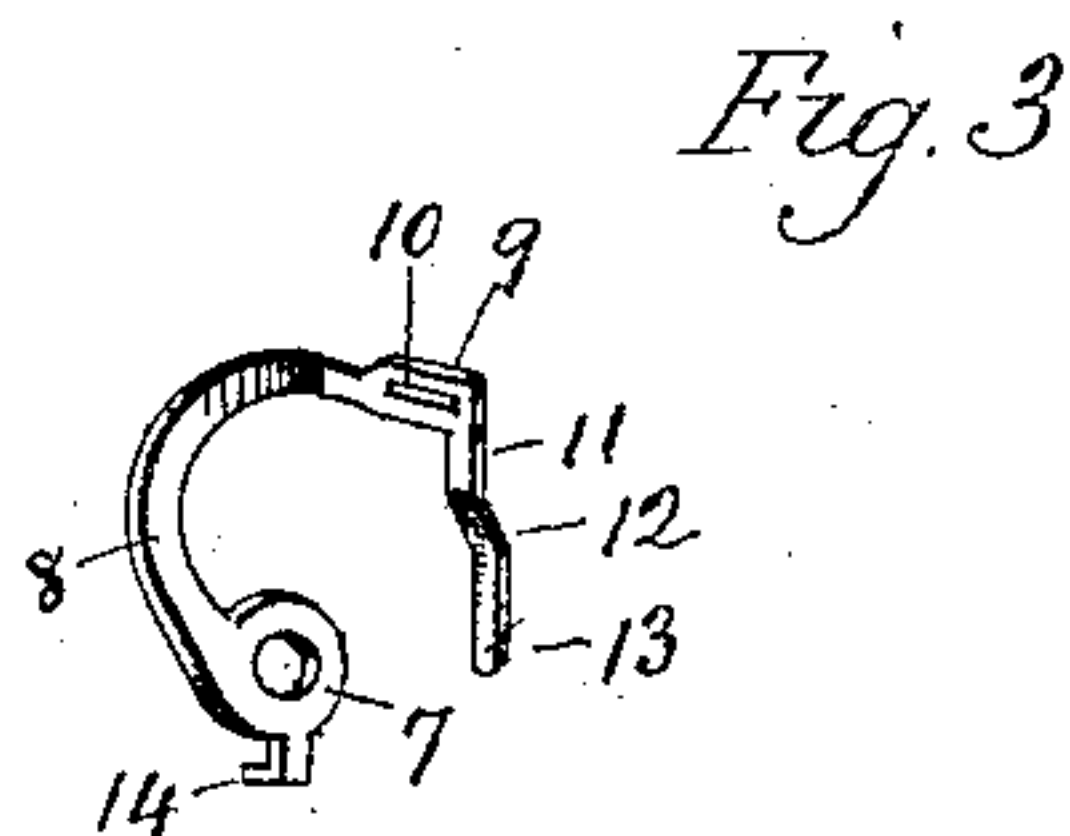
