

W. H. EBELHARE.
WATCH MOVEMENT CLICK.
APPLICATION FILED JULY 31, 1909.

951,106.

Patented Mar. 8, 1910.

Fig. 1.

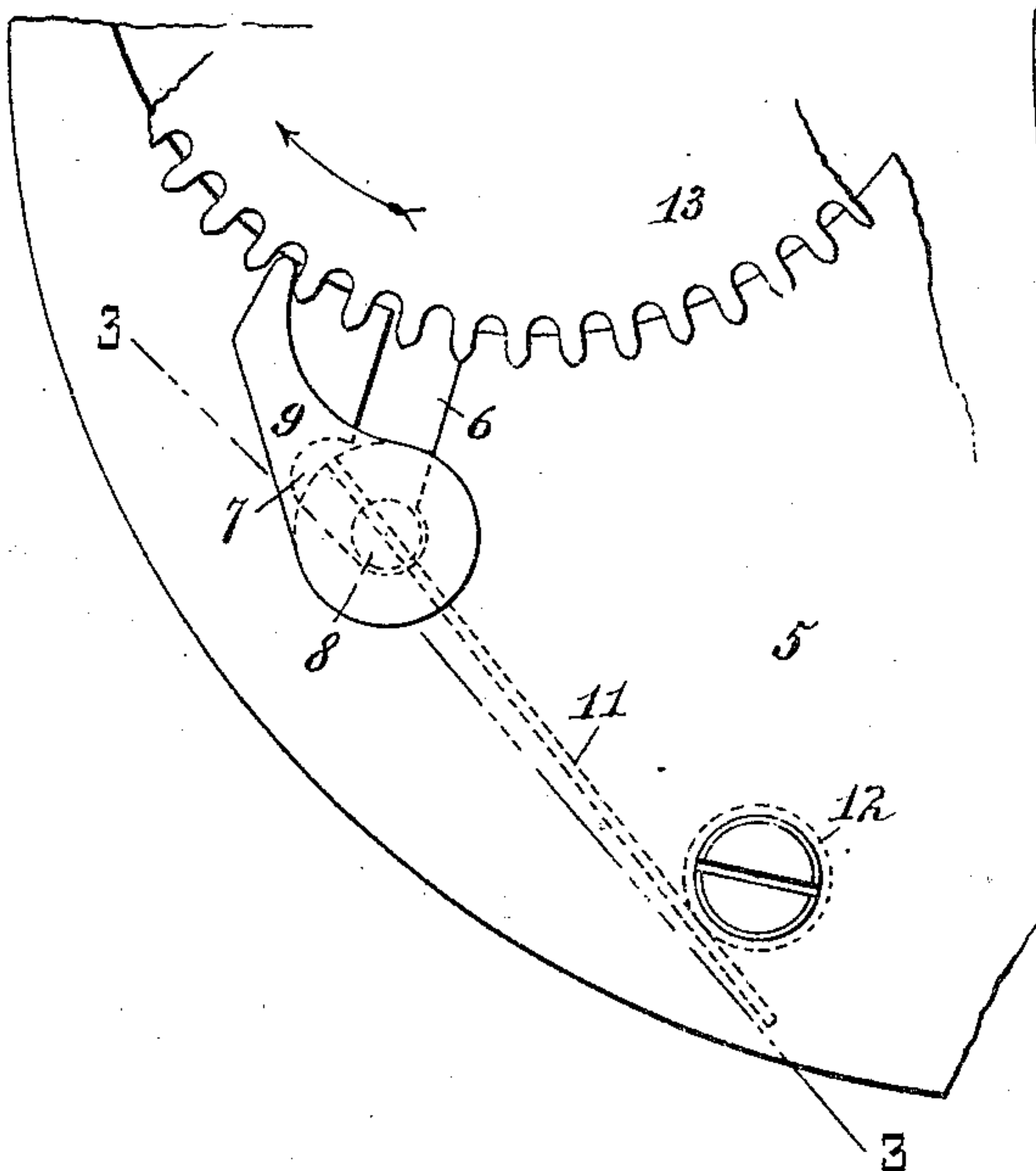


Fig. 2.

