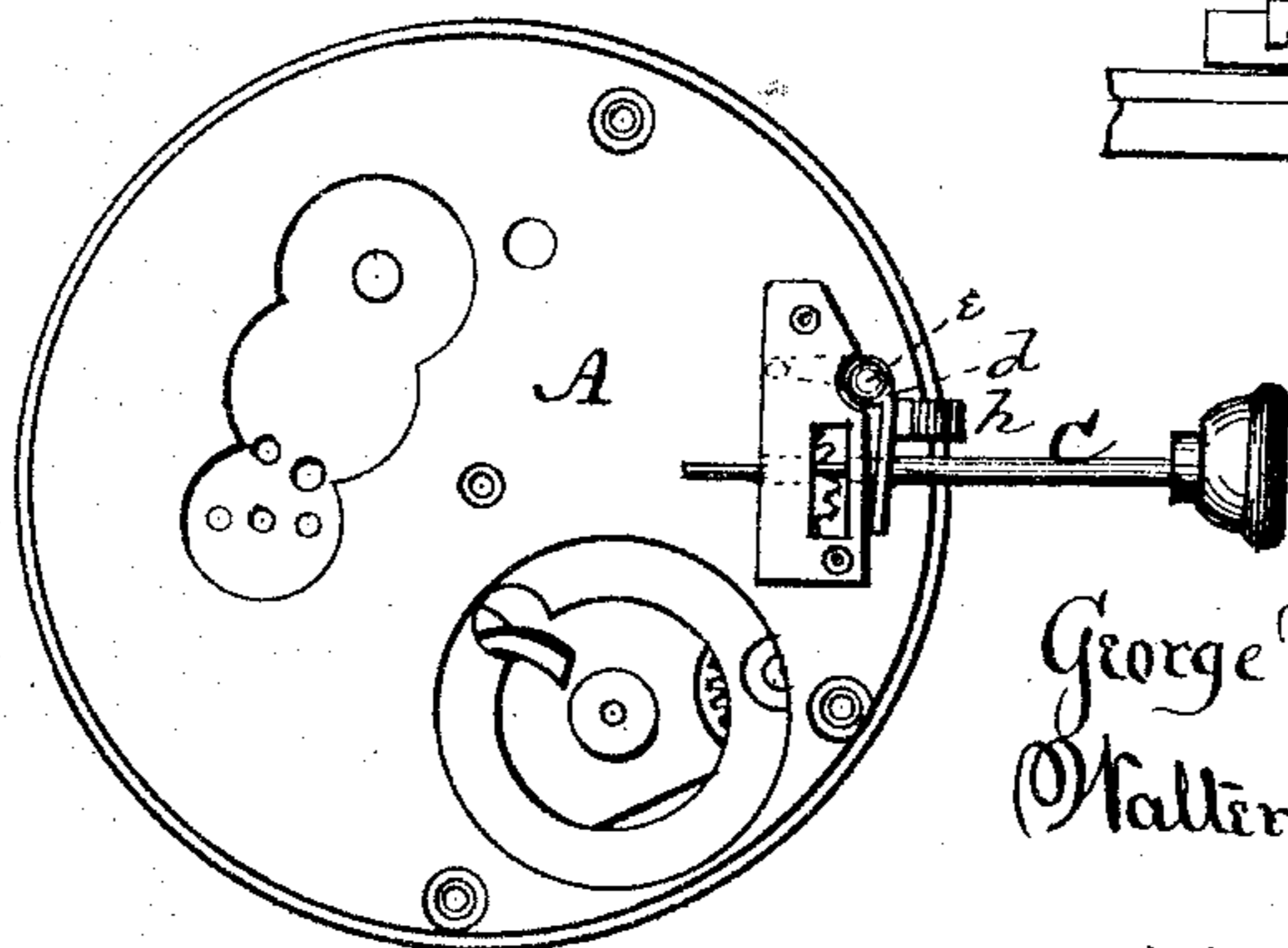
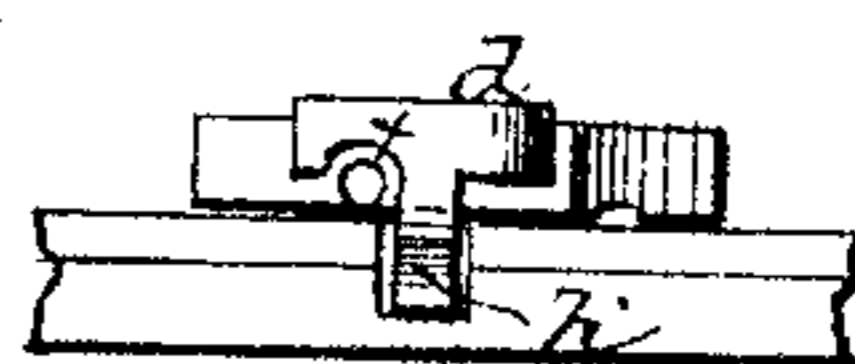


Fig. 5.



