

George Fredric Roskopf's Escapement for Watches.
assigned to Self & J. D. N. Villlemier

75463

Fig. 1.

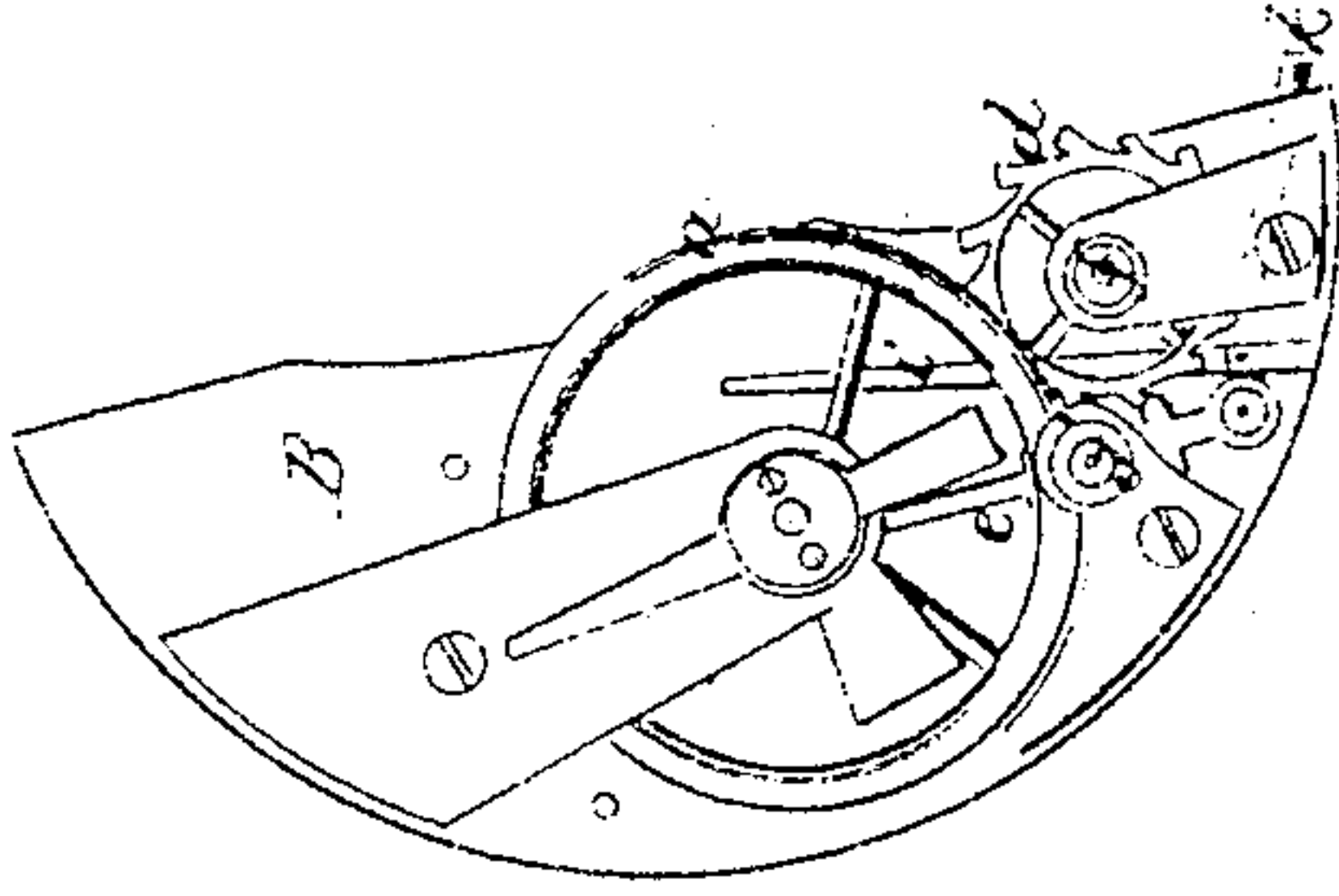


Fig. 2.

