

No. 797,219.

PATENTED AUG. 15, 1905.

W. E. PORTER.  
WATCH.

APPLICATION FILED JUNE 1, 1904.

Fig. 1

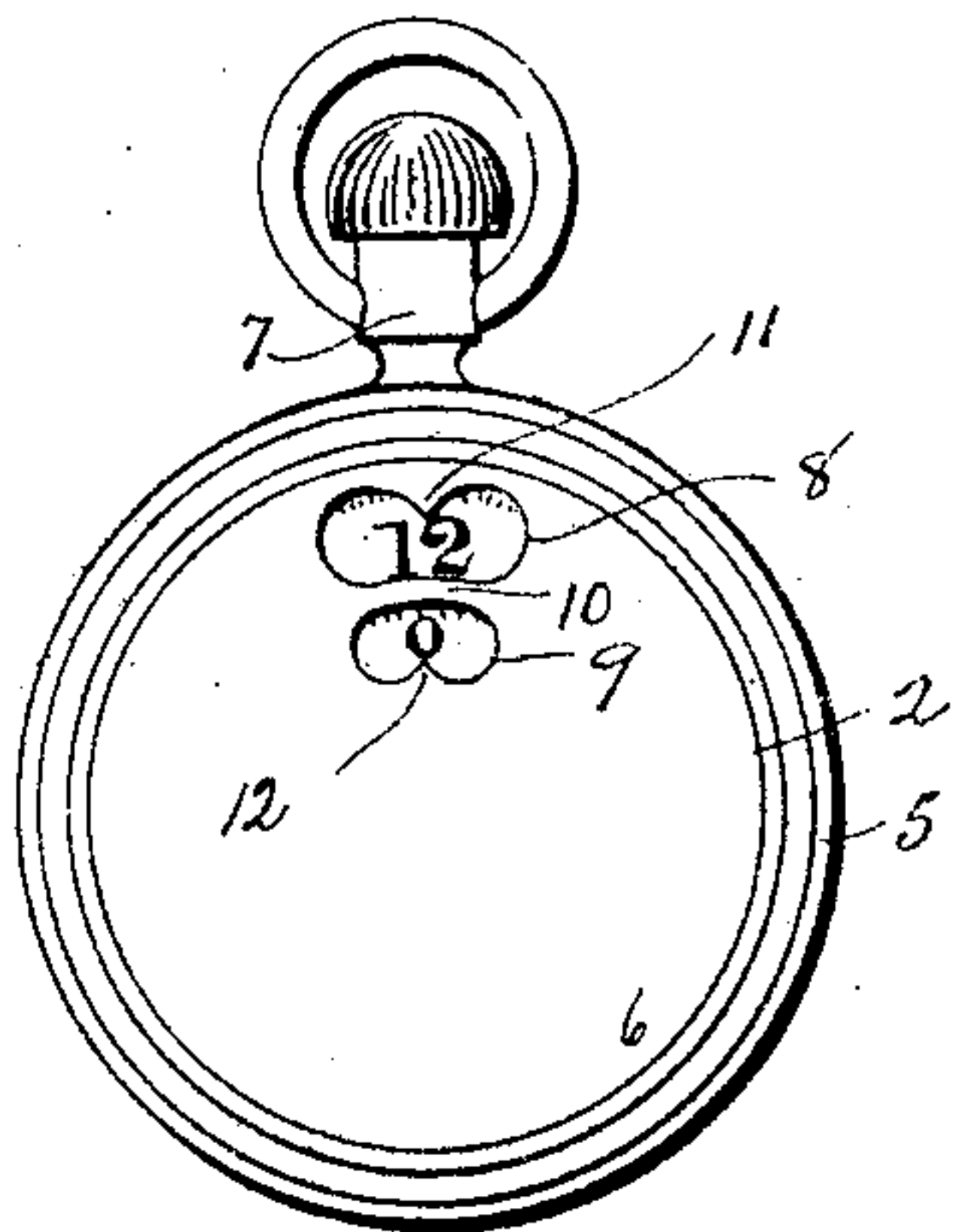


Fig. 2

