

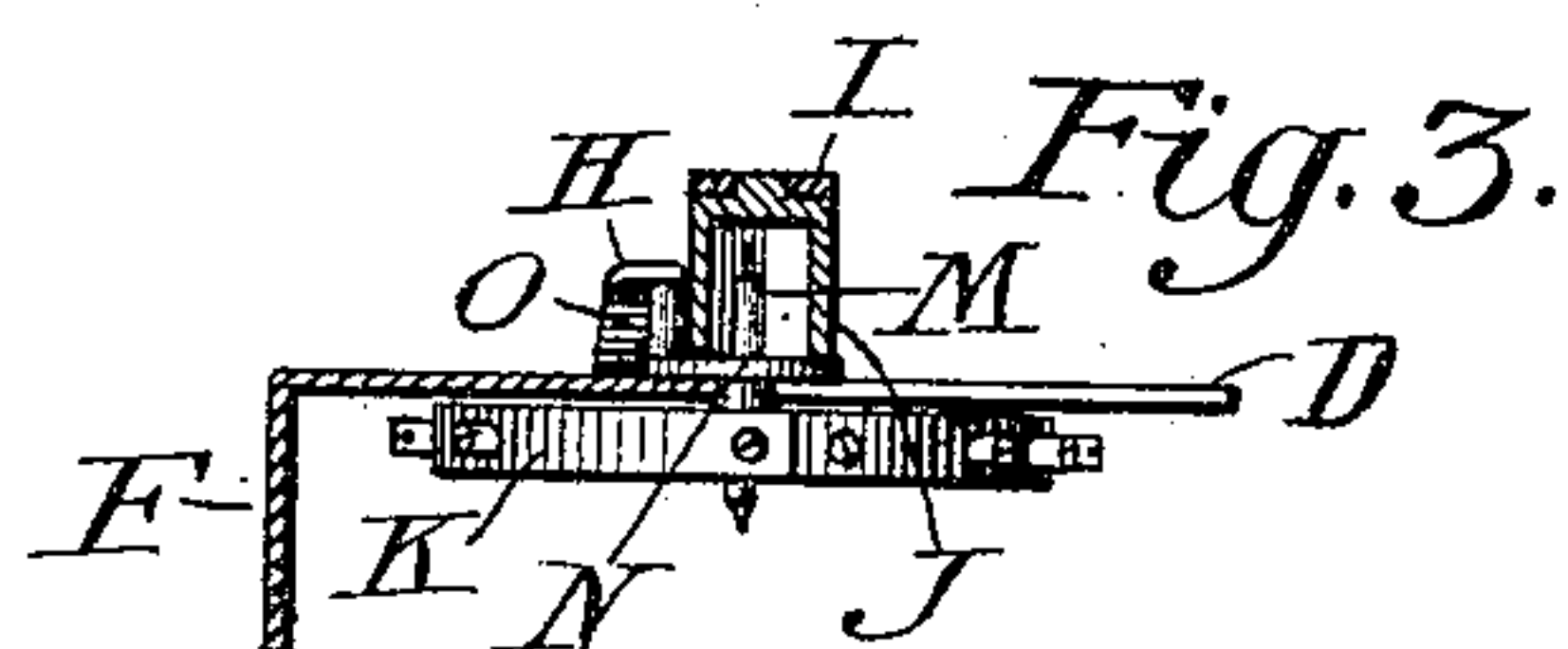
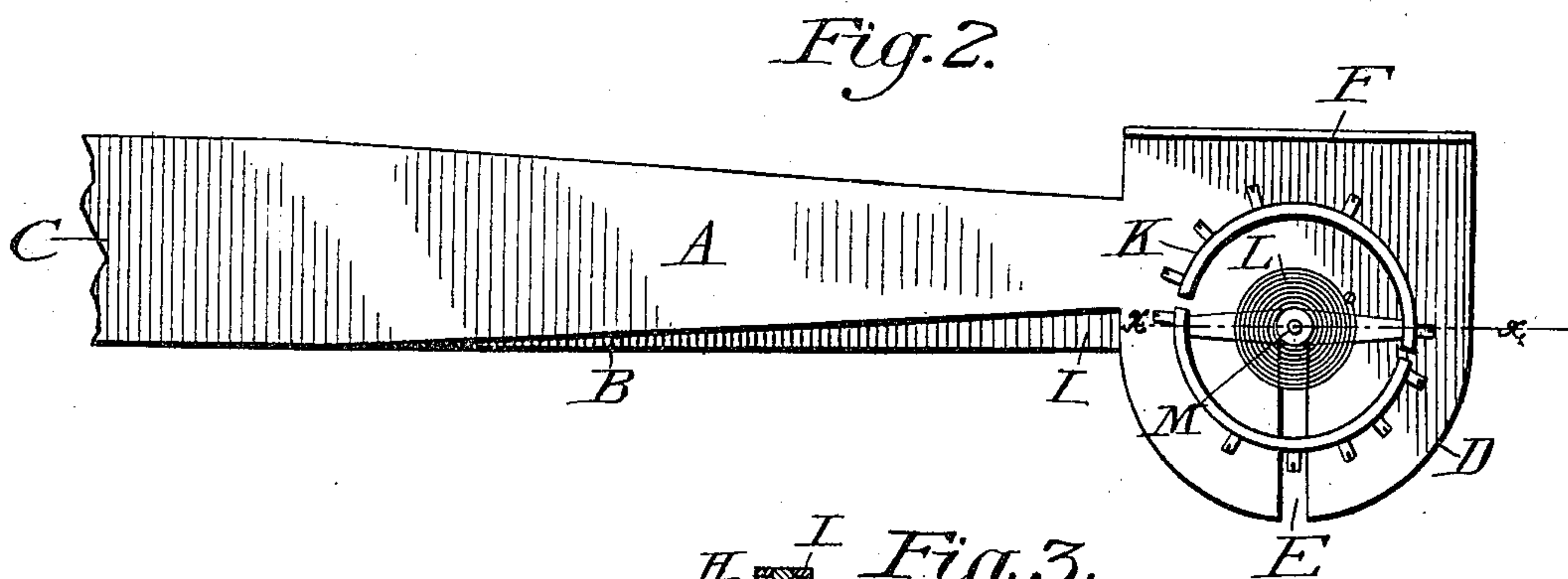
