

No. 869,809.

PATENTED OCT. 29, 1907.

C. A. SLOAN.

RUBY PIN SETTER.

APPLICATION FILED JUNE 29, 1907.

Fig. 1

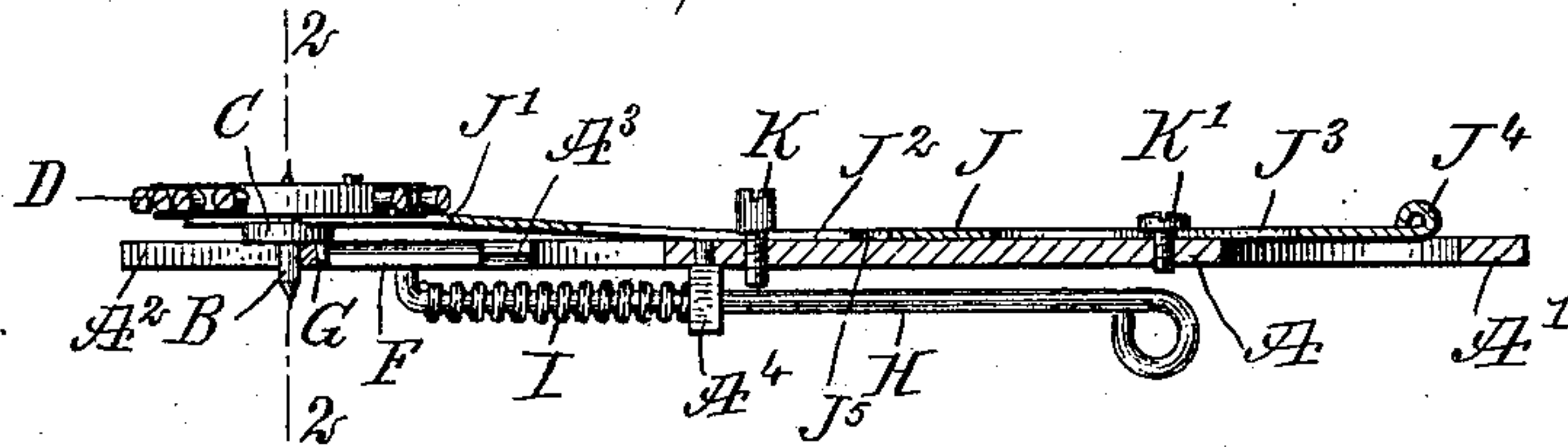


Fig. 2

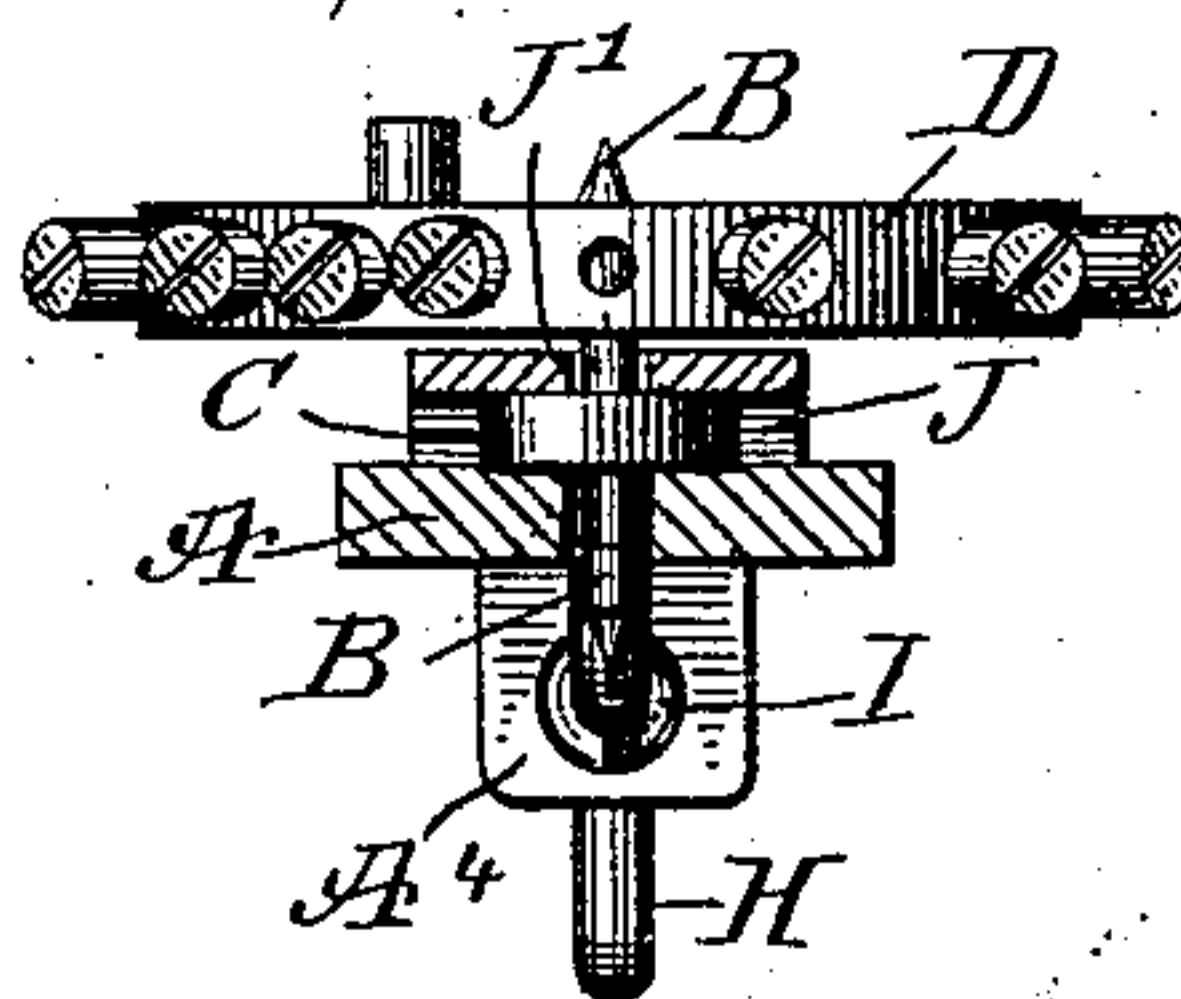


Fig. 3

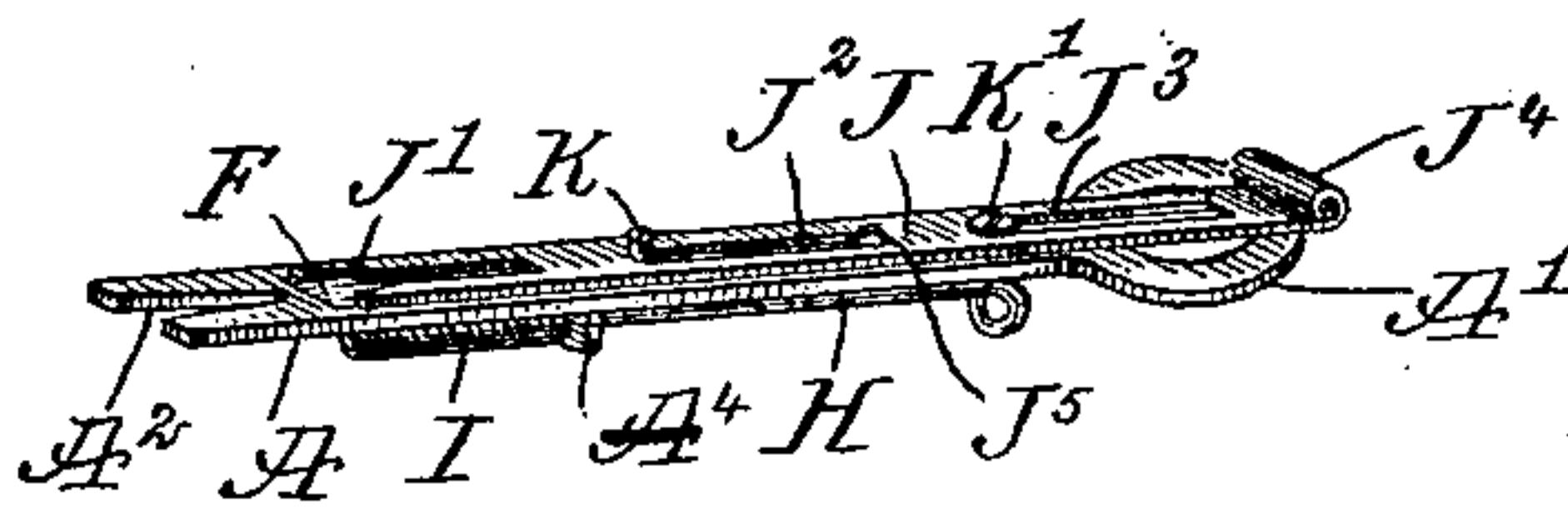
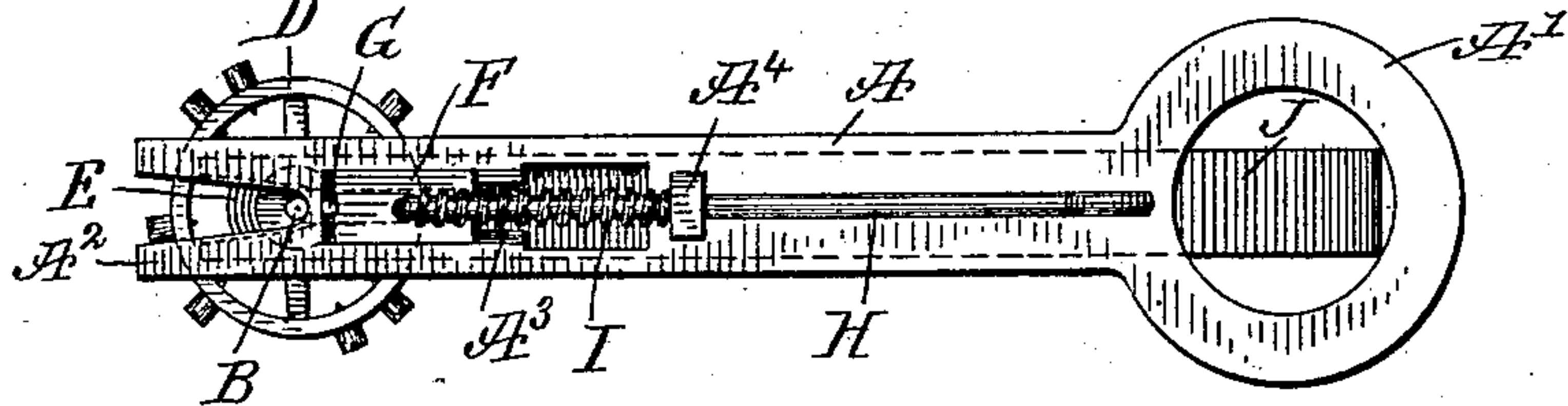


Fig. 4

WITNESSES

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# UNITED STATES PATENT OFFICE.

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## RUBY-PIN SETTER.

No. 869,809.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed June 29, 1907. Serial No. 381,472.

*To all whom it may concern:*

Be it known that I, CHARLES A. SLOAN, a citizen of the United States, and a resident of Ozark, in the county of Franklin and State of Arkansas, have invented a new and Improved Ruby-Pin Setter, of which the following is a full, clear, and exact description.

The invention relates to watchmakers' tools, and its object is to provide a new and improved ruby pin setter, which is simple and durable in construction and arranged to permit convenient, quick and accurate setting of the ruby pin in the roller table of a balance, without requiring removal of the hair spring or the roller table from the balance staff, and to permit the use of the device for any size balance staff.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal sectional elevation of the improvement as applied; Fig. 2 is an enlarged transverse section of the same on the line 2—2 of Fig. 1; Fig. 3 is an inverted plan view of the same, and Fig. 4 is a perspective view of the improvement.