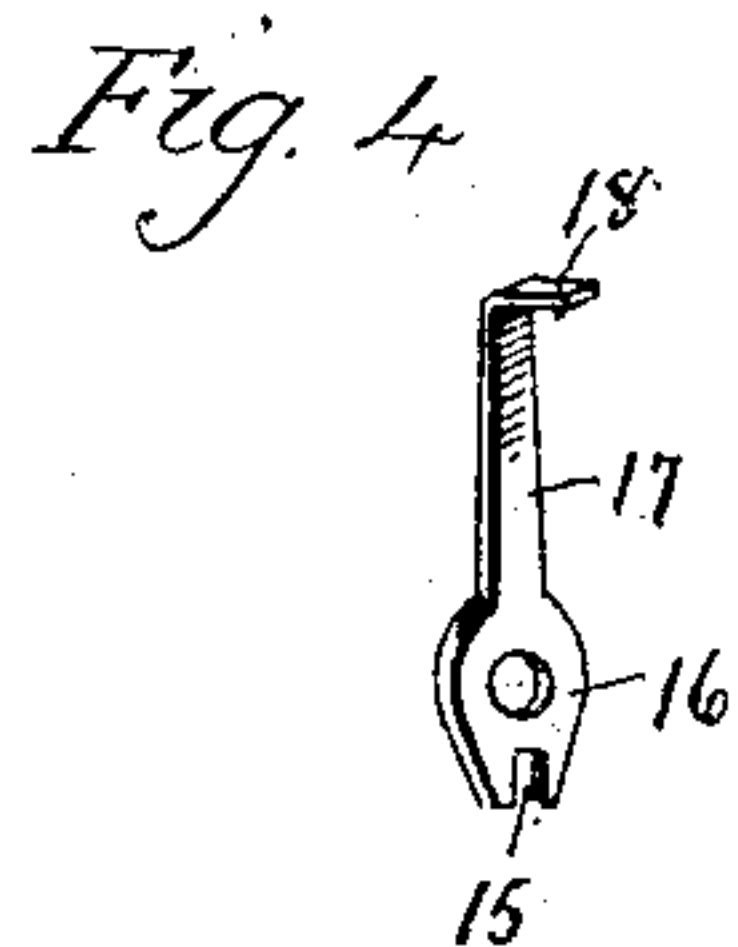
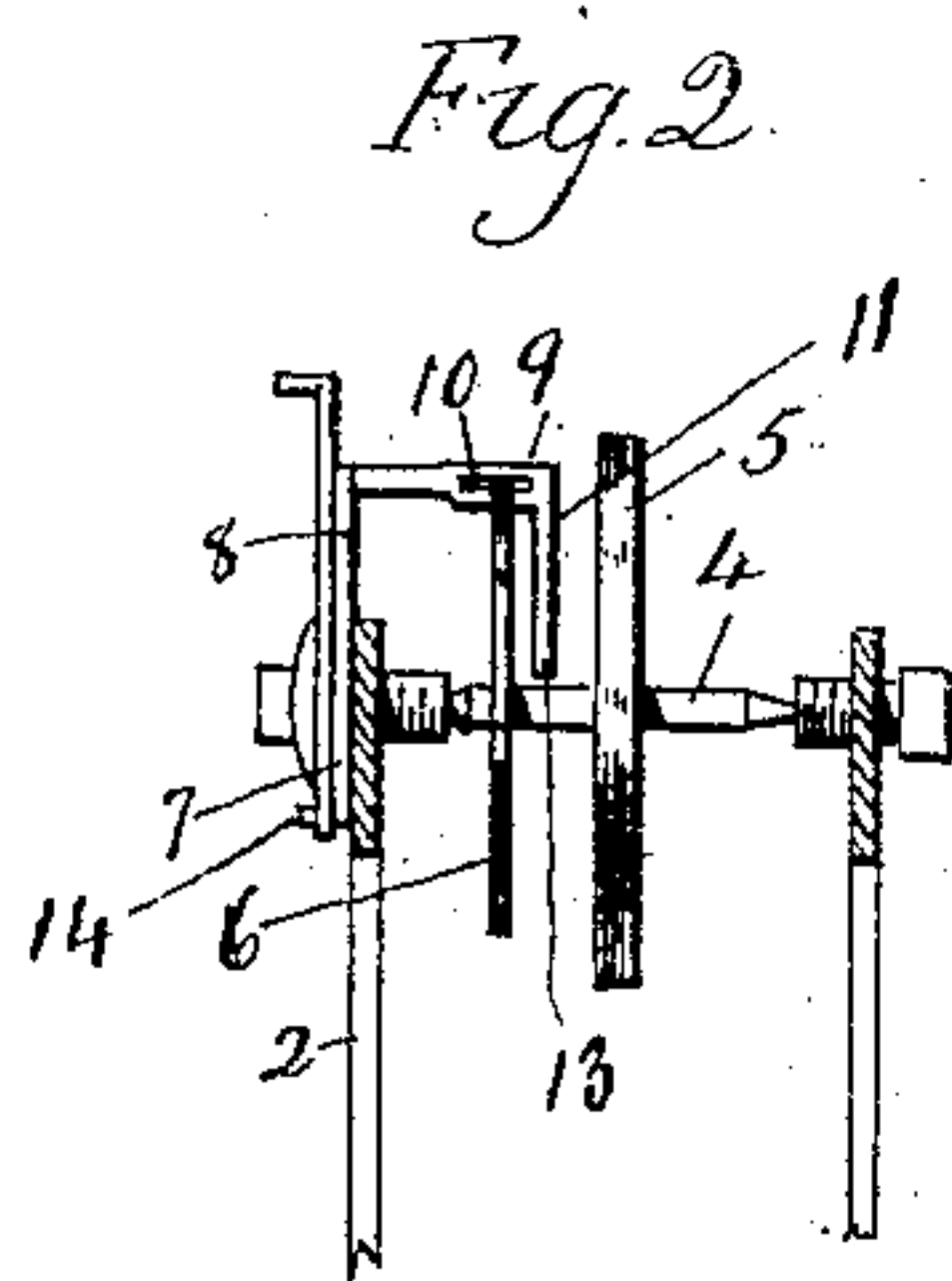
