

(No Model.)

R. N. BROMLEY.

JEWELER'S TOOL.

Patented May 12, 1896.

No. 559,840.

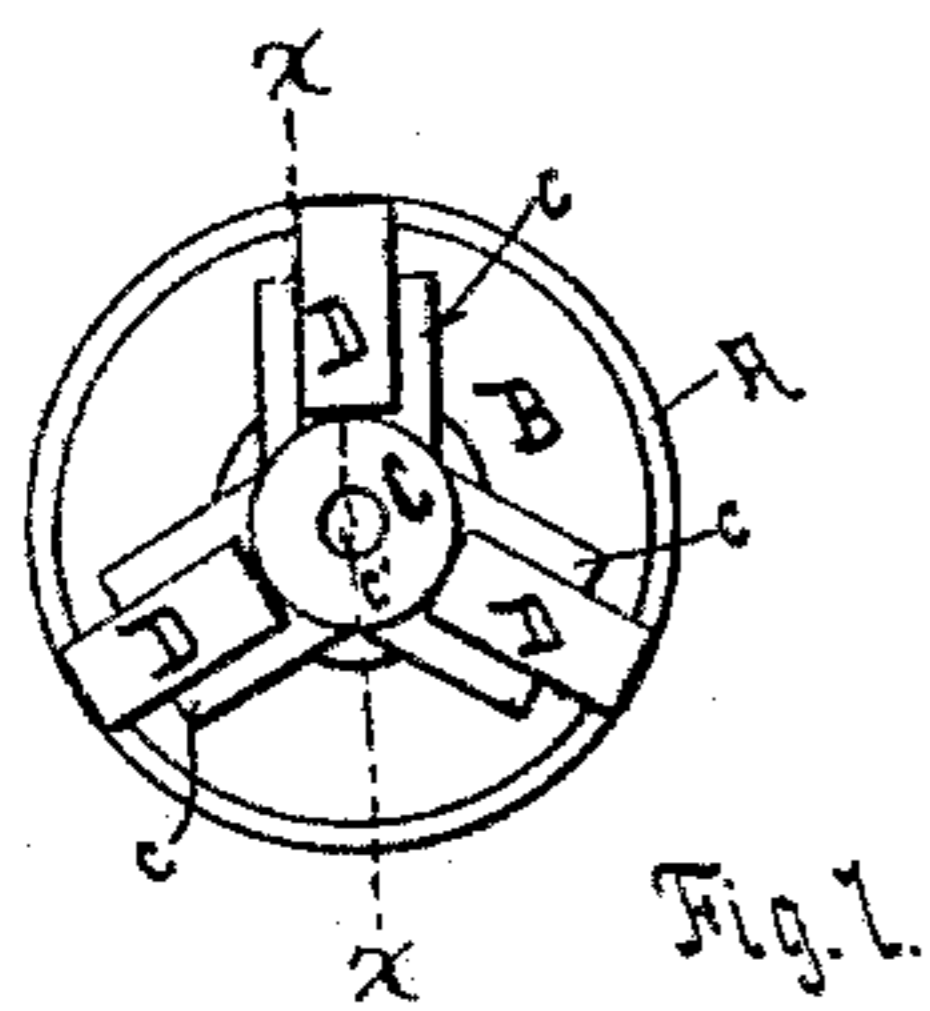


Fig. 1.