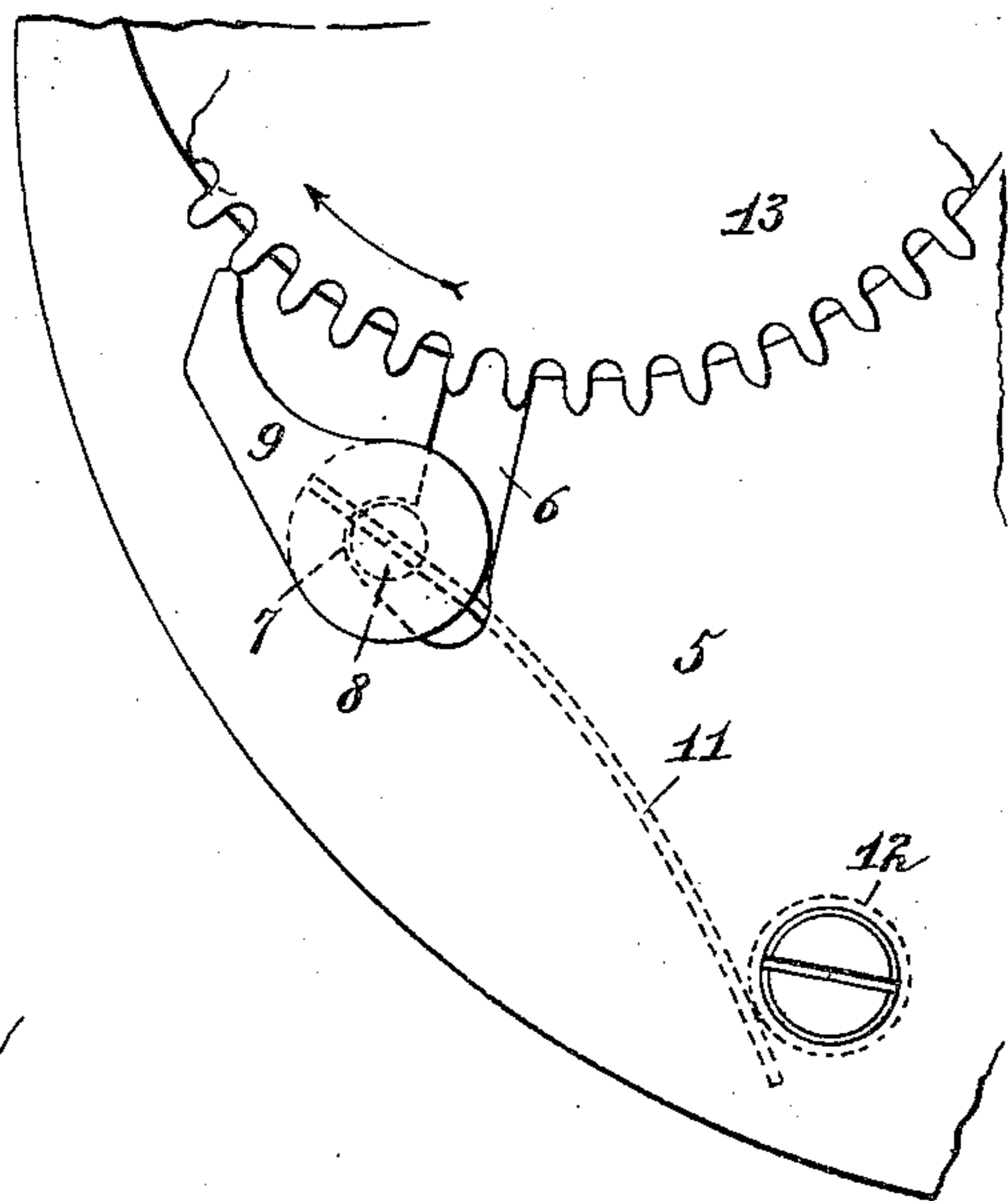


Fig. 3.