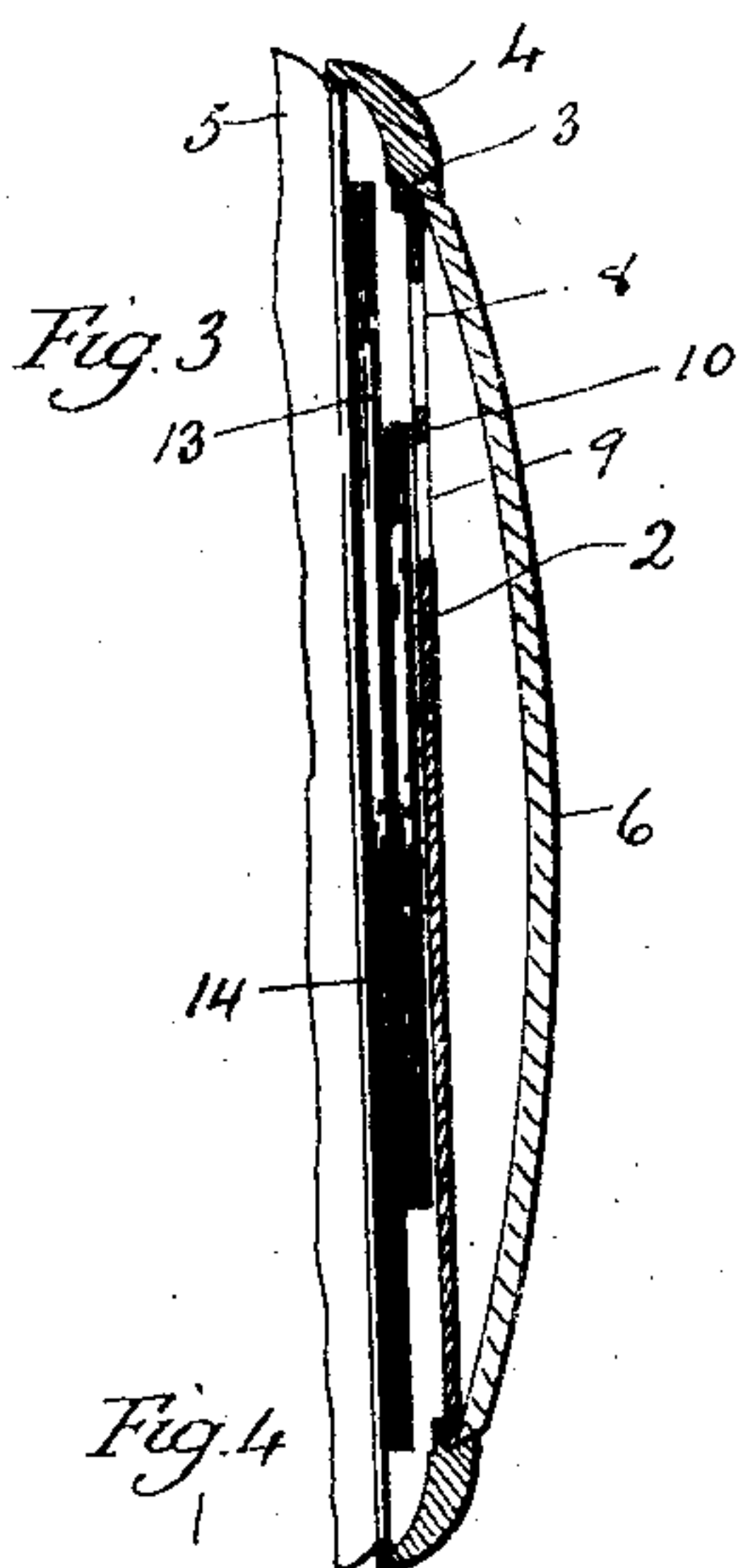
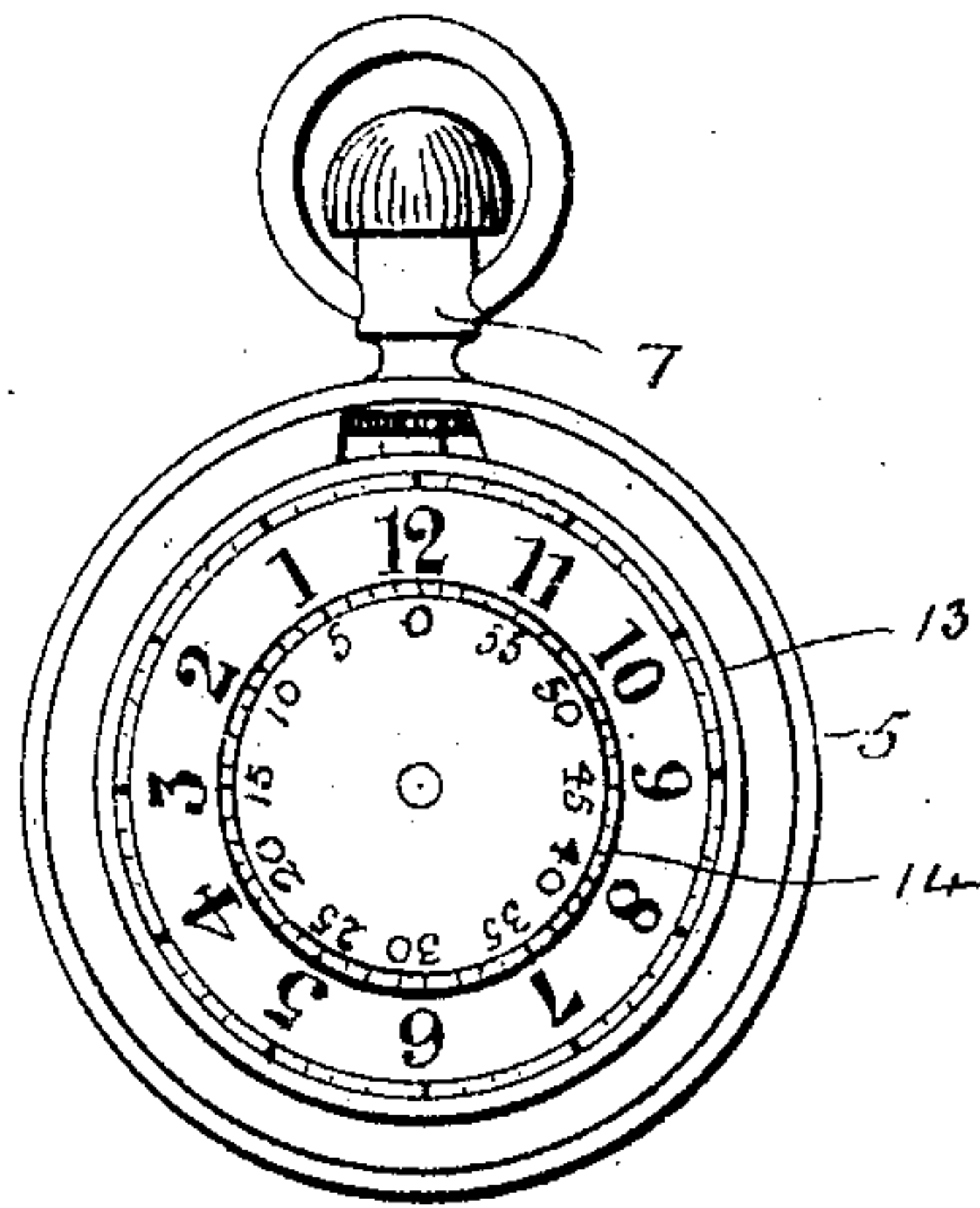