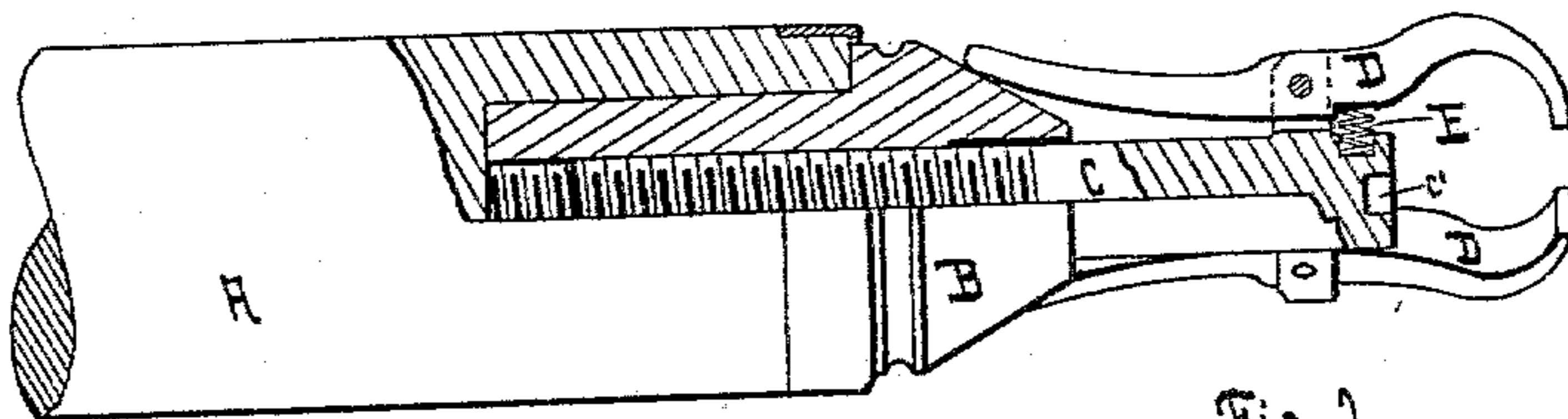


Fig. 2.

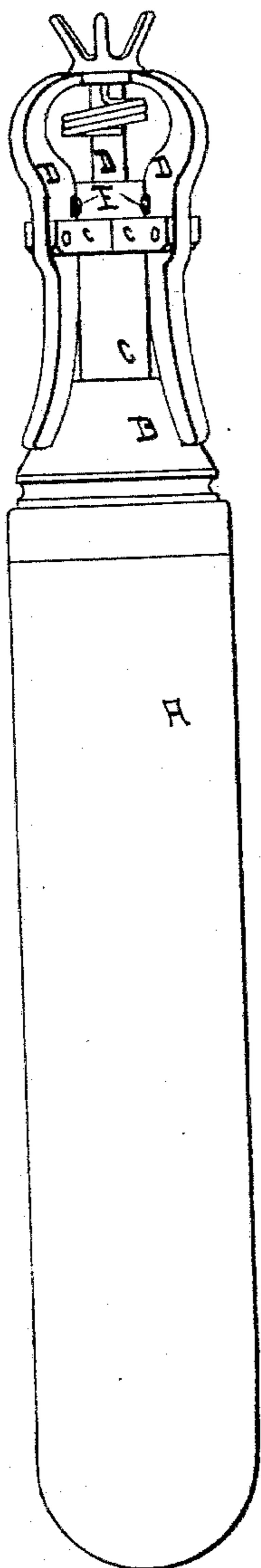


Fig. 3.



Fig. 4.

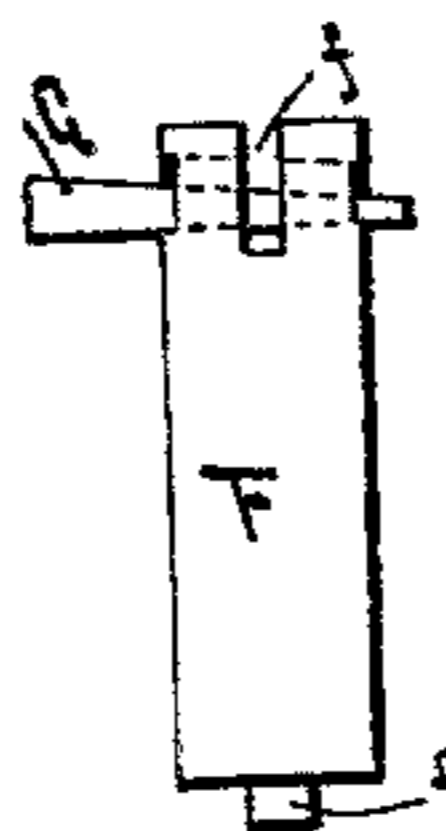


Fig. 5.

