



A.D. 1873, 2nd DECEMBER. N° 3945.

Watches.

LETTERS PATENT to Benjamin Haas, junior, of 104, Boulevard Sébastopol, Paris, France, Watch and Clock Manufacturer, for the Invention of "IMPROVEMENTS IN WATCHES."

Sealed the 15th May 1874, and dated the 2nd December 1873.

PROVISIONAL SPECIFICATION left by the said Benjamin Haas, at the Office of the Commissioners of Patents, with his Petition, on the 2nd December 1873.

I, BENJAMIN HAAS, junior, of 104, Boulevard Sébastopol, Paris, France, Watch and Clock Manufacturer, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN WATCHES," to be as follows :—

The first part of my Invention relates to winding up the watch in such a manner that the movement of the watch may be described as perpetual, whilst the means of effecting it are invisible; this is produced by the simple action of opening the case to see the time, the mechanism for producing this result being two metal shafts or blades united by a pin which allows of free play to their movements. The first blade

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terminates at one end in a hook, which is fixed to the hinge of the watch lid, consequently it follows its movements when opened and closed, and actuates the other blade or shaft, imparting to it a see-saw movement. To this latter blade a rack is connected, the teeth of which gear with a ratchet wheel fixed on the arbor of the barrel spring. 5

The action of these parts is as follows :—On opening the watch the rack is forced upwards by aid of the two articulated blades, in such wise that the teeth of the rack entering those of the ratchet fixed on the arbor of the barrel spring, cause it to turn and so winds up the watch spring; this action is repeated each time the case is opened, thus 10 obviating the usual mode of winding.

The second part of my Invention has reference to setting the hands of the dial. This is effected in the following manner :—By turning a button attached to a shaft passing through the knob (of the watch) bearing the ring, the end of this shaft terminates in a bevil pinion gearing with a 15 similar wheel, which transmits motion to a third wheel in communication with the minute wheel work, and by the combination with these parts of a safety detent in communication with the above-named shaft, whose object is to lessen the friction produced by the gearing of the wheels. 20

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Benjamin Haas, in the Great Seal Patent Office on the 28th May 1874.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, BENJAMIN HAAS, junior, of 104, Boulevard Sébastopol, Paris, France, Watch and 25 Clock Manufacturer, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Second day of December, in the year of our Lord One thousand eight hundred and seventy-three, in the thirty-sixth year of Her reign, did, for Herself, Her heirs and suc- 30 cessors, give and grant unto me, the said Benjamin Haas, junior, Her special licence that I, the said Benjamin Haas, junior, my executors, administrators, and assigns, or such others as I, the said Benjamin Haas, junior, my executors, administrators, and assigns,

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should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of
5 Man, an Invention for "IMPROVEMENTS IN WATCHES," upon the condition (amongst others) that I, the said Benjamin Haas, junior, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was
10 to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Benjamin Haas, junior, do hereby declare the nature of my said Invention, and in what manner the same
15 is to be performed, to be particularly described and ascertained in and by the following statement :—

The first part of my Invention relates to winding up the watch in such a manner that the movement of the watch may be described as perpetual, whilst the means for effecting it are invisible ; this is effected
20 by the simple action of opening the case to see the time, the mechanism for producing this result being two metal shafts or blades united by a pin, which allows of free play to their movements. The first blade terminates at one end in a hook which is fixed to the hinge of the watch lid, consequently it follows its movements when opened and closed, and
25 actuates the other blade or shaft imparting to it a see-saw motion. To this latter blade a rack is connected, the teeth of which gear with a ratchet wheel fixed on the arbor of the barrel spring.

The action of these parts is as follows :—On opening the watch the rack is forced upwards by aid of the two articulated blades, in such wise
30 that the teeth of the rack entering those of the ratchet on the arbor of the barrel spring cause it to turn, and so winds up the watch spring ; this action is repeated each time the case is opened, thus obviating the usual mode of winding.

The second part of my Invention has reference to setting the hands of
35 the dial. This is effected in the following manner :—By turning a button attached to a shaft passing through the knob of the watch bearing the ring, the end of this shaft terminates in a bevil pinion, gearing with a

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similar wheel which transmits motion to a third wheel in communication with the minute wheelwork, and the combination with these parts of a safety detent in communication with the above-named shaft, whose object is to lessen the friction produced by the gearing of the wheels.

In the accompanying Drawings the face of the watch is supposed to be removed to show the mechanism, those parts only being shown that have relation to my Invention. 5

A and B are the two metal shafts united by the pin *a*; the blade A terminates in a hook connected to the hinge of the watch lid *b*; the other blade or shaft B is united to the rack C, the teeth of which 10 gear with the ratchet wheel G fixed on the arbor of the barrel spring; E is a spring for keeping the rack in the position it should retain for its proper functions; H is the plate of the barrel spring; I is the lever uniting the rack C and blades A, B; J is the screw for fixing the lever I; K is the pivot; R is the safety detent for reducing the friction of the 15 wheel; S is the pinion of transmission; T, the shaft for setting the hands; *r*, spring; *s*¹, the hands.