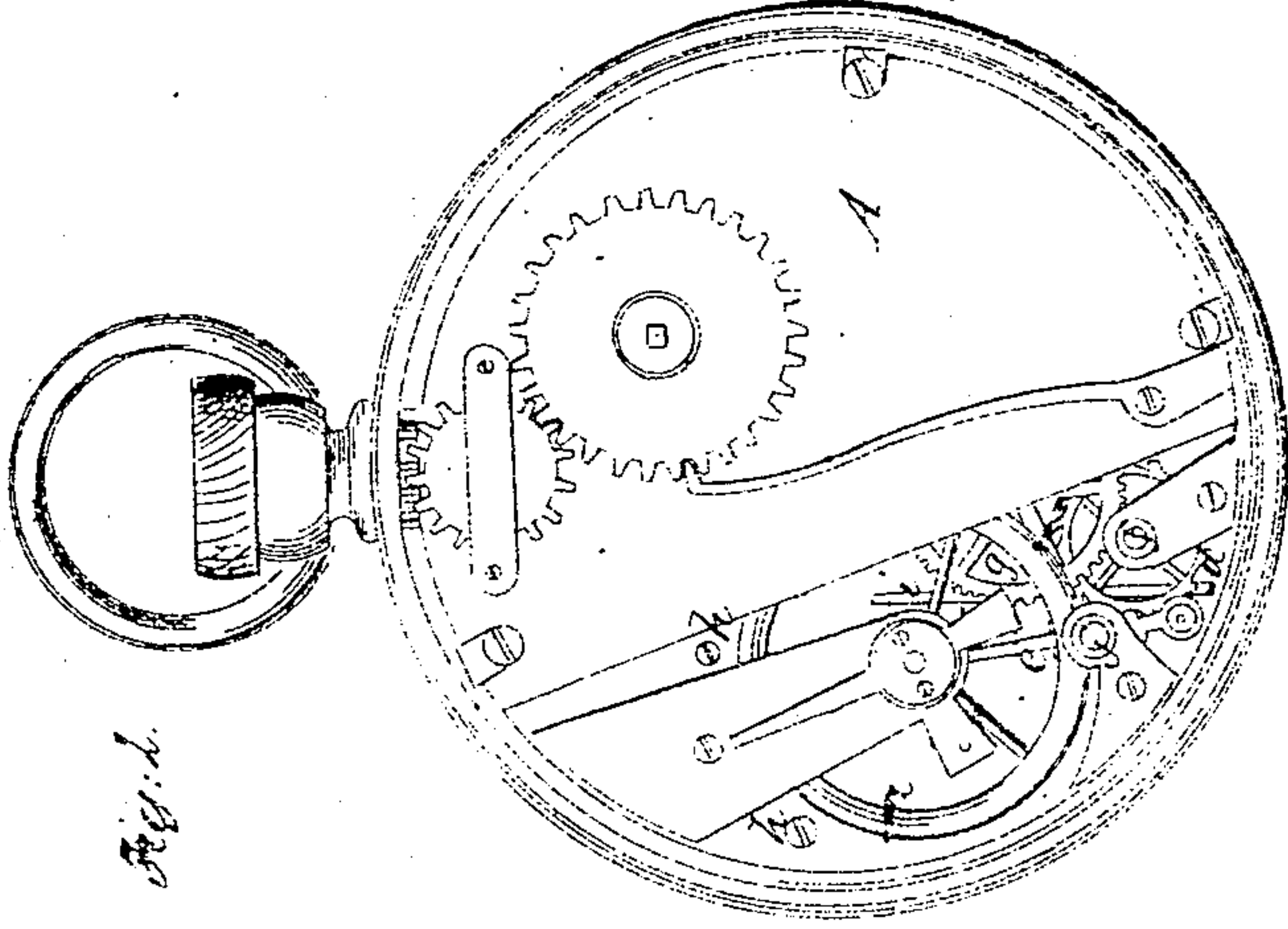
