

No. 626,128.

Patented May 30, 1899.

A. ANZELEWITZ.
STEM WINDING AND SETTING WATCH.

(Application filed Apr. 8, 1898.)

(No Model.)

Fig. 1.

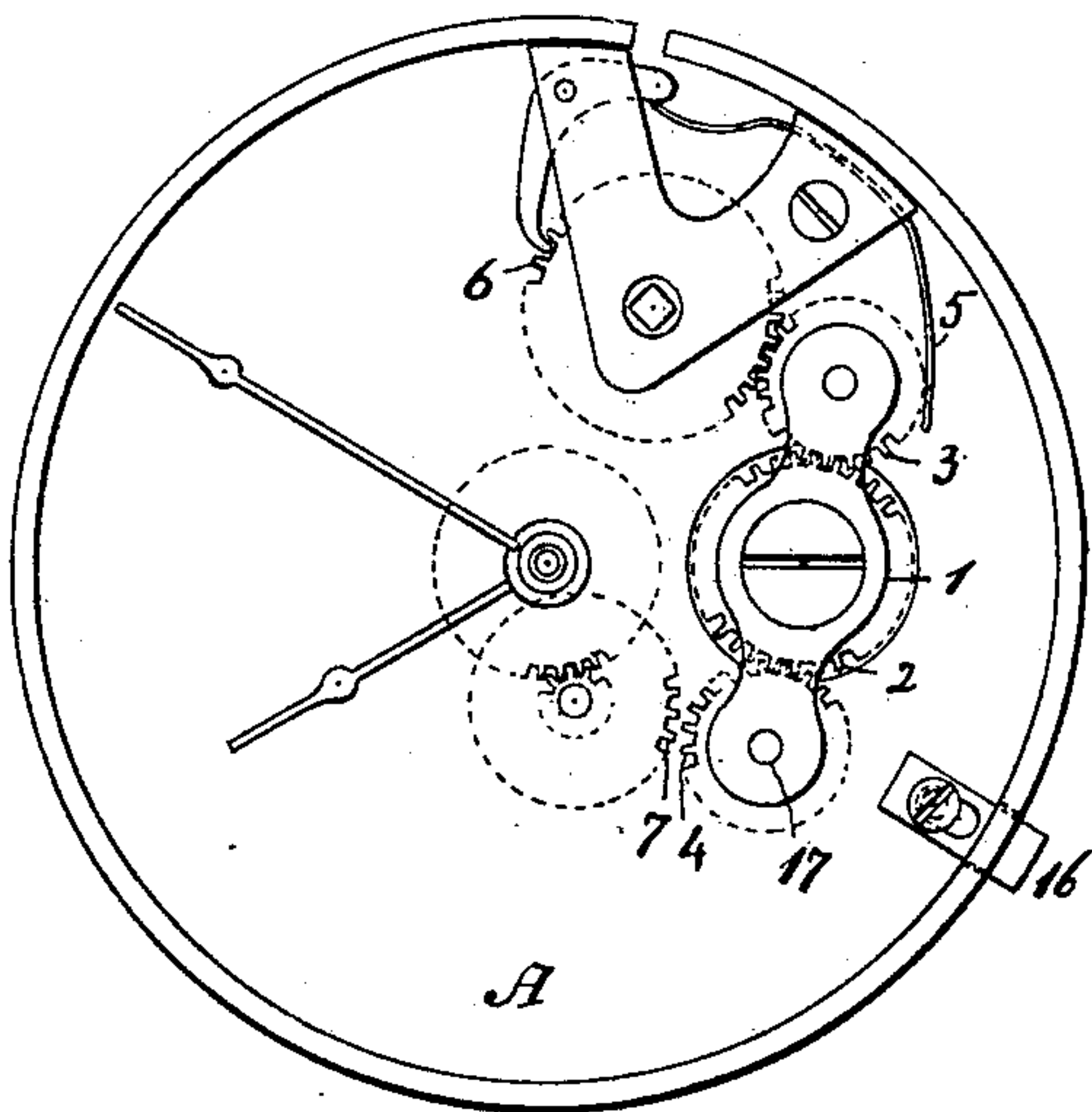


Fig. 2.