The plate A of the ruby pin setter terminates at one end in a ring A' and at its other end in a fork A<sup>2</sup> for the reception of the balance staff B of a balance having the usual roller table C, the balance wheel D and the hair spring E. In the plate A adjacent to the forked end A<sup>2</sup> is arranged a longitudinally extending guideway A<sup>3</sup> on which is mounted to slide a slide F adapted to engage and clamp the ruby pin in position on the plate A, as plainly indicated in Fig. 3. The slide F is provided with a handle H extending rearwardly and passing through a bearing A<sup>4</sup> attached to the plate A, and on the said handle H is coiled a spring I resting with one end on the slide F and abutting with its other end against the bearing A<sup>4</sup> so as to normally hold the slide F in a closed position, that is, to securely hold the ruby pin G in position on the plate A. On the top of the plate A is mounted to slide lengthwise a support J, preferably in the form of a spring plate, terminating at its forward end in a fork J' and provided with longitudinally extending slots J<sup>2</sup>, J<sup>3</sup> engaged by screws K, K' screwing in the plate A and serving to guide the support J in its longitudinal movement on the plate A. The rear end of the support J is provided with a handle J<sup>4</sup> adapted to be taken hold of by the operator, to shift the support lengthwise on the plate A. The screw K besides forming one of the guide pins for the support J, also serves to fasten the support J in place on the plate A for the purpose hereinafter more fully described. The slot J<sup>2</sup> has its side walls somewhat en-

larged as at J<sup>5</sup>, for the passage of the head of the screw K, whenever it is desired to place the support J in position on the plate A.

In using the device, the operator first pulls the slide F rearwardly to allow convenient insertion of the ruby pin G, after which the slide F is released to allow the same to close and clampingly hold the ruby pin G in position in the plate A. The operator next shifts the support J outward, and then engages the forked end J' of the support with the roller table C between the top thereof and the under side of the balance wheel D, as plainly indicated in the drawings, and then the support J with the balance thereon is slid rearwardly until the aperture in the roller table C is in register with the ruby pin G, after which the support J is fastened in place by screwing up the screw K. The operator now, by the use of a suitable tool, presses the ruby pin into the registering aperture in the roller table C, after which the plate A is engaged by a pair of tweezers or a like tool, and shellac is placed on the roller table at the ruby pin, and then the ring-shaped end A' of the plate A is held over the flame of a lamp to heat the plate A and thereby cause melting of the shellac, so that the latter in the melted state securely fastens the ruby pin in place on the roller table C. When this has been done, the device with the balance thereon is left to cool, and then the screw K is loosened to unlock the support J, after which the slide F is caused to slide rearward and the support J is bent upward to disengage the ruby pin G from the plate A, with a view to allow convenient pulling out of the balance from the forked end J' of the plate J. Now from the foregoing it will be seen that the ruby pin G can be readily inserted in the roller table C, without disconnecting the roller table from the staff B and without danger of taking out the temper of the hair spring E of the balance.

It is understood that when the plate A when heated as above described, simply heats the ruby pin G and the roller table C, sufficiently to melt the shellac without affecting the temper of the hair spring E.

The ruby pin setter shown and described is very simple and durable in construction, and enables a watchmaker or other person to conveniently and accurately fasten the ruby pin in place in the roller table.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A ruby pin setter comprising a plate having a guideway and a forked end for the reception of the staff, a manually controlled spring-pressed slide in the said guideway for clamping the ruby pin in place in the plate, and a support for engagement with the roller table and mounted to slide on the said plate in the direction of the length thereof.

2. A ruby pin setter comprising a plate having a guideway and a forked end for the reception of the staff, a manually controlled spring-pressed slide in the said guideway for clamping the ruby pin in place in the plate, a



support for engagement with the roller table and mounted to slide on the said plate in the direction of the length thereof, and means for fastening the said holder in place on the said plate.

- 5 3. A ruby pin setter comprising a plate having a guide-way and a forked end for the reception of the staff, a manually controlled spring-pressed slide in the said guide-way for clamping the ruby pin in place in the plate, and a forked support for engagement with the balance wheel  
10 between the roller table and the balance wheel to support the balance, the said support being mounted to slide on the said plate in the direction of the length thereof.

- 15 4. A ruby pin setter comprising a plate having a guide-way and a forked end for the reception of the staff, a manually controlled spring-pressed slide in the said guide-way for clamping the ruby pin in place in the plate, a forked support for engagement with the balance wheel be-

tween the roller table and the balance wheel to support the balance, the said support being mounted to slide on the said plate in the direction of the length thereof, and  
20 a screw for securing the support in place on the said plate.

5. A ruby pin setter comprising a plate having clamping means for holding the ruby pin in place, a support for the balance, slidable on the said plate and having a forked end for engagement with the roller table between the lat-  
25 ter and the balance wheel and means for fixing the support with respect to the plate.

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

CHARLES A. SLOAN.

Witnesses:

J. P. CLAYTON,  
FRED A. SLOAN.