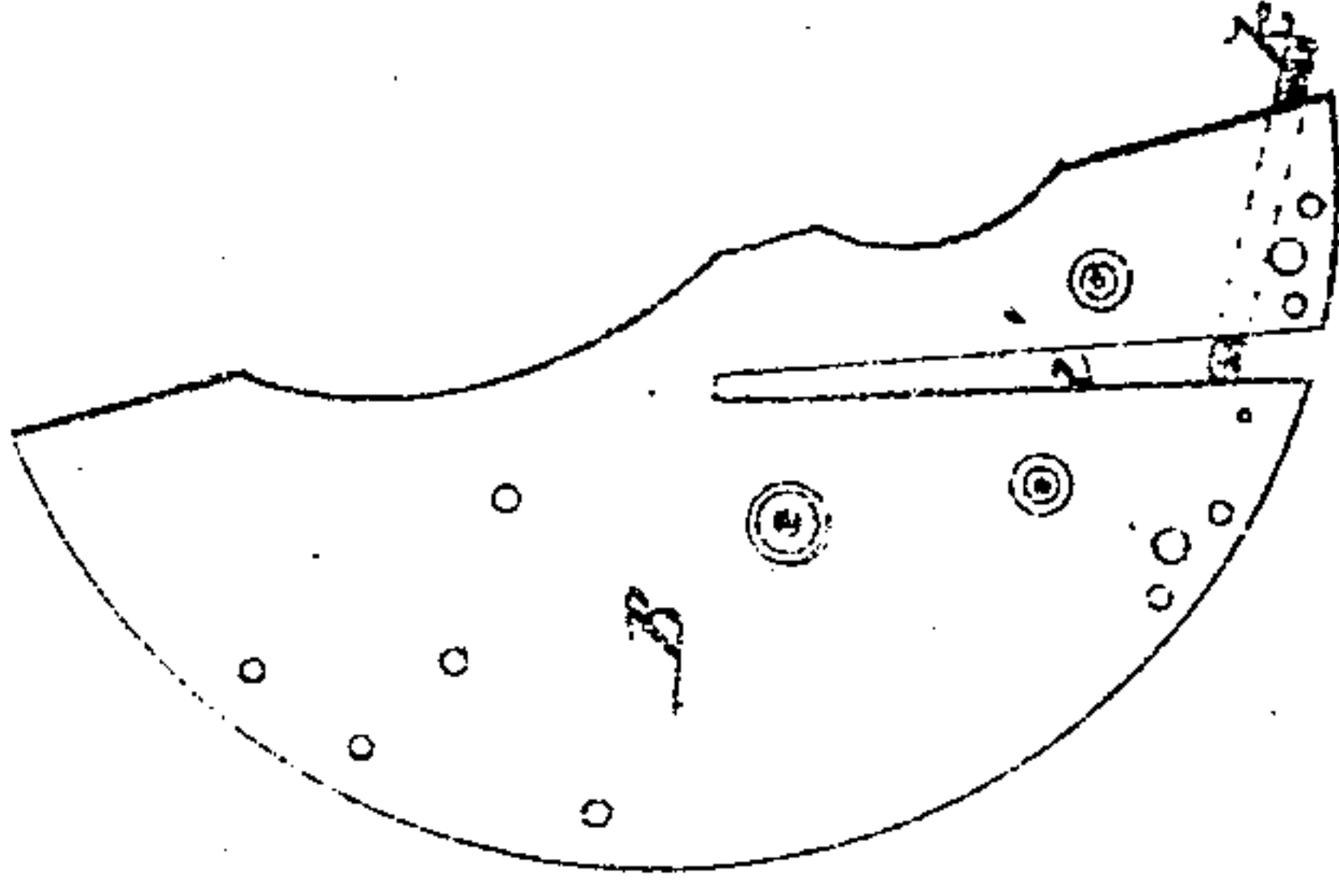