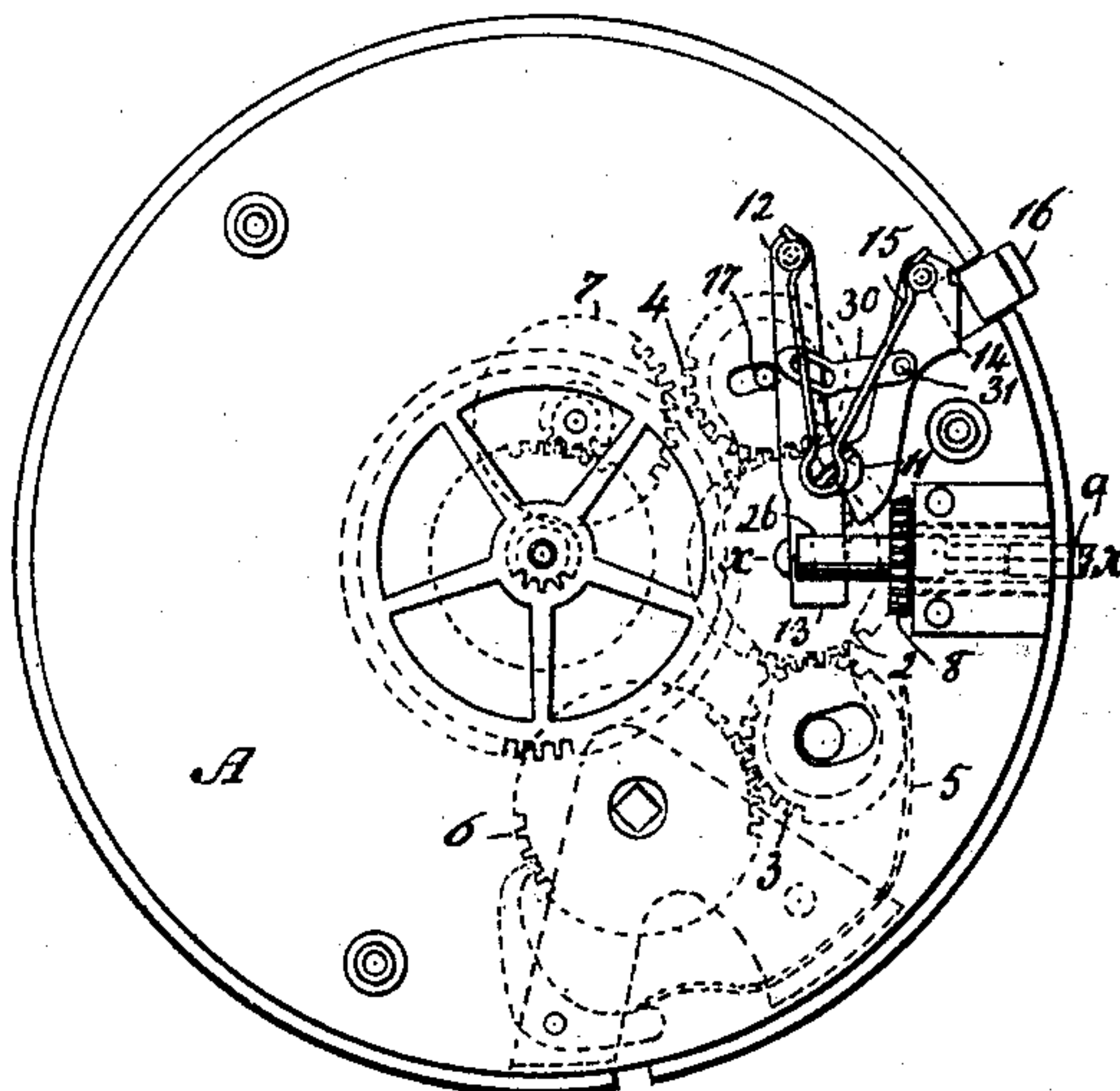


Fig. 3.