I claim as my Invention,—

1st. The combination with the ordinary watch works, of the blades A and B in conjunction with the rack C and ratchet G, lever I and 20 spring E, as and for the purposes herein set forth.

2nd. The combination with the shaft T of the bevil wheel S, for setting the hands, in conjunction with the safety detent R and spring *r*, for reducing the friction of the wheels, as and for the purposes herein 25 set forth.

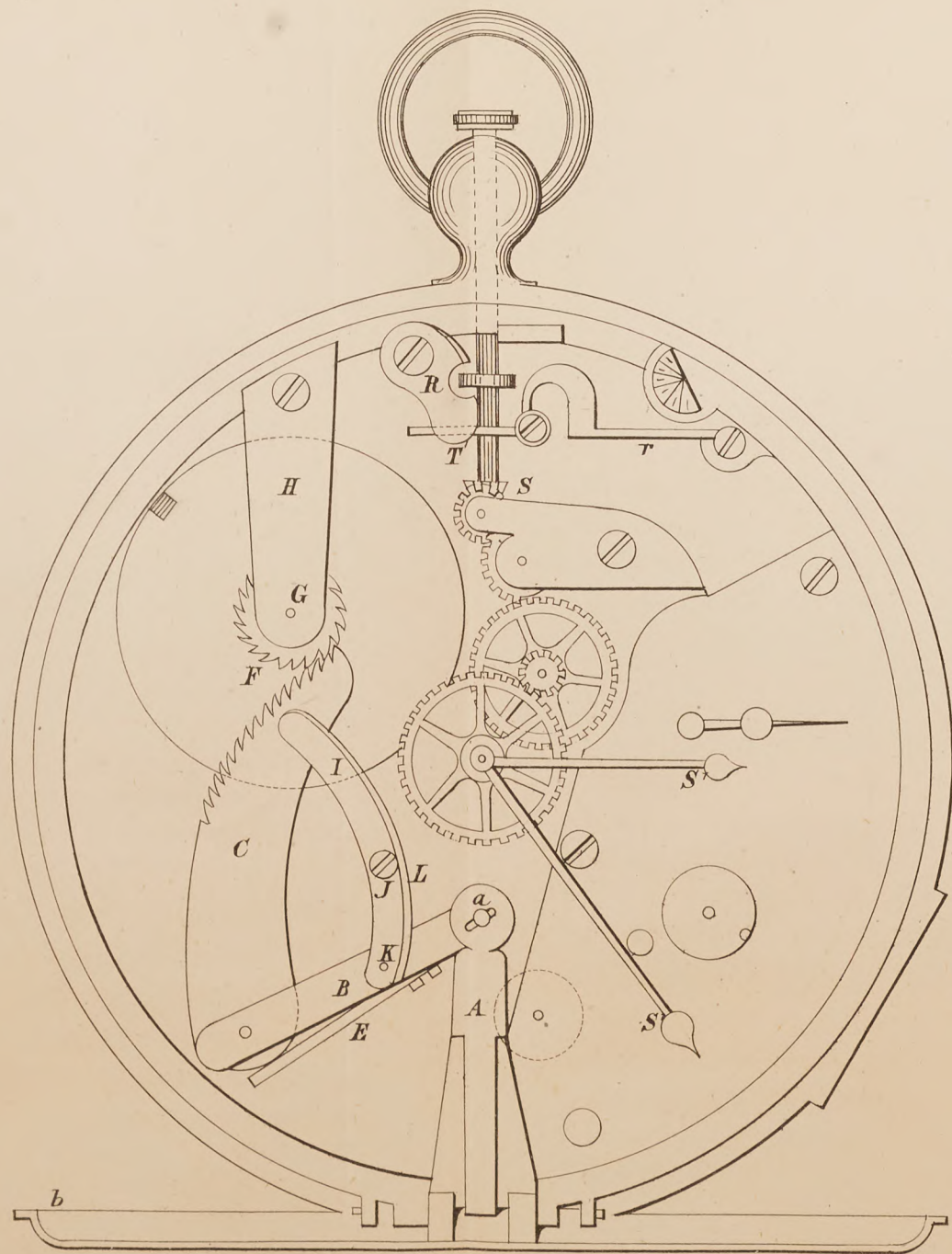
In witness whereof, I, the said Benjamin Haas, junior, have hereunto set my hand and seal, this Twenty-fifth day of May, in the year of our Lord One thousand eight hundred and seventy-four.

B. HAAS, J^r. (L.S.) 30

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Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
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HAAS' SPECIFICATION.



The filed drawing is not colored.

Drawn on Stone by Malby & Sons

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