Fig. 5

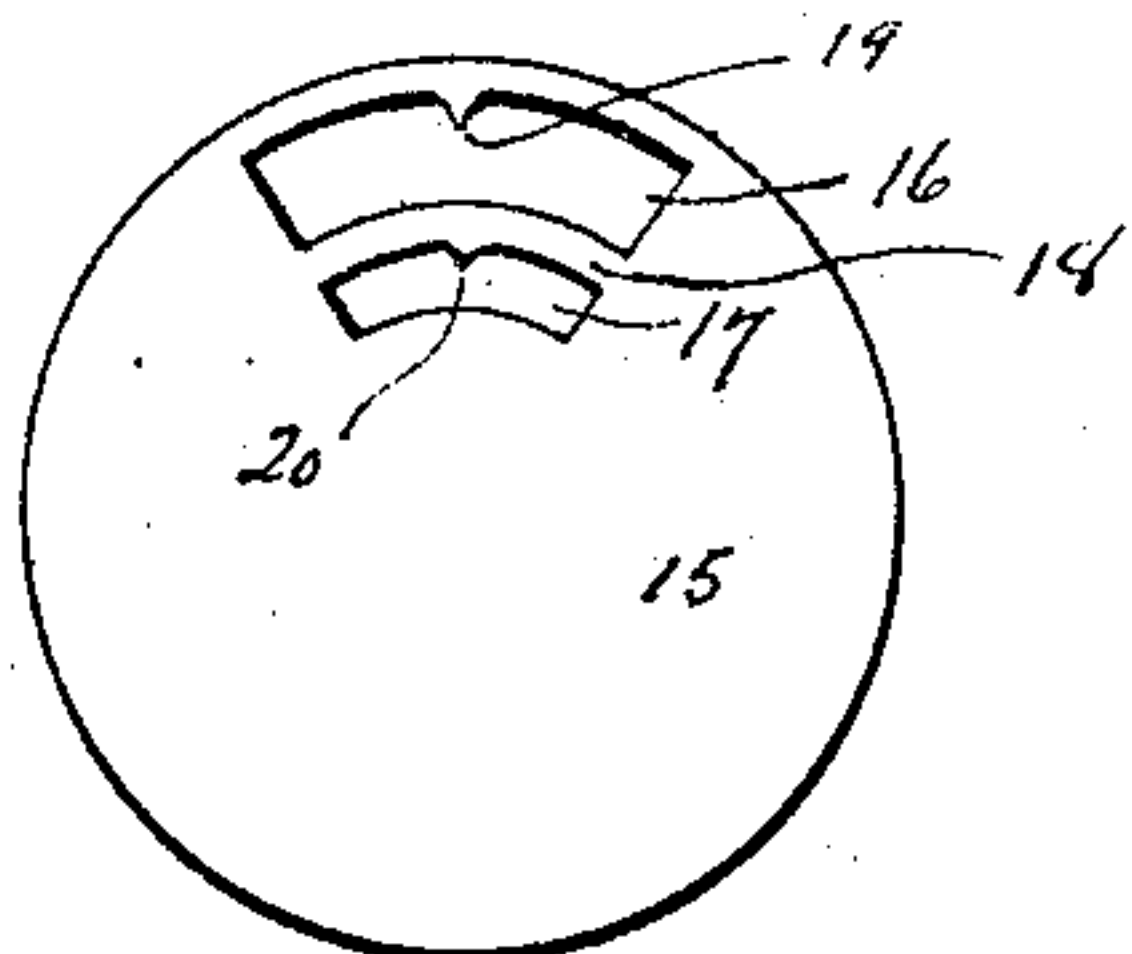


Fig. 4