Fig. 3. PATENTED

MAR 10 1868



Witnesses.

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GEORGE FREDERIC ROSKOPF, OF CHAUX DE FONDS, SWITZERLAND, ASSIGNOR TO HIMSELF AND JULES D. HUGUENIN VUILLEMIN, OF NEW YORK CITY.

Letters Patent No. 75,463, dated March 10, 1868.

IMPROVEMENT IN CHANGEABLE ESCAPEMENT FOR WATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE FREDERIC ROSKOPF, of Chaux de Fonds, Switzerland, have invented a new and useful Improvement in Watches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates to a new and useful improvement in the construction of watches, and consists in having that portion of the mechanism of a watch which is known as the "escapement," fitted or attached to a plate or frame separate from the frame in which the "train" or other portion of the movement is fitted; the plate or frame, to which the escapement is fitted, being attached to the frame of the "train" in such a manner that it may be readily detached when necessary, and any of the known escapements, on a similar detachable plate or frame, fitted or applied to the other portion of the movement.

The invention further consists in constructing the detachable plate in such a manner, or arranging the several parts comprising the escapement on said plate in such a way that the scape-wheel may be readily adjusted in a proper relative position with the pallets or other part or parts, which work in contact with the teeth of the scape-wheel, the detachable plate being secured to or in the frame which contains the "train," or part of the watch-movement, in such a manner that it may be adjusted so that the pinion on the scape-wheel arbor may always be adjusted properly in gear with the wheel of the "train" in which it is designed to work.

The following description refers to a watch provided with what is generally known as the "detached-lever escapement," but the invention, as previously alluded to, is applicable to watches provided with any of the known escapements, and any one kind of them may be detached and removed from a watch, and another kind applied at will, without any difficulty or trouble whatever; and as escapements vary very materially in price, according to finish, material employed, and superior workmanship, and comprise the most important part of a watch-movement, a person provided with a watch of my invention, having a cheap escapement or a defective one, can, at any time, have a more perfect and expensive one applied at a comparatively small cost. In the accompanying sheet of drawings—

Figure 1 is a detached view of the plate on which the escapement is fitted, which, in this instance, is the "detached lever."

Figure 2 a view of the same applied to a "train" or other portion of a watch-movement, all being enclosed within a watch-case.

Figure 3, a detached view of the escapement-plate, with the escapement removed.

Similar letters of reference indicate corresponding parts.

A represents a back plate, between which and a front plate, the portion of the movement of a watch commonly termed the "train" is secured. This portion of the movement may be of ordinary construction, and therefore does not require a special description. B represents a plate or frame, (a flat plate will probably be most generally used,) on which the escapement is placed, and properly fitted and secured. The drawings, figs. 1 and 2, show the ordinary detached-lever escapement, *a* being the balance-wheel; *d*, the scape-wheel; *e*, the lever, armed with pallets, as usual. This escapement being in common use and well known, does not require a special description. The escapement-plate B is made of such a size and form that it may be fitted to the back plate A, or to any parts connected therewith, in such a manner that the pinion on the arbor *f* of the scape-wheel may be made to gear into the proper wheel, *g*, of the train, (see fig. 2.) The plate B may be secured to plate A, or parts connected therewith, by screws *h h*, and it will be seen that by removing these screws the plate B, and the whole escapement which is attached thereto, may be removed from the watch, and another applied; hence, in case of an escapement becoming worn by use, or rendered defective from any cause, it may be detached, and a new one applied, of the same kind as the original, or of any other kind. The plate B has a slot, *i*, made in it, which extends from its outer edge inward, between the arbor *f* of the lever, and the arbor *j* of the scape-wheel, and *k* is a screw, which passes horizontally into the plate B, and crosses the slot *i*. By turning this screw, the parts of the plate at each side of the slot may be brought nearer together or further apart, as may be required, and by this means the pallets of the lever *e* may be made to engage with the teeth

of the 'scape-wheel, as required. The regulating of the lever and 'scape-wheel relatively with each other is an extremely nice operation, for the proper running of the watch depends upon it, and my improvement admits of that being done with the greatest facility and accuracy. With the ordinary fixed escapement it is attended with considerable trouble and expense, and if the parts are not properly disposed at first, or in the putting together of the escapement, correction afterward is rather a dubious matter.

In case this adjustment of the 'scape-wheel and lever should interfere with the proper gearing of the pinion, on the arbor of the 'scape-wheel, with the wheel *g* of the "train," the plate B must be adjusted to remedy the difficulty, and this may be readily done by having the holes of the screws *h* rather oblong, to admit of a lateral adjustment of said plate.

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

1. Placing or attaching the escapement of a watch to a separate or independent plate or frame, applied or fitted to the plates or frame which contain the "train," or other portion of the watch-movement, in such a manner that the escapement attached may be removed at will, and another escapement substituted therefor, substantially as shown and described.

2. The slot *i*, in the escapement-plate B, and the screw *k* inserted therein, or an equivalent means, for the purpose of adjusting the scape-wheel and the lever-pallets in a proper relative position with each other, substantially as set forth.

The above specification of my invention signed by me, this 22d day of October, 1867.

GEORGE FREDERIC ROSKOPF.

Witnesses:

L. RENAUD,
DEFS. RESIN.