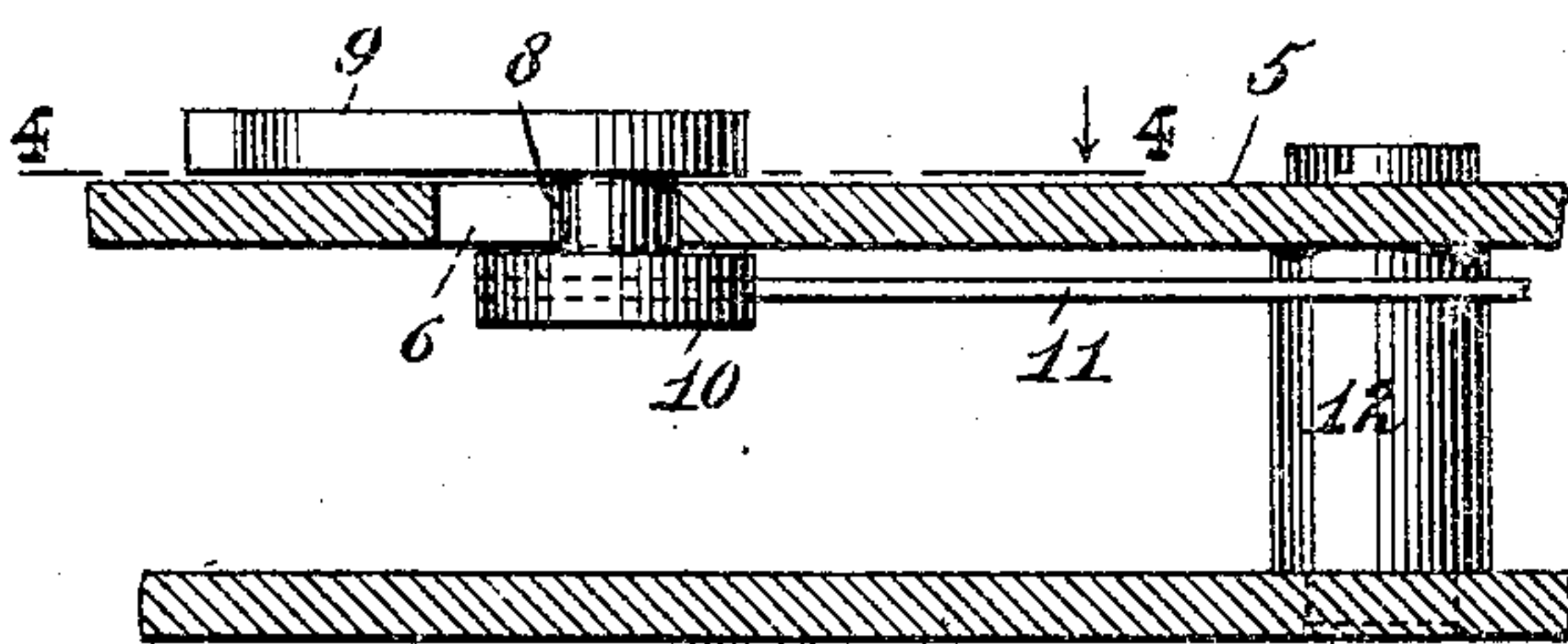
