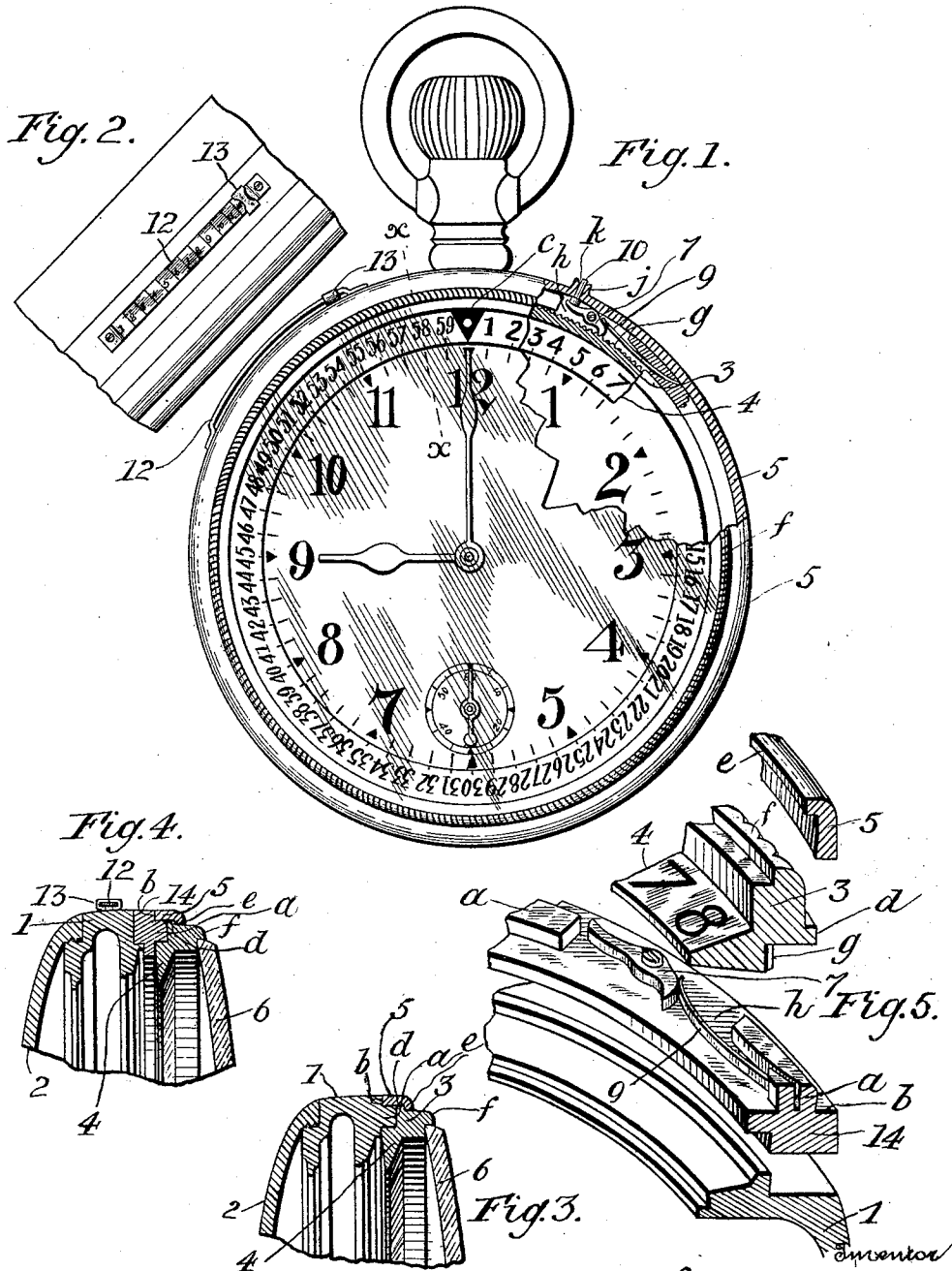


R. B. HANSELL.
CLOCK AND WATCH.
APPLICATION FILED MAY 11, 1910.

995,457.

Patented June 20, 1911.



Witnesses
Frank B. Woodrow.
Alberta Richards.

By

Robert B. Hansell,
G. H. T. Howard.

Attorneys.

UNITED STATES PATENT OFFICE.

ROBERT B. HANSELL, OF BALTIMORE, MARYLAND.

CLOCK AND WATCH.

995,457.

Specification of Letters Patent. Patented June 20, 1911.

Application filed May 11, 1910. Serial No. 560,564.

To all whom it may concern:

Be it known that I, ROBERT B. HANSELL, of the city of Baltimore and State of Maryland, have invented certain Improvements in Clocks and Watches, of which the following is a specification.

This invention relates to improvements in that class of clocks and watches in which a system of figures together with an indicating point, are inscribed on a surface which for a better name, I term a chart, and is susceptible of rotation about, and independently of the central staff carrying the hour and minute hands, and whereby certain information with respect to the duration and lapse of time, is ascertained after setting the indicator in radial alinement with the minute hand of the clock when the same is running and it consists in a development of the invention shown and described in Letters Patent, No. 961,957 granted to me on the 21st day of June, 1910, to which reference should be made.

In the description of the present invention which follows, reference is made to the accompanying drawing forming a part hereof, and in which,—

Figure 1 is a partly sectional view of a watch provided with the present invention. Fig. 2 is an exterior edge view of a part of Fig. 1. Fig. 3 is a section taken on the dotted line *x—x* Fig. 1. Fig. 4 is a view similar to Fig. 3 illustrating a slightly modified construction of a part of the same. Fig. 5 is an enlarged perspective view of certain parts shown in Fig. 4, and which are shown as separated.