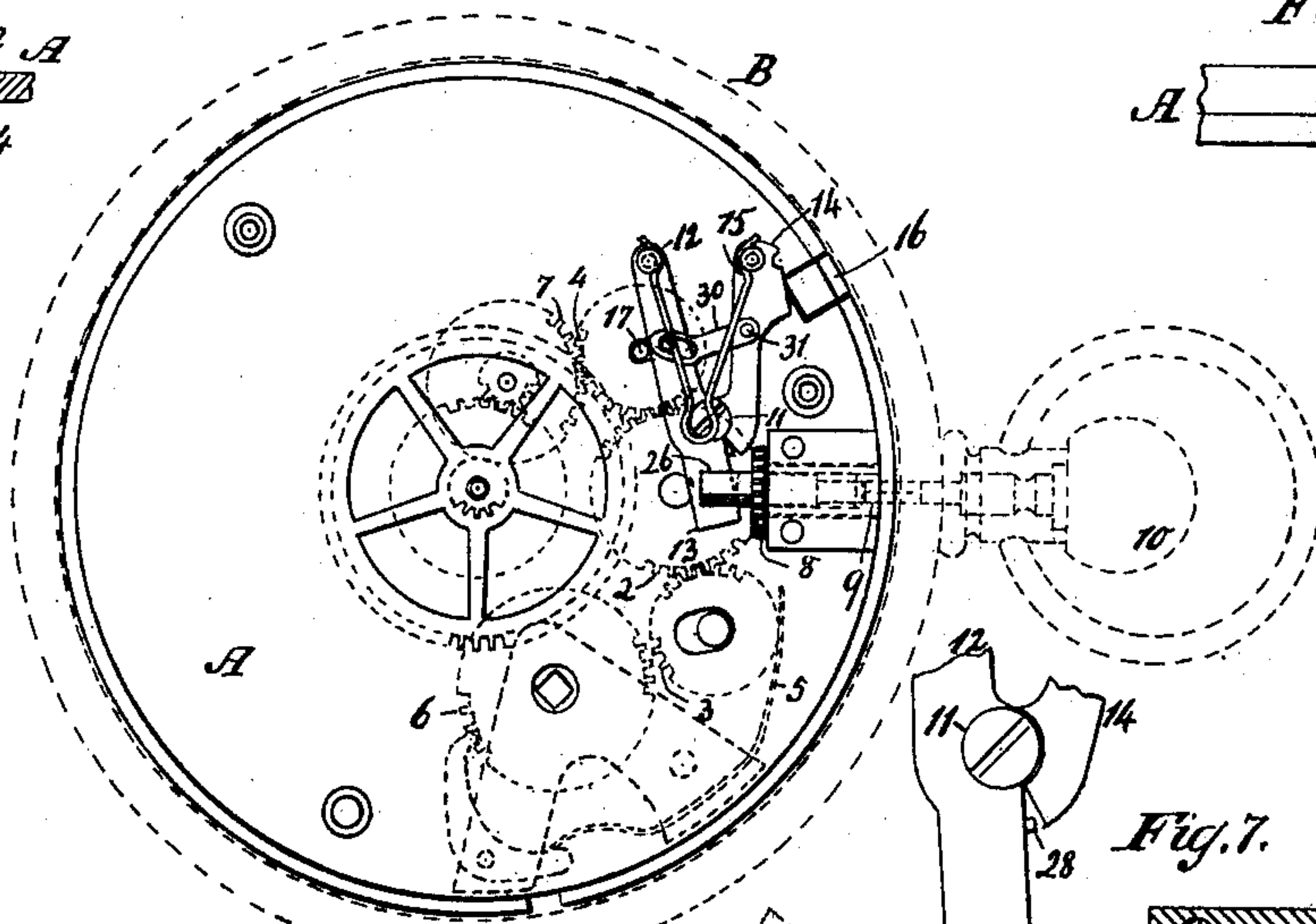


Fig. 4.

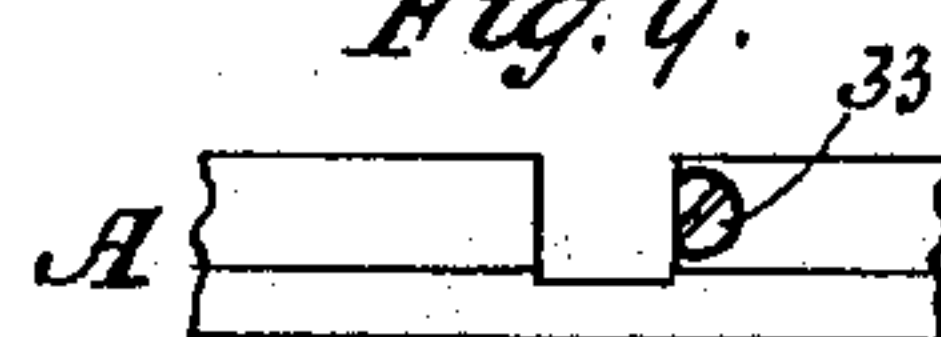


Fig. 5.