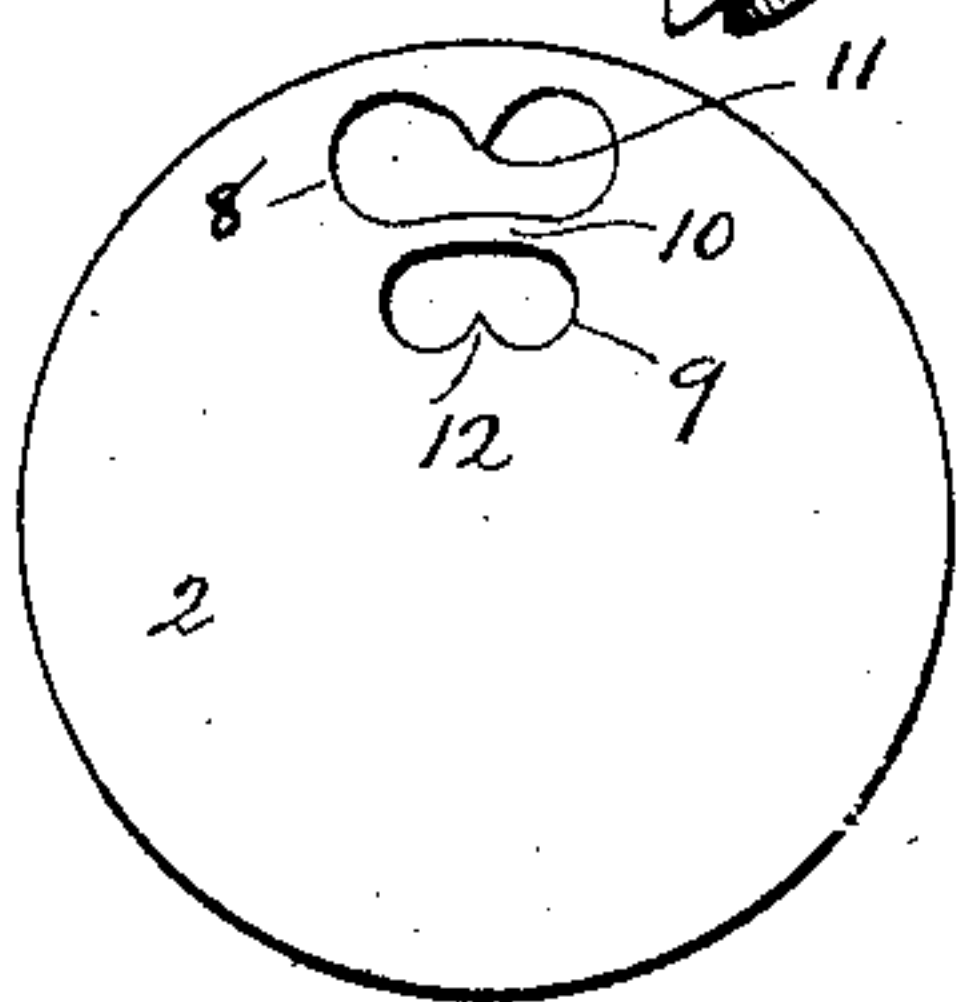


Fig. 6