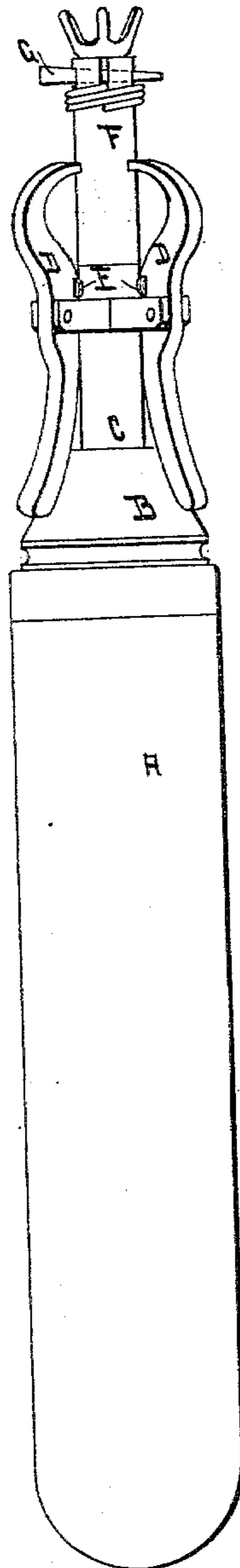


Fig. 6.

Witnesses.
L. M. Van Antwerp
D. G. Van Antwerp

Inventor.
Robert N. Bromley
By his Attorney,
W. A. Ballard.

UNITED STATES PATENT OFFICE.

ROBERT N. BROMLEY, OF DES MOINES, IOWA.

JEWELER'S TOOL.

SPECIFICATION forming part of Letters Patent No. 559,840, dated May 12, 1896.

Application filed July 20, 1894. Serial No. 518,080. (No model.)

To all whom it may concern:

Be it known that I, ROBERT N. BROMLEY, a citizen of the United States, and a resident of the city of Des Moines, county of Polk, and State of Iowa, have invented a new and useful Jeweler's Tool, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part hereof.

10 The object of my invention is to provide a suitable and convenient tool wherewith to hold jewel-settings during the process of placing the jewel in position. Heretofore this work has been done by bedding the setting in shellac that its base might be held 15 firmly, and then, when the jewel was properly placed and secured, melting the shellac from about the setting. This method is open to several objections, viz: By so bedding the 20 setting in an opaque mass, necessarily coming up more or less on the sides of the setting, the adjustment of the jewel in the proper plane relative to the setting is a matter of some uncertainty even with the most careful 25 painstaking labor, and if, as too frequently happens from this cause, the work proves faulty, necessitates its repetition until the desired result is reached. Further, after the jewel has been properly set it is necessary to 30 remove the shellac by melting or softening by heat—an operation requiring the greatest care lest the jewel itself be injured by the heat—and afterward boiling the setting and jewel in alcohol to remove such shellac as has 35 adhered thereto, the whole operation described being slow, laborious, and expensive.

40 With my improved device bedding jewel-settings in shellac is wholly dispensed with and the operation of securing the setting in position to be worked at is as expeditious and as convenient as putting a piece of metal in a bench-vise.

45 The tool the subject of this improvement is that described herein, and illustrated in the accompanying drawings, in which—

50 Figure 1 is an end view of the tool as used for handling a setting with an outside "base." Fig. 2 is a sectional view on the line *xx* of Fig. 1. Fig. 3 is a side view of the tool with a jewel-setting with an outside base portion in position. Figs. 4 and 5 are respectively top and side of an auxiliary piece used in

holding jewel-settings with an inside bar or those without a base proper. Fig. 6 is a side view of the tool with this auxiliary piece as 55 used in handling a setting without a base or one with an inside bar.