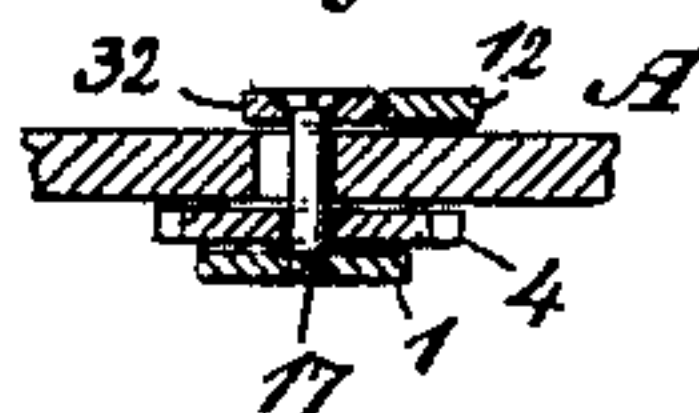


Fig. 6.

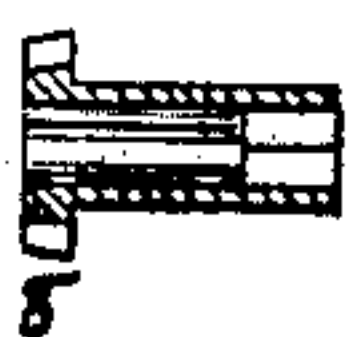


Fig. 7.