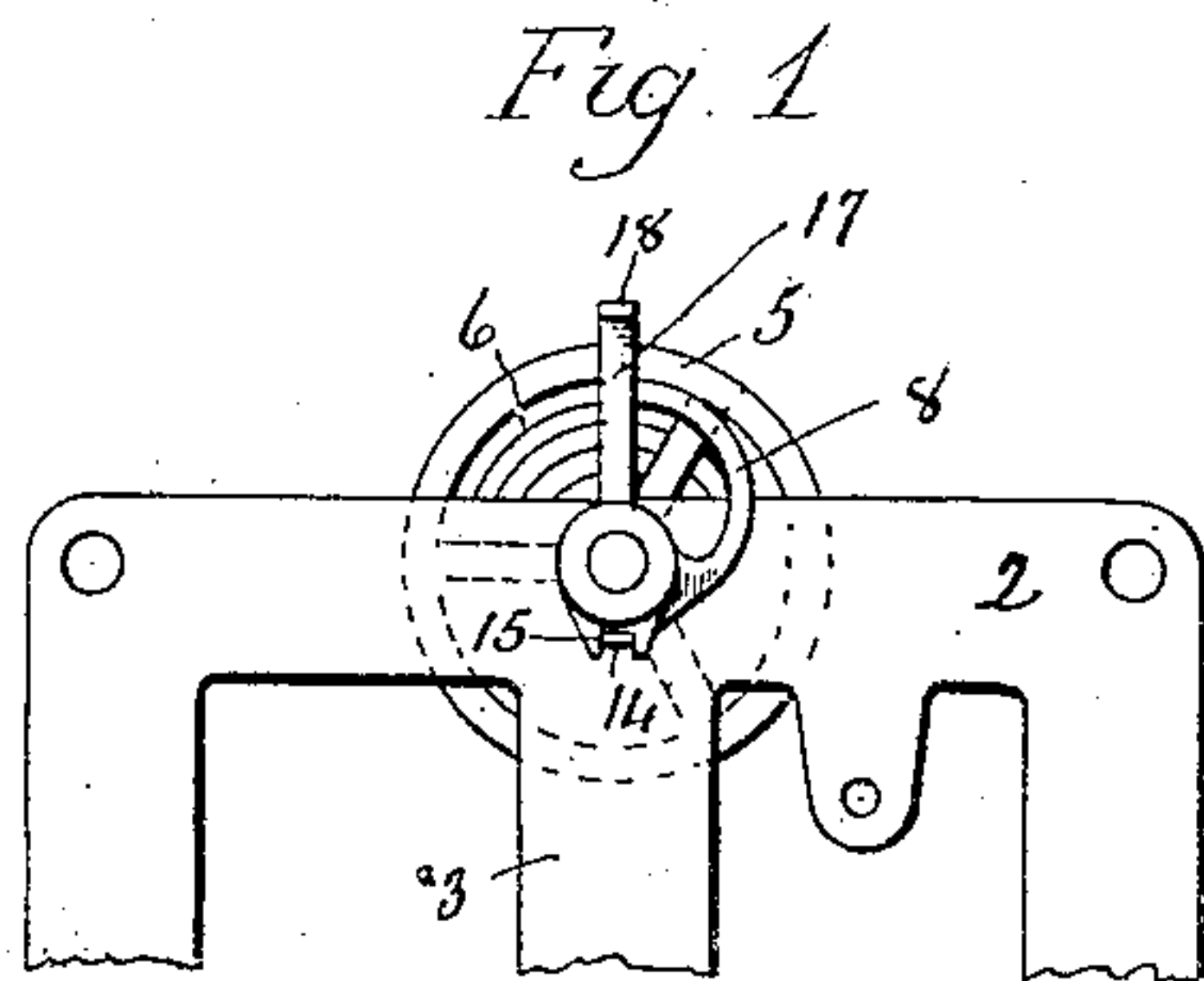