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# UNITED STATES PATENT OFFICE.

GEORGE McNAUGHTON AND WALTER H. FITZ GERALD, OF BROOKLYN, NEW YORK, ASSIGNORS TO THEMSELVES AND CHRISTIAN L. HINES, OF SAME PLACE.

## IMPROVEMENT IN STEM-WINDING WATCHES.

Specification forming part of Letters Patent No. **155,097**, dated September 15, 1874; application filed July 25, 1874.

*To all whom it may concern :*

Be it known that we, GEORGE McNAUGHTON and WALTER H. FITZ GERALD, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Stem - Winding Watches; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to that class of watches known as stem - winding watches; and it consists particularly in the construction and arrangement of the hand-set, and also in the combination of parts, as will be hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a front view of the main plate of the watch. Fig. 2 is a view of the back plate. Fig. 3 is a rear or bottom view of the main plate, and Figs. 4, 5, 6, and 7 are detached views of certain parts thereof.

A represents the main plate of the watch, on the upper side of which is pivoted a plate, B, carrying the gear-wheels  $a$ ,  $a^1$ , and  $a^2$ . This plate is held by means of a spring,  $b$ , so that the wheel  $a^1$  will be in gear with the wheel  $a^3$  on the mainspring-arbor for winding up the spring.

When the plate B is moved or turned on its pivot the wheel  $a^1$  is thrown out of gear with the wheel  $a^3$ , and the wheel  $a^2$  is thrown in gear with a wheel,  $a^4$ , which communicates with the hands of the watch.

On the under side of the main plate A is fastened a right-angled lever,  $d$ , with an adjustable screw,  $e$ , on its center, and a cavity,  $x$ , on its outer end to receive the stem or winding-arbor C. The adjustable screw  $e$  allows the lever  $d$  to be put into working position, and also allows of the removal of the stem at pleasure, as it is necessary, as with

all other stem-winding watches, to withdraw the stem to allow the movement to be taken from the case. The lever  $d$  is, on its inner end, provided with a cam-face,  $i$ , which meets the cam-face of a stud,  $f$ , placed upon the plate or spring B of the stem-winding mechanism of the movement.

The operation is to slightly draw the winding-stem C outwardly, at the same time giving the stem a little side turn, which places the cams in set position, causing the plate B to turn on its pivot, and the hand-set wheels  $a^2$   $a^4$  to be put in gear, and thus enabling the setting of the watch at pleasure.

It is, of course, understood that a portion of the stem C is square, and passes through a bevel-gear wheel, which meshes with a similar wheel on the side of the wheel  $a$ , and that, by pulling outwardly on the stem, the shoulder of said square part comes in contact with the lever  $d$  at the cavity  $x$ , so that the lever will be pulled or turned thereby.

When in its normal position the cavity  $x$  of the lever fits in a circumferential groove on the stem, immediately at the outer end of the square part.

On the top of the lever  $d$  is an arm,  $h$ , which is of suitable length to project over the rim of the case, as shown in Fig. 2, so that in closing the case the back touches it, which at once disconnects the hand-setting gear, and puts the winding-gear in proper position, and positively prevents the setting of the watch as long as the front of the case remains closed.

This device can be placed on any ordinary stem-winding watch, and may be placed upon either the upper or under side of the main plate, involving very little additional expense, and affording a cheap, durable, and easily-operative hand-set.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In combination with the pivoted plate B, with its gear-wheels and the spring  $b$ , the

right-angled lever  $d$ , with cam-face  $i$ , and the cam-stud  $f$  on the plate B, substantially as and for the purposes herein set forth.

2. The combination of the right-angled lever  $d$ , having cam-face  $i$ , the cam-stud  $f$ , and the arm  $h$  for controlling the setting and winding mechanism, substantially as herein set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

GEO. McNAUGHTON.

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