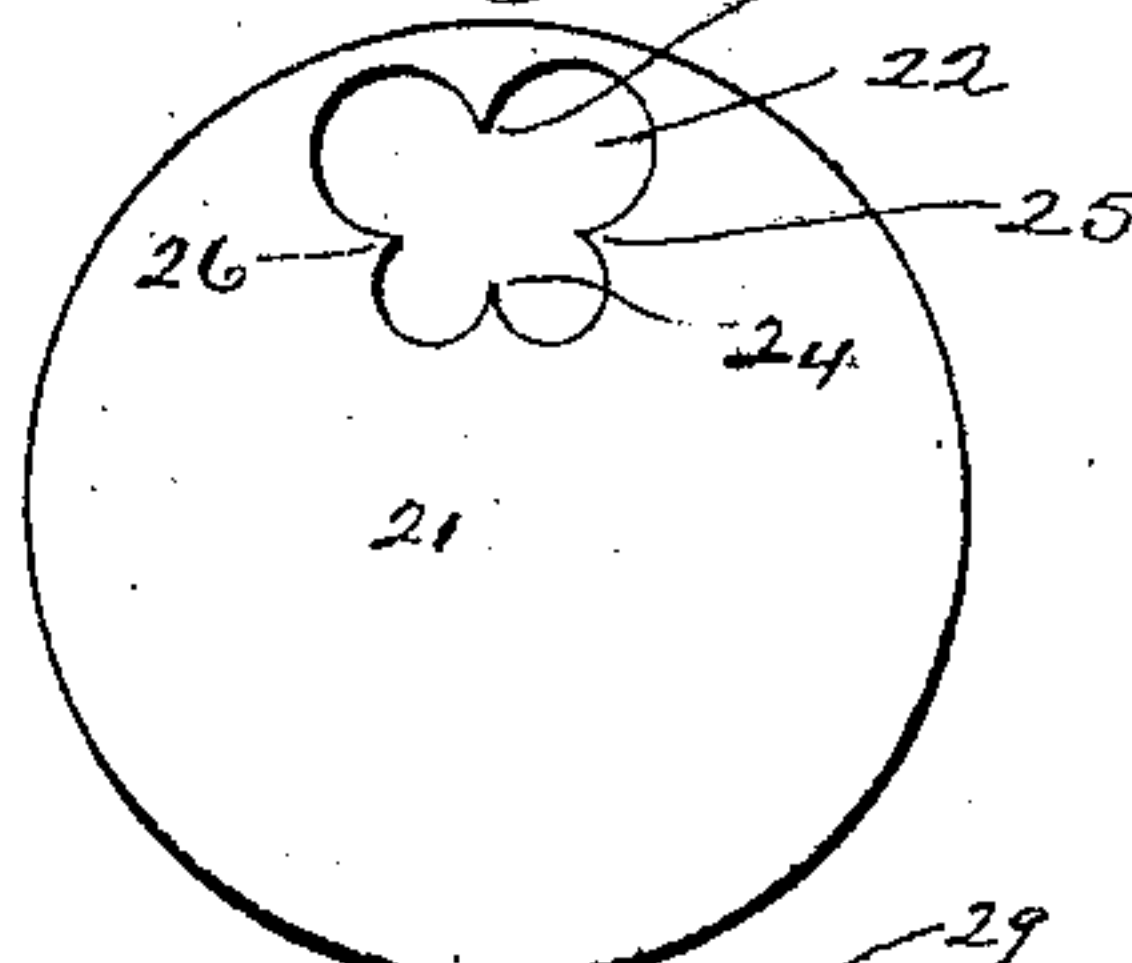
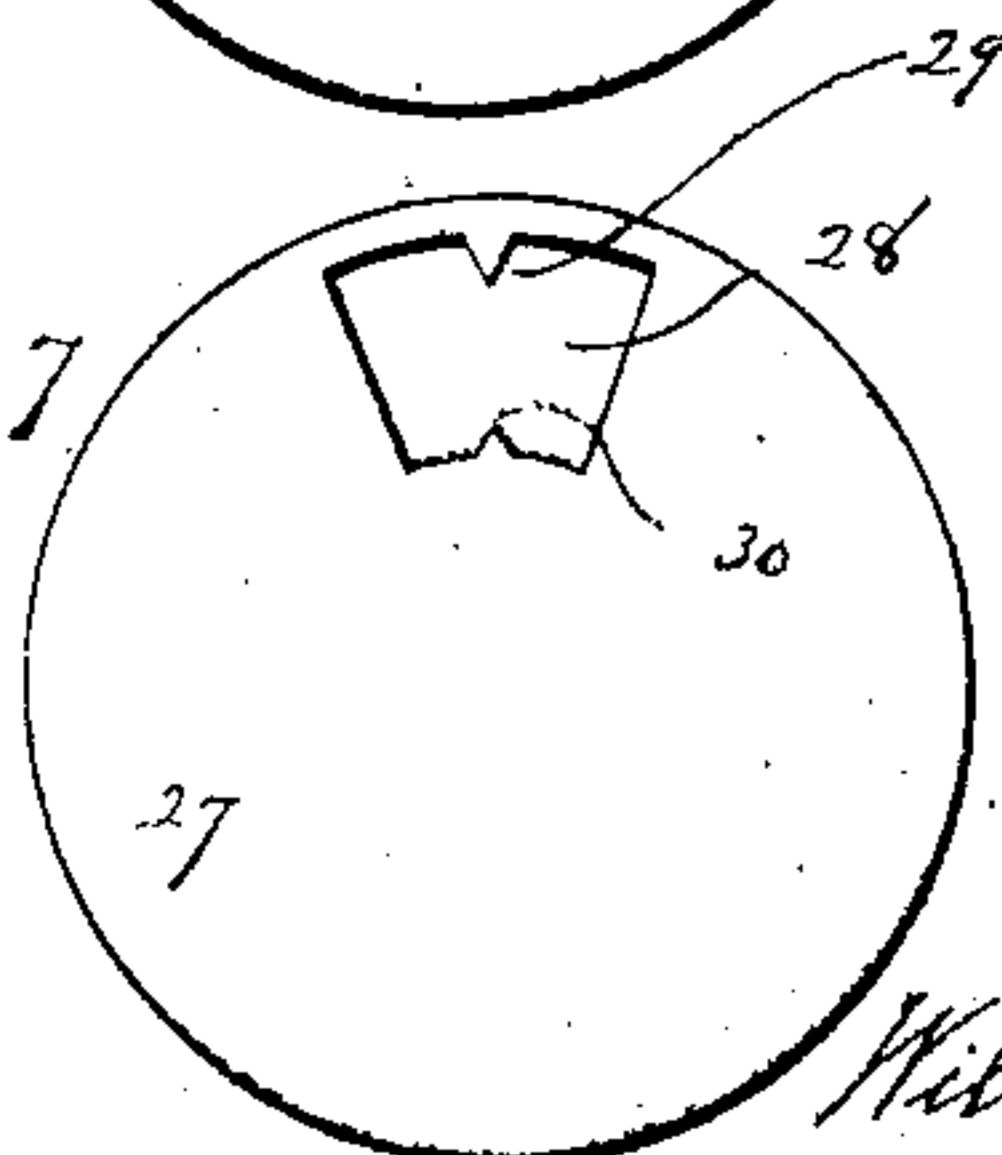


