

