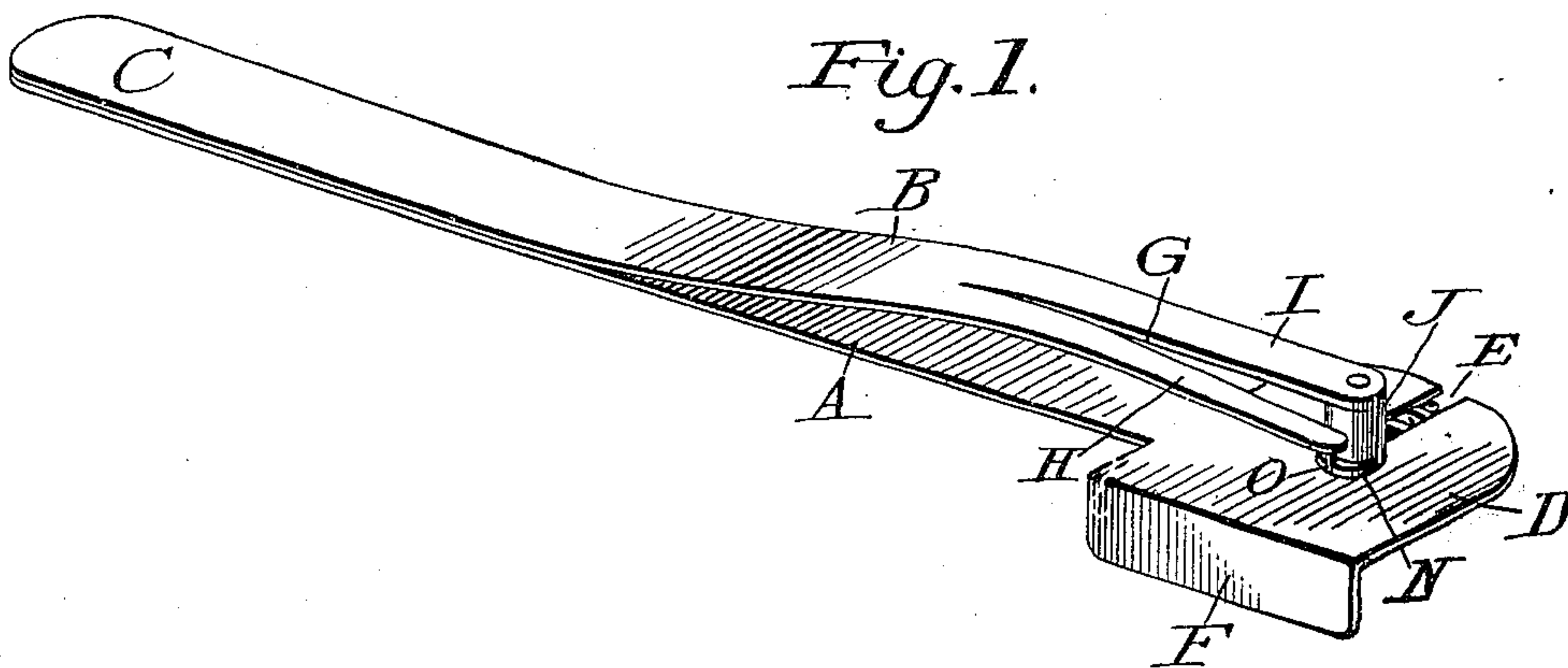
No. 654,124.

