



# UNITED STATES PATENT OFFICE.

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## SETTING MECHANISM FOR WATCHES.

939,082.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, ABRAHAM PLEAN, a subject of the Czar of Russia, and residing in the borough of Brooklyn, in the city of New York, in the county of Kings, in the State of New York, have invented certain new and useful Improvements in Setting Mechanisms for Watches, whereof the following is a specification.

10 This invention relates to a setting mechanism for watches or other time pieces which is wholly independent of the winding mechanism.

15 The object of the invention is to provide a setting mechanism which is simple in construction, composed of few parts and easily operated.

Figure 1 of the accompanying drawings represents a front elevation of an open-faced watch embodying one form of this invention, parts being broken away to facilitate illustration. Fig. 2 represents in perspective on an enlarged scale the parts of this setting mechanism detached. Fig. 3 represents on an enlarged scale a segment of the top plate of the watch movement, showing the slot in which the setting mechanism is shifted to engage and disengage the dial train. Fig. 4 represents on an enlarged scale a radial section of a watch provided with this setting mechanism, the back portions of the case being indicated in dotted lines and the watch movement or works being omitted. Fig. 5 represents a plan view of a fragment of the underside of the top plate of a watch movement provided with this setting mechanism, showing in dotted lines the slotted section of the watch case and the dial train with which the setting mechanism engages to set the watch. Fig. 6 represents on the enlarged scale an edge view of a segment of the watch showing the peripheral slot in the case and the thumb wheel for actuating the setting mechanisms projecting therethrough.

The same reference numbers indicate corresponding parts in the different figures.

20 This invention may be embodied in or adapted to watches or time pieces of various types.

25 The invention is shown as embodied in an ordinary open-faced watch in which the watch case 10 is provided with a hollow pendant or case stem 15 to which the watch bow 20 is secured in the usual manner.

A crown or knob 25 on the case stem 10

serves its usual purpose as an actuating device for the winding mechanism not shown, which is wholly independent of the setting mechanism.

30 The case 10 is provided at its periphery in a plane between the top plate 30 of the works or watch movement and the dial 12 with a peripheral slot 11 and said top plate is provided with a vertical slot 31. The peripheral slot may be formed by a segmental recess in the dial seat or rib 14 of the top plate and a segmental recess 14' in the lid 10', or in any other suitable manner.

35 An ordinary central arbor 35 is provided as usual above the top plate 30 with a pinion 36 and above the dial 12 with a minute hand 40. A sleeve 45 is disposed on the central arbor 35 and extends through the central opening of the dial, said sleeve being provided underneath the dial in a plane above the pinion 36 with a gear wheel 46. An hour hand 50 having a tubular hub 51 is disposed on said sleeve above the dial.

40 A pivot stud 55 is secured to the top plate 30 adjacent to the central arbor 35 and a gear wheel 56 journaled on said stud engages the pinion 36 of the central arbor 35 and is provided with a toothed hub 57 which meshes with the gear wheel 46 of the hour hand sleeve 45. A stud 60 is fixed to the top plate 30 somewhat adjacent to the stud 55 and a gear wheel 61, adapted to turn on said stud, meshes with the gear wheel 56. Any suitable form of dial train may be employed is lieu of this just described.

45 A setting mechanism normally out of engagement with the dial train and adjustable into operative connection therewith to set the hands backward or forward, comprises a yielding thumb wheel 70 disposed beneath the dial 12 in a plane above the gear wheel 61. A portion of the periphery of the thumb wheel projects slightly through the slot 11 of the case 10 where it may be engaged by a finger or thumb. This wheel has preferably a milled edge and is provided on its underside or has fixedly connected with it a toothed pinion or hub 71 in the same plane with the wheel 61. A journal stud 72 projects downward from the hub 71 through the elongated slot 31 in the top plate 30. In the form shown this journal stud extends below said plate and is screw-threaded at its lower end. A round nut 75 is secured to the screw-threaded end of said stud journal, being provided with

holes 76 and 77 for the engagement of a turning implement used in applying said nut.

5 A spring 80 is secured at one end of the underside of the top plate 30 and bears at its free end against the periphery of said nut. The wheel 70 is thus provided with a shifting journal which plays in the slot 31 and is normally held at the outer end thereof  
10 by the spring 80. In such position the periphery of the wheel 70 projects beyond the periphery of the lid of the case but preferably not beyond the periphery of the central part or body of the case.  
15 In the operation of this setting mechanism a finger or thumb is passed over the periphery of the watch case at the slot 11 and a pressure thereof against the projecting periphery of the actuating thumb wheel 70  
20 pushes said wheel inward and causes the shifting journal 72 to move toward the center in the slot 31 against the tension of the spring 80. By this movement the pinion 71 is thrown into gear with the wheel 61 and  
25 the lateral movement in either direction of

the finger or thumb passing over the edge of the wheel 70 turns said wheel in one direction or the other as desired and operates the dial train to set the hands either backward or forward.

This setting mechanism is simple, being composed of but three parts, and it is operated with facility by the inward and lateral pressure of a single finger or thumb.

I claim as my invention—

30 The combination of a watch case provided with a peripheral slot, a watch works disposed in said case and provided with a dial train and with a guide slot adjacent to said train, a sliding stud journal adapted to play  
40 in said guide slot, a pinion fixed on said stud journal and movable therewith into and out of gear with said dial train, and a yielding thumb wheel also fixed on said stud journal and having a portion of its periph-  
45 ery projecting through said case slot.

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Witnesses:

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