Fig. 7



Witness  
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Witness  
W. E. Porter  
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# UNITED STATES PATENT OFFICE.

WILSON E. PORTER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO NEW HAVEN CLOCK CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

## WATCH.

No. 797,219.

Specification of Letters Patent.

Patented Aug. 15, 1905.

Application filed June 1, 1904. Serial No. 210,708.

*To all whom it may concern:*

Be it known that I, WILSON E. PORTER, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Watches; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a face view of a watch constructed in accordance with my invention; Fig. 2, a corresponding view of the watch with its bezel and crystal removed; Fig. 3, a broken view of the watch in vertical section, drawn on an enlarged scale; Fig. 4, a detached plan view of the shield; Fig. 5, a corresponding view of one of the modified forms which the shield may assume; Fig. 6, a detached plan view of another modified form which the shield may assume; Fig. 7, a similar view of still another form which the shield may take.

My invention relates to an improvement in that class of watches in which the time is told by the exposure through contracted openings in the dial of numerals placed upon disks or wheels taking the place of the ordinary hour and minute hands, the object of the invention being to produce at a low cost for manufacture a watch of this character constructed with particular reference to making the major portion of the watch-face available for the display of advertising or pictorial matter.

With these ends in view my invention consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

I carrying out my invention as shown in Figs. 1 to 4, inclusive, I employ an opaque disk-shaped shield 2, made of celluloid, paper, or other material and adapted in diameter to fit into the bottom of the annular groove 3, forming the crystal-seat of the bezel 4 of the watch-case 5, so as to be located directly back of and concentric with the watch-crystal 6, by which it is held in place and the edge of which enters the outer portion of the said groove and bears upon the outer face of the extreme edge of the shield. I do not, however, limit myself to constructing this shield of any particular material. Above its center and in line with the watch-pendant 7 the said shield is formed with an hour-display opening 8 and