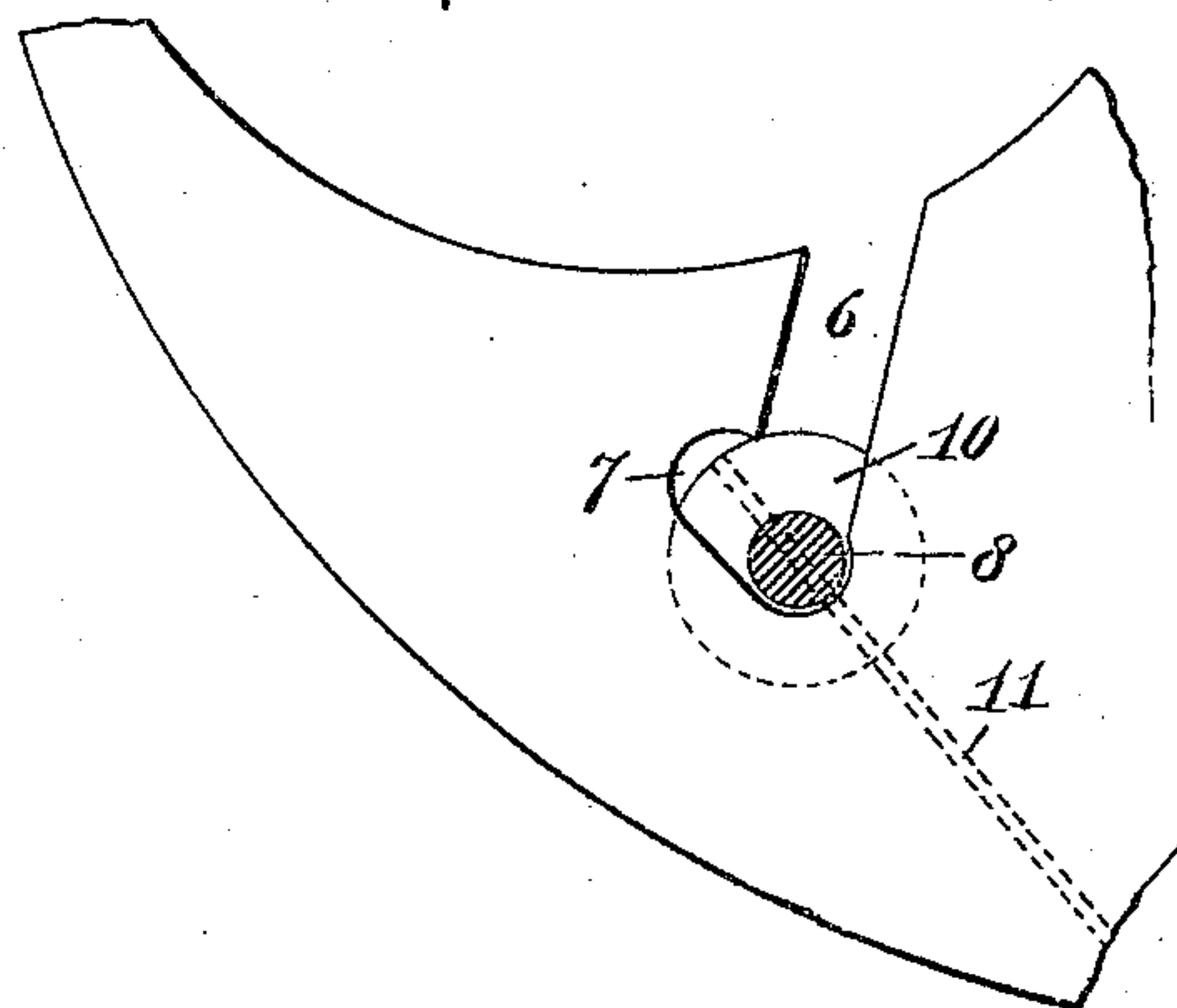