Referring now to Figs. 1, 2 and 3 of the drawing, 1 is the body of a watch case, and 2 the back which is shown as screwed to the body. According to the present invention the outer face of the body 1 is provided with an annular tongue *a* of such width as to produce the depressed annular surrounding surface *b*. Seated on the annular tongue *a* is the rotary bezel 3 carrying the inner annular chart 4 which is provided with figures, and also the indicating mark *c* the whole being arranged substantially as shown in the patented invention before referred to, and for similar purposes.

In order that the bezel 3 may be rotated without separation from the outer face of the tongue *a*, I furnish the bezel with an exterior annular projection *d* having an external diameter corresponding practically

with that of the tongue, and employ in connection with the said parts, a binding ring 5 to connect the body of the case with the bezel. To adapt the binding ring for the purpose in view, it is provided with an inner annular lip *e* which engages the outer face of the projection *d*.

It is immaterial as far as this invention is concerned, how the union of the binding ring 5 with the case 1 is effected, and in the drawing it is accomplished by giving the tongue a slight flare, and forming the binding ring with a similar inner surface, whereby the binding ring may be snapped over the tongue. The means of connection depends upon the elasticity of the ring, and is common in the application of bezels to the bodies of watch cases.

6 is the watch glass or crystal which is held in the bezel in the usual manner.

The corner *f* of the bezel is preferably knurled, to facilitate the bezel being rotated by hand.

As it would not be safe to depend upon the binding ring alone to insure the temporary retention of the bezel with its chart in any circumferential position in which it may be placed, I provide a suitable brake which is preferably produced by furnishing the entire outer circumference *g* of the chart portion of the bezel with ratchet teeth, as shown in Figs. 1 and 5, and remove a portion of the tongue *a* so as to produce the cavity *h*. Within this cavity I place a pawl 7 the point of which is adapted to engage with the ratchet teeth on the bezel, and is so held by the spring 9.

10 is a pin which extends loosely through a hole in the binding ring 5, with its head bearing upon the tail-piece of the pawl. A boss *j* is formed on the binding ring through which the pin passes; and in the outer surface of this boss is formed a slit or notch *k* to guide the nail of the finger of the user of the watch inward to render the pawl inoperative should it be desired to rotate the bezel without the clicking of the pawl. The notching of the boss however is not new, and does not form a feature of the present invention.

In the turning of the bezel for the purpose described in the said pending application, it may be necessary to know the hour at that time, not the exact hour, but the hour first or last indicated by the hour hand when the minute hand reaches the numeral 12 on the

dial, I therefore place on the edge of the case the scale 12, with a slide 13 thereon which slide may be set to indicate any one of the numerals. The employment of this device renders it unnecessary for the person using the watch, to charge his memory with the hour at which the indicating mark *c* is set with reference to the minute hand of the watch, in ascertaining the lapse of time between two observations of the chart.

In the foregoing I have described the tongue as formed directly on the watch case, but in some instances it may be necessary, or preferable, to form the tongue on a base ring which is applied to the case. Such a construction is shown in Figs. 4 and 5 wherein the base ring is denoted by 14, but it will be understood that this alternate construction produces no difference in the operation of the invention, and it is therefore immaterial whether the base ring is used or not.

I claim as my invention,—

1. In a clock or watch, the combination with its case which is provided with an annular tongue on its outer surface, and a rotary bezel carrying a chart and an exterior circumferential projection, of a binding ring which is held to the case by means of the tongue, the said ring having an inner lip which in the application of the ring to the case, bears upon the circumferential projection on the bezel and holds the same to the case, substantially as, and for the purpose specified.

2. In a clock or watch, a case which is provided with an annular tongue on its outer surface, a rotary bezel carrying a chart and having an exterior circumferential projection, and a binding ring which is held to the case by means of the tongue, the said ring having an inner lip which in the application of the ring to the case, bears upon the circumferential projection on the bezel and

holds the same to the case, combined with a scale inscribed with numerals which are independent of and correspond in number with the hours indicated on the watch face, that is to say,—from one to twelve inclusive, which scale is secured to the peripheral edge of the case, and a slide attached to and adapted to be moved longitudinally of the scale to indicate any one of the numerals thereon, substantially as, and for the purpose specified.

3. In a clock or watch, a case which is provided with an annular tongue on its outer surface and with a portion of the tongue removed to form a cavity, a rotary bezel carrying a chart and having an exterior circumferential projection and an annular surface below the said projection provided with ratchet teeth, and a binding ring which is held to the case by means of the tongue, the said ring having an inner lip which in the application of the ring to the case, bears upon the circumferential projection on the bezel and holds the same to the case, combined with a scale inscribed with numerals which are independent of and correspond in number with the hours indicated on the watch face, that is to say, from one to twelve inclusive, which scale is secured to the peripheral edge of the case, a slide attached to and adapted to be moved longitudinally of the scale to indicate any one of the numerals thereon, a spring-held pawl pivoted in the cavity in the case, the point of which pawl engages the ratchet teeth, and means accessible from the exterior of the watch, whereby the action of the pawl may be rendered inoperative, substantially as specified.

ROBERT B. HANSELL.

Witnesses:

WM. T. HOWARD,
ALBERTA RICHARDS.