Similar letters of reference refer to similar parts throughout the several views.

60 As described in Figs. 1, 2, and 3, this tool consists, essentially, of a handle portion A and a sharply-tapered piece B at the end of said handle, said tapered nut B being interiorly threaded to receive a screw C. The outer 65 end of this screw C has around itself at equal spaces three lugs *c*, each of which lugs is slotted to receive a pivoted jaw D, of which jaws one end of each extends backward toward the handle until it rests on the tapered 70 portion of the piece B, and the other end is extended beyond the lug in which it is pivoted, curved slightly outward, and then recurved inward until its end is in proximity to the 75 axial line of the handle A and screw C. A spring E, interposed between the outer end of the jaws D and the lug *c*, just in front of the pivots upon which said jaws are mounted, keeps said jaws in a normally-opened position—that is, with their rearwardly-extending 80 ends pressed down against the tapered portion of the nut B.

85 From the construction shown and above described it will be clear that by holding the outer end of the screw C in a fixed position and turning the handle A, which latter carries the taper-nut B, as shown, the said nut 90 will be drawn between the rearward ends of the pivoted jaws D and pushing these ends apart will close the forward recurved ends in toward each other and will cause them to 95 grasp and hold, after the manner of the jaws of a chuck, any object which may have been placed between them before this closing operation was begun, as shown in Fig. 3, which 100 illustrates a jewel-setting held in this manner, ready for the operation of having a jewel set therein.

For holding certain jewel-settings which have no base upon which the jaws D may be closed an auxiliary piece F and wedge-pin G 100 are provided. This piece has a slot *f* across one end thereof sufficiently deep to receive the shank of a setting of the class under consideration. The said shank is dropped into

the slot, the wedge-pin G being withdrawn, and the wedge-pin G again inserted, which holds the setting securely on the piece F. This piece F is now put into the tool in the same manner as a jewel-setting with a base, above described. To insure the alinement of the piece F with the axis of the handle A, a stud f' is turned on the bottom end of the said piece F at its center of section and a corresponding hole c' bored in the outer end of the screw B, and in assembling the parts for the operation under consideration the said stud f' is set in the hole c' , which when the jaws are closed upon the body portion of the piece F insure the proper alinement of the latter, and its secure holding as well, as shown in Fig. 5.

It will be readily seen from the foregoing description and the accompanying drawings that the improved tool herein described affords a ready means for handling jewel-settings without recourse to the inconvenient, unsatisfactory, and expensive operation of bedding in shellac, hereinbefore described, and that it represents a substantial advance in the art, heretofore not known nor practiced.

It is obvious that the curved forms of the jaws D are essential in holding an object that is larger below the point at which it is engaged by the jaws, as shown in Fig. 3.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. In a jeweler's tool, the combination of a handle having a nut in its end and the free end of the nut tapering, a screw fitted in said nut and provided with spring-actuated jaws, and a socket in its outer end, and a setting-holder having a stud fitted in said socket, for the purposes stated.

2. A jeweler's tool comprising a handle having a fixed nut in its end and the outer end of the nut tapering, a screw carrying spring-actuated jaws to engage the tapering end of the nut and provided with a socket at its outer end to admit the end of a setting-holder, and a setting-holder fitted in said socket, arranged and combined to operate in the manner set forth for the purposes stated.

3. A jeweler's tool, comprising a handle A, tapered nut B, screw C having lugs c thereon, and a socket c' in the end thereof, jaws D pivoted in said lugs, springs E interposed between said jaws D and the screw C, an auxiliary piece F with slot f and stud f' , and a wedge-pin G, substantially as described, and for the purposes stated.

ROBERT N. BROMLEY.

Witnesses:

THOS. E. MCGAVRAN,

W. A. BALLARD.