with a smaller minute-display opening 9, the former being located centrally above the latter and the two being separated from one another by a narrow curved bridge 10 substantially symmetrical with the curvature of the watchcase 5. These openings are oblong in form and arranged with their major axes at a right angle to a plane bisecting them and passing through the watchcase 5 and the center of its pendant 7. The hour-display opening 8 is formed with a centrally-arranged inwardly-projecting index or pointer 11, while the minute-display opening 9 is formed with a corresponding outwardly-extending index or pointer 12. These two pointers 11 and 12 are symmetrically located in line with each other and in line with the central plane of the watch. For telling the hour I provide the watch with a relatively large rotary hour-dial 13, arranged concentrically with the watch case 5 and practically corresponding in size to the fixed dial of an ordinary watch. This dial 13 is furnished with numerals running from "1" to "12" and is rotated twice in twenty-four hours by a watch-movement of any suitable character and takes the place of the hour-hand of an ordinary watch. Above the plane of the rotary hour-dial 13 I locate a rotary minute-dial 14, arranged concentrically with it, having its edge graduated to minutes and furnished with numerals running from "0" to "55." This dial 14 takes the place of the minute-hand of an ordinary watch and is driven by the watch-movement so as to make one revolution every hour. These two dials 13 and 14 are proportioned in diameter and have their numerals arranged upon them so that the numerals upon the dial 13 will be displayed through the hour-display opening 8 in the shield 2 and so that the numerals on the dial 14 will be displayed through the minute-display opening 9 therein. The dial 14 being located outside of the dial 13 has its edge exposed, and that is concealed by the bridge 10, as clearly shown by Fig. 3.

In the modification shown by Fig. 5 of the drawings the disk-shaped shield 15 is furnished with a curved square-ended hour-display opening 16 and a corresponding though smaller minute-display opening 17, separated by a narrow curved bridge 18 and respectively entered by indexes 19 and 20, projecting inwardly from the centers of the outer edges of the openings, and therefore extending in the same direction instead of in opposite direc-



tions, as in the case of the indexes 11 and 12 of the shield 2. The bridge 18 is substantially the same as the bridge 10 and performs the same office.

In the modified form shown by Fig. 6 the shield 21 is formed at a point above its center and near its edge with a single quatrefoil-like opening 32, the upper leaves of which are larger than the lower and which is entered above and below by an hour-index 23 and a minute-index 24. Points 25 and 26, extending laterally inward, serve, as it were, to virtually separate the upper and lower leaves of the opening.

In the modified construction shown by Fig. 7 the shield 27 is formed above its center with a single opening 28, having curved inner and outer edges and inclined sides and entered by an hour-index 29 and a minute-index 30, these indexes extending toward each other and both being located in the vertical plane of the shield.

The major portion of each of the several shields shown and described is left available for the display of advertising or pictorial matter. The opening or openings, according as one or more is formed in the shield, may be varied in shape, so as to give a variety of effect, and the shields may be varied in color and material. They may be readily replaced, if desired, for increasing the range of effect in any one watch.

In view of the modifications shown and of others which may obviously be made I would have it understood that I do not limit myself to the construction herein set forth, but hold myself at liberty to make such departures therefrom as fairly fall within the spirit and scope of my invention. I am aware, however, that a clock having a revolving hour-dial and a revolving minute-dial differentiated from each other in size and arranged to be rotated back of a clock-face formed above its

center with openings through which figures on the respective dials are successively displayed is old. I am also aware that it is old in watches to mount a mat in the bezel and hold the mat in place by the crystal. I am further aware that it is old to furnish a watch with a revolving hour-dial and with a concentrically-arranged but smaller revolving minute-dial located above it, these dials revolving under a stationary finger or pointer. I do not, therefore, claim any of these features broadly; but,

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

In a watch, the combination with the case thereof, the said case being provided with a bezel having an annular groove forming a crystal-seat, of a crystal the edge of which is entered into the said groove, an opaque circular shield corresponding in size to the size of the crystal and having its edge located in the bottom of the said groove under the edge of the said crystal which confines the shield in place, a rotary hour-dial located within and concentric with the said case, and a rotary minute-dial smaller in diameter than the said hour-dial and concentric with the same, the said shield being formed with one or more openings for exposing restricted portions of each of the said dials, and the remaining portion of the shield being available under the protection of the crystal, for advertising or pictorial matter.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILSON E. PORTER.

Witnesses:

GEORGE D. SEYMOUR,  
FREDERIC C. EARLE.