Patented July 24, 1900.

C. J. ADAMS.
ROLLER JEWEL SETTER.

(Application filed Apr. 23, 1900.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES J. ADAMS, OF MILTON, FLORIDA.

ROLLER-JEWEL SETTER.

SPECIFICATION forming part of Letters Patent No. 654,124, dated July 24, 1900.

Application filed April 23, 1900. Serial No. 13,913. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. ADAMS, a citizen of the United States, residing at Milton, in the county of Santa Rosa and State of Florida, have invented a new and useful Roller-Jewel Setter; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part thereof.

10 The object of my invention is the provision of means adapted to receive and support the balance-wheel of a watch and at the same time expose the edge of the roller and roller-jewel only, the other parts of the balance-wheel being isolated and covered, so that
15 when the roller-jewel is being set the heat employed will not come in contact with and injure the balance-staff and hair-spring or other parts of the wheel.

20 With this end in view my invention consists in a tool comprising two arms, one of said arms being provided with a slotted plate and the other with two branches, one of them having a cylindrical hollow cap and the other
25 adapted to bear upon the end of a roller-jewel while the same is being set.

It further consists in certain novelties of construction and combinations of parts hereinafter described, and pointed out in the
30 claims.

The accompanying drawings illustrate an example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the application
35 of the principle.

Figure 1 is a view in perspective showing the tool with the balance-wheel adjusted thereto, the roller-jewel and edge of the roller only being exposed and the parts being in the relative positions they occupy preparatory to the
40 act of permanently setting the jewel. Fig. 2 is an enlarged plan view of the under side of the tool shown in Fig. 1. Fig. 3 is a section taken on line *xx* of Fig. 1.

45 Referring to the several figures, the letter A designates the bottom arm of the tool, which is preferably made of spring metal; B, the top arm, also of spring metal; C, the united ends of the arms forming a handle; D, a plate
50 at the free end of the bottom arm; E, a narrow open slot in the plate, and F a flange

turned so as to lie in a plane at a right angle to the plane of the plate.

G is a slit in the upper arm dividing the same into two branches; H, one of the branches
55 slightly sprung downwardly from the plane of the upper arm; I, the other branch of the arm, and J a hollow cap secured to the end of the branch I and upon the under side thereof.

K is a balance-wheel; L, an ordinary hair-spring; M, the balance-staff; N, a roller or circular collet, and O the roller-jewel or ruby-pin.
60

In using the tool the arbor or balance-staff between the roller and wheel is adjusted in
65 the slot E so that the wheel and hair-spring will occupy a position below the plate and the roller be in contact with the top surface, the free end of the staff projecting upwardly within the hollow cap J and the edge of the
70 roller and the roller-jewel lying outside the cap in an exposed position, as shown in Fig. 1. The spring branch H of the upper arm will bear downwardly upon the end of the jewel and hold it in its proper position. Gum-shel-
75 lac can now be applied to the joint formed by the union of the roller and roller-jewel and melted by means of a flame and blowpipe.

From the foregoing it will be obvious that I have produced means in the form of a tool
80 which fulfils all the conditions set forth as the object or end of my invention.

The edge of the roller and roller-jewel only are exposed. The balance-staff is protected by the cap, and the wheel and hair-spring are
85 isolated from the flame by means of the plate.

In ordinary practice when setting the roller-jewel the roller must be removed from the balance-staff. The use of my invention obviates this necessity, and consequently effects
90 a great saving of time and labor.

While I have illustrated and specifically described only one example of the physical embodiment of my invention, I do not thereby intend to limit the scope thereof to the exact
95 details of construction, inasmuch as in its manufacture colorable changes may be introduced without constituting a substantial departure.

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

1. A roller-jewel setter comprising an up-

per arm and a lower arm; said upper arm having at its free end a hollow cap; and said lower arm having a slotted plate; in substance as set forth.

5 2. A roller-jewel setter comprising an upper arm and a lower arm; said upper arm having two branches, one of them being of spring metal and the other provided with a hollow cap; and the lower arm having a slot-
10 ted plate; in substance as set forth.

3. A roller-jewel setter having two arms; one of the said arms provided with a slotted plate, and the other arm having means for

inclosing the projecting end of the balance-staff and covering the top surface of the roller, 15 with the exception of that part occupied by and adjacent the roller-jewel.

4. A roller-jewel setter comprising a slotted arm, A, having flange, F; and an arm, B, having two branches, H and I, the branch, I, being provided with a hollow cap; the ends of the arms being united to form a handle. 20

CHARLES J. ADAMS.

Witnesses:

W. A. McLEOD,
JOSEPH MASON.