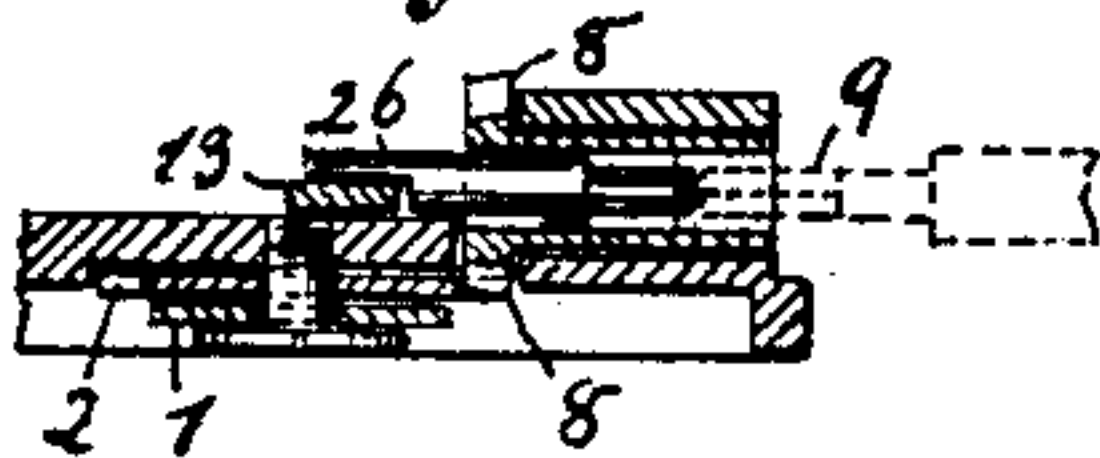
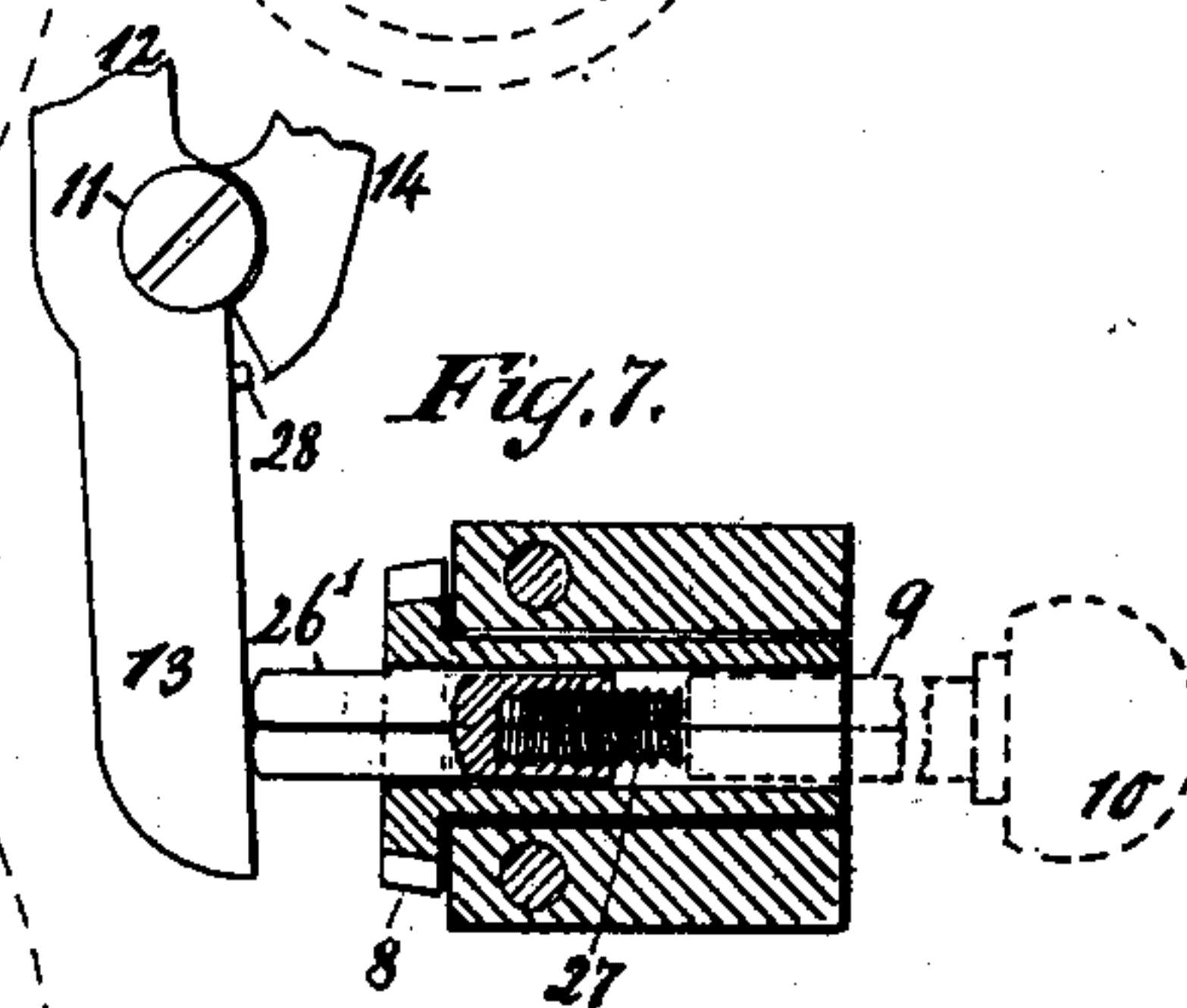


Fig. 8.



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STEM WINDING AND SETTING WATCH.

SPECIFICATION forming part of Letters Patent No. 626,128, dated May 30, 1899.

Application filed April 8, 1898. Serial No. 676,924. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM ANZELEWITZ, a subject of the Czar of Russia, residing at New York, in the county and State of New York, have invented new and useful Improvements in Stem Winding and Setting Watches, of which the following is a specification.

This invention relates to certain details of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 shows the movement out of its case and in position for winding. Fig. 2 is an inverted plan view of Fig. 1. Fig. 3 is a view like Fig. 2, showing the movement in its case and in position for setting. Fig. 4 is a view like Fig. 3, showing the parts in position for winding. Fig. 5 is a section along *xx*, Fig. 2. Fig. 6 is a detail view of a gear-wheel. Figs. 7 and 8 show modifications. Fig. 9 shows a lock for securing the movement in setting position.

In the drawings is shown a plate or disk A, carrying the movement and adapted to be placed or secured in the case B, Fig. 3. The yoke 1, Fig. 1, carries the wheel 2 engaging or meshing with winding-gear 3 and setting-wheel 4. The winding and setting mechanism is normally held by spring 5 in winding position—that is, with winding-wheel 3 in mesh with gear 6, as seen in Fig. 1. For setting, the wheel 3 is out of action and wheel 4 engages setting train or wheel 7, as seen in Fig. 3.