Fig. 4.



WITNESSES:

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WILLIAM HARRY EBELHARE, OF WALTHAM, MASSACHUSETTS, ASSIGNOR TO PHILADELPHIA WATCH CASE COMPANY, OF RIVERSIDE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

WATCH-MOVEMENT CLICK.

951,106.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed July 31, 1909. Serial No. 510,626.

To all whom it may concern:

Be it known that I, WILLIAM HARRY EBELHARE, a citizen of the United States, and a resident of Waltham, in the county of Middlesex and State of Massachusetts, have made and invented certain new and useful Improvements in Watch-Movement Clicks, of which the following is a specification.

This invention relates to an improvement in watch movements, and more particularly to that part or portion thereof commonly known and referred to as the click, the object being to provide a device of this character which shall be cheap and economical to construct, readily assembled with the remaining parts of the movement and which will operate with precision and effectiveness.

With these and other ends in view the invention consists in certain novel features of construction and the combination of parts as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings Figure 1 is a plan view of a part of a watch movement, showing the ratchet wheel click in its normal position. Fig. 2 is a similar view, showing the relative positions of the click and ratchet wheel while in the act of winding the movement. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1. Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3, looking in the direction of the arrow.

Referring to the drawings, 5 represents the top plate of a watch movement provided with the slot or opening 6, the inner extreme end 7 of which slot is formed at approximately right angles to the remaining portion thereof, as clearly illustrated in Fig. 4, and in which slot rests and moves the hub 8 of the click 9, the lower end of the hub being headed or flanged as illustrated at 10 in order to retain the same in its position within the slot.

In a slot within the head or flange 10, is secured one end of a spring 11, the opposite end of said spring resting and moving against the pillar 12, the tendency of this spring being to retain the click 9 in mesh or engagement with the teeth of the ratchet wheel 13, as illustrated in Figs. 1 and 2. As the ratchet wheel 13 is rotated in the direction of the arrow as in the act of winding, the click 9 will be pulled forward, until the hub 8 strikes the end wall of the slot 7, as

illustrated in Fig. 2, whereupon the teeth of the ratchet 13 will force the free end of the click 9 outwardly, and thereby permit the teeth of said ratchet to pass by the end of the click. Upon the receding of the ratchet wheel 13, the end of the click 9 will mesh with the teeth of said ratchet wheel by reason of the tension of the spring 11, forcing the bent or curved end of the click into engagement with said ratchet wheel as illustrated in Fig. 1, the result being that said click is carried backwardly until the hub 8 strikes the opposite end wall of the slot 7, as clearly illustrated in Fig. 4, that is, into its normal position as illustrated in Fig. 1.

The travel of the click 9, and the receding of the ratchet wheel 13 will of course be limited by the length of the slot 7, this receding of ratchet wheel and click being essential in order to prevent the locking of the main spring (not shown) at the extreme end of its wind, it being highly essential in order to secure the greatest benefit of the main spring, to permit of a slight unwinding thereof at the extreme end of its wind, this short unwinding of the spring relieving the latter of any undue strain thereon.

It will be understood from the foregoing that the invention is exceedingly simple and economical to construct, and as I have found in practice, operates with great precision; furthermore, the click is easily and readily assembled with the top plate 5 by sliding the hub 8 into the slot 6, until it reaches the lower portion of the slot 7, and is as easily and readily removed from the plate.

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

1. In a watch movement, the combination with a top plate, provided with a slot, one end of which is formed at approximately right angles to the remaining portion thereof, of a click movably mounted in said slot, a ratchet wheel pivoted to said top plate, with which engages the end of said click, a spring, one end of which is secured to said click, and the opposite end resting against a pillar whereby when said ratchet wheel is revolved, in one direction, the click will be pulled forward in said slot, and forced out of engagement with said ratchet wheel, and when said ratchet wheel is revolved in the opposite direction, the end of said click will

engage the teeth of said ratchet and hold it stationary, substantially as described.

2. In a watch movement, the combination with a top plate formed with a slot, the extreme end of which is formed at approximately right angles to the remaining portion of the slot, of a click provided with a hub fitted in the extreme end of said slot, and normally resting against one end wall thereof, a ratchet wheel pivoted to said top plate and with the teeth of which normally engages the end of said click, a spring, one end of which rests against a pillar secured in said top plate, and the opposite end of which is secured to said click, whereby when the ratchet wheel is turned in one direction,

as in the act of winding, said click will be pulled forward to one end of said slot and out of engagement with the teeth of said ratchet and when said ratchet is rotated in the opposite direction, said click will recede to its original position to the opposite end of said slot and engage with the teeth of said ratchet to hold the latter stationary, substantially as described.

Signed at Waltham in the county of Middlesex and State of Massachusetts this 29th day of July A. D. 1909.

WILLIAM HARRY EBELHARE.

Witnesses:

W. C. Cook,

R. SCHMIEDTGEN.