No. 842,431.

PATENTED JAN. 29, 1907.

S. SLOAN.
REGULATOR FOR TIMEPIECES.
APPLICATION FILED MAR. 12, 1906.



Witnesses.

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SAMUEL SLOAN, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE WATERBURY CLOCK CO., OF WATERBURY, CONNECTICUT, A CORPORATION.

REGULATOR FOR TIMEPIECES.

No. 842,431.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed March 12, 1906. Serial No. 305,433.

To all whom it may concern:

Be it known that I, SAMUEL SLOAN, a citizen of the United States, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Regulators for Timepieces; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the numerals 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 broken view, in rear elevation, of a portion of a timepiece, showing my improved regulator thereon; Fig. 2, a broken view, in vertical section, showing the regulator in side elevation; Fig. 3, a perspective view of the spring-guard; Fig. 4, a perspective view of the operating-arm therefor.

This invention relates to an improvement in regulators for timepieces, and particularly for the regulators of the hair-springs of marine time movements, and is an improvement on the invention shown and described in United States Patent No. 666,997, granted January 29, 1901, to the assignee of this application.

The invention of the patent above referred to had for its object the construction of a regulator particularly adapted for preventing the hair-spring from fouling with it and included a downwardly-projecting bowed arm and an inwardly-extending spring-receiving arm, which latter arm extended inward from the plane of the face of the rear plate below the upper edge thereof.

The object of this invention is to provide a regulator having the advantages of the regulator of the prior patent, which may be used in connection with a frame-plate which is closed or solid at a point below the regulator, and so that it is necessary to employ an upwardly-extending and inwardly-turned arm; and the invention consists in providing a regulator with an arm extending upward, thence inward over the top of the plate, and downward as a guard for the hair-spring, and in other details of construction and arrangements of parts, as will be hereinafter described, and particularly recited in the claims.

As shown in the drawings, my improved regulator is adapted for use with a frame-plate 2, formed with a solid central portion 3,

directly above which the staff 4 of the balance-wheel 5 is mounted and with which the hair-spring 6 is connected in the usual way. The regulator comprises a hub 7, upwardly-projecting bowed arm 8, inwardly-turned spring-receiving arm 9, provided with a slot 10 for engagement with the hair-spring 6, and a downwardly-extending upper reach 11, a shoulder or bend 12, and a lower reach 13. On the hub 7 is an outwardly-extending lug 14 to engage with a notch 15, formed in the hub 16 of a regulator-arm 17, which is pivoted to the plate 6 with the hub 7 and extends upward above the case, where it is provided with the usual finger-piece 18, the parts being so connected that moving the finger-piece 18 will turn the arm 8, and hence adjust the hair-spring 6 in the usual way. The reaches 12 and 13 form a guard preventing the hair-spring from fouling with the regulator, a difficulty well known and clearly set forth in the patent above referred to.

I claim—

1. The combination with a frame-plate having a central portion, of a regulator above said central portion and adapted to be pivotally secured to the back plate and consisting of a hub, an upwardly-extending bowed arm, an inwardly-extending spring-receiving arm, a spring fender or guard, and an operating-arm formed independent of and interlocked with the said hub whereby the turning of the operating-arm will turn the spring-receiving arms, substantially as described.

2. The combination with a frame-plate having a central portion, of a regulator adapted to be pivotally secured to the back plate above said central portion and consisting of a hub, an upwardly-extending bowed arm, an inwardly-turned spring-receiving arm and downwardly-extending fender said hub formed with an outwardly-projecting lug and an operating-arm including a notched head for engagement with said lug, said lug extending upward when turned to receive the spring-receiving arms, substantially as described.

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

SAMUEL SLOAN.

Witnesses:

CLEMENT I. GRIGGS,
CLARENCE W. SHODER.