The wheel 2 is engaged or actuated by the gear-wheel 8, Figs. 2, 5, and 6, actuated by stem 9, having finger-button 10. This stem-actuated wheel 8 has a feather connection or angular perforation for the reception of the corresponding stem end 9, so that rotation of the stem is imparted to the wheel; but said stem can move longitudinally without disturbing the actuating-wheel 8.

The plate A has a post or fulcrum 11, on which swings lever 12 13. A swinging arm 14 is also shown on this pivot 11. A spring 15 is shown of approximate V shape and braced between or engaged to the arms 12 and 14 to cause the latter to gap or spread. A projecting piece or slide 16 is made to act or rest against arm 14.

The spring 15 is more powerful than or ar-

ranged to overcome spring 5, and when the movement is put in the case the latter forces the slide 16 inward or toward the center of the movement from the position shown in Fig. 2 to that shown in Fig. 3. The arm 14 is pressed or swung inward by the inwardly-moving piece 16 and compresses the spring 15. This spring acting on arm 12 causes the latter to move the yoke from the winding to the setting position, the arm 12 acting against stud 17, extending from yoke 1 through a slot in plate A to contact with arm 12. The spring 5, as noted, tends to hold the yoke in winding position; but the spring 15 being more powerful than spring 5 will hold or move the arm 12 with stud 17 and yoke 1 in the setting position when the piece 16 is pressed inward, as stated. In other words, the spring 15 is powerful enough to hold the yoke in setting position, notwithstanding the tension of the spring 5. Should, however, the stem 9 be pushed in sufficiently to cause the lever 13 12 to be taken out of action or to swing for closing the arms 12 14 and compressing spring 15, the yoke 1 is free to be moved by spring 5 to winding position, Fig. 4. Moving stem 9 out or away from lever-arm 13 leaves the spring 15 free to open the jaws 12 and 14 to the position shown in Fig. 3 for attaining setting position.

The stem 9, as shown, does not engage the arm 13 directly, but by means of a pusher or interposed piece 26, Fig. 5. This pusher can be arranged as seen in Fig. 5—that is, non-rotating—the wheel 8 being arranged to rotate about the pusher. This pusher being made of proper length the longitudinal movements or shifts of stem are accompanied by the shift of jaw 12 to the setting and winding position, as explained. In place of being non-rotating the pusher can have a feather connection with wheel 8 similar to stem 9, as shown by pusher 26' in Fig. 7. The stem 9, wheel 8, and pusher 26' now rotate together. The pusher 26' is shown tapped for the reception of screw 27, which can be set for holding the stem and pusher a suitable distance apart or in position or adjustment to cause the shifts of the stem to properly actuate the lever 13 12. As the stem and pusher 26' rotate together the set-screw 27, interposed therebetween, will not accidentally rotate.

When the parts are in winding position, as seen in Fig. 4, the stem 9 has been pushed inward. For opening or freeing the lid of so-called "hunting-cases" the stem 9 has to be given an inward thrust; but the compressibility of spring 15 allows lever 13 12 to swing for permitting this additional inward thrust, as required.

The lever-arm 13 is shown with a stud or piece 28, Fig. 7, bearing against the tail of arm 14. This stud 28 limits the swing of arm 14 away from arm 12. This stud can be made adjustable or to sit or screw more or less into arm 13, thereby allowing arm 14 more or less swing, as required. This adjuster or stop 28 is readily formed by a screw set more or less into the arm 13, according to circumstances.

Extending from one to another of arms 12 14 is a brace-piece 30, producing with these arms somewhat the shape of the letter A. This brace 30 is jointed or pivoted at 31 to arm 14 and has a pin-and-slot connection with arm 12. This pin-and-slot connection, or rather the slot of this connection, is in oblique or inclined position. When in setting position, Fig. 3, the yoke by stud 17 bears against arm 12 and brace 30, and this brace aids spring 15 in holding arm 12, so that the gear 4 cannot accidentally jump or force clear of gear 7 during the setting.

The actuation of the yoke by the arm 12 can be eased by letting this arm act against a friction-roller 32, Fig. 8, on stud 17.

The parts 9 and 26' being arranged adjustably with respect to one another avoid the necessity of adjustment being made at the case or inside the pendent portion of the case. In case it should be desired to lock the movement in setting position when out of the case a lock, such as a screw with mutilated head 33, Fig. 9, can be employed. The head 33 being turned to bring its full part into the way of slide 16 or arm 14 can be made to prevent the latter from moving to the winding position shown in Fig. 2.

What I claim as new, and desire to secure by Letters Patent, is—

1. A winding and setting mechanism and a spring for normally holding the mechanism in winding position, combined with a lever made to engage the mechanism, a spring made to engage the lever, a swinging arm against which said second spring is braced, a connection between said lever and arm, and a stem for taking the lever out of action substantially as described.

2. A winding and setting mechanism and a spring for normally holding the mechanism in winding position, combined with a lever made to engage the mechanism, an arm, a brace connecting said lever and arm, a spring made to engage the lever and arm, a stem made to engage the lever and a projecting piece made to contact with the case for moving the arm and lever with the mechanism to setting position substantially as described.

3. A winding and setting mechanism and a spring for normally holding the mechanism in winding position, combined with a lever made to engage the mechanism, an arm, and a spring and brace made to engage the lever and arm substantially as described.

4. A winding and setting mechanism and a spring made to normally hold the mechanism in winding position, combined with a lever made to engage the mechanism, an arm, a spring made to engage the lever and arm, and a brace jointed to the arm and having a pin-and-slot connection with the lever substantially as described.

5. A winding and setting mechanism and a spring made to normally hold the mechanism in winding position, combined with a lever, an arm, a spring made to engage the lever and arm, and a brace, said lever and brace being made to engage the winding and setting mechanism substantially as described.

6. A stem winding and setting mechanism, a lever for shifting said mechanism, a spring for normally moving said mechanism to winding position, a spring for moving the said mechanism to setting position, an actuating-wheel for said mechanism, a stem and pusher to engage the said lever and wheel, and means for adjusting the said stem and pusher with relation to each other, said stem and pusher being locked against rotation independently of one another, substantially as described.

7. A stem winding and setting mechanism, a lever for shifting said mechanism, a spring for normally moving said mechanism to winding position, a spring for moving the said mechanism to setting position, an actuating-wheel for said mechanism, a pusher to engage the said lever, a set-screw in one end of said pusher, and a stem non-rotatively connected with said wheel and adapted to be pressed against said screw, said pusher being non-rotatively connected with said wheel so that said stem, pusher and screw are locked against rotation independently of one another, substantially as described.

8. A stem winding and setting yoke having a stud provided with an antifriction-roller, a spring made to engage the yoke, a compound lever comprising an inner branch 12, an outer branch 14, a spring for separating the branches, and a brace 30 connected to said branches, said inner branch and brace being made to contact with the antifriction-roller substantially as described.

9. A winding and setting mechanism, a lever for shifting the mechanism, a swinging arm, a spring for spreading the lever and arm, and an adjuster or stop for limiting the spread of the lever and arm substantially as described.

10. A winding and setting mechanism, a spring for normally moving the mechanism to winding position, a spring for moving the mechanism to setting position, a lever and arm to which the spring is engaged, and a screw or lock for securing the arm, lever and

mechanism in setting position substantially as described.

11. A winding and setting mechanism and a spring for normally holding the mechanism in winding position, combined with a projecting piece or slide and a lever, said slide being made to contact with the case for moving the lever to carry the mechanism out of winding and into setting position when the movement is put into the case, and a stem made to engage the lever for freeing the lever from the mechanism and allowing the mechanism to return to its normal or winding position when the stem is pushed inward, said lever and slide when the movement is out of the case being clear from or releasing the mechanism so as to allow the mechanism to move to winding or normal position substantially as described.

12. A winding and setting mechanism and a spring for normally holding the mechanism in winding position, combined with a projecting piece or slide and lever, said slide be-

ing made to contact with the case for moving the lever to carry the mechanism out of winding and into setting position when the movement is put into the case, and a stem made to engage the lever for freeing the lever from the mechanism and allowing the mechanism to return to its normal or winding position when the stem is pushed inward, said lever and slide when the movement is out of the case being clear from or releasing the mechanism so as to allow the mechanism to move to winding or normal position and an eccentric screw 33 for locking the lever and mechanism in setting position when the movement is out of the case, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ABRAHAM ANZELEWITZ.

Witnesses:

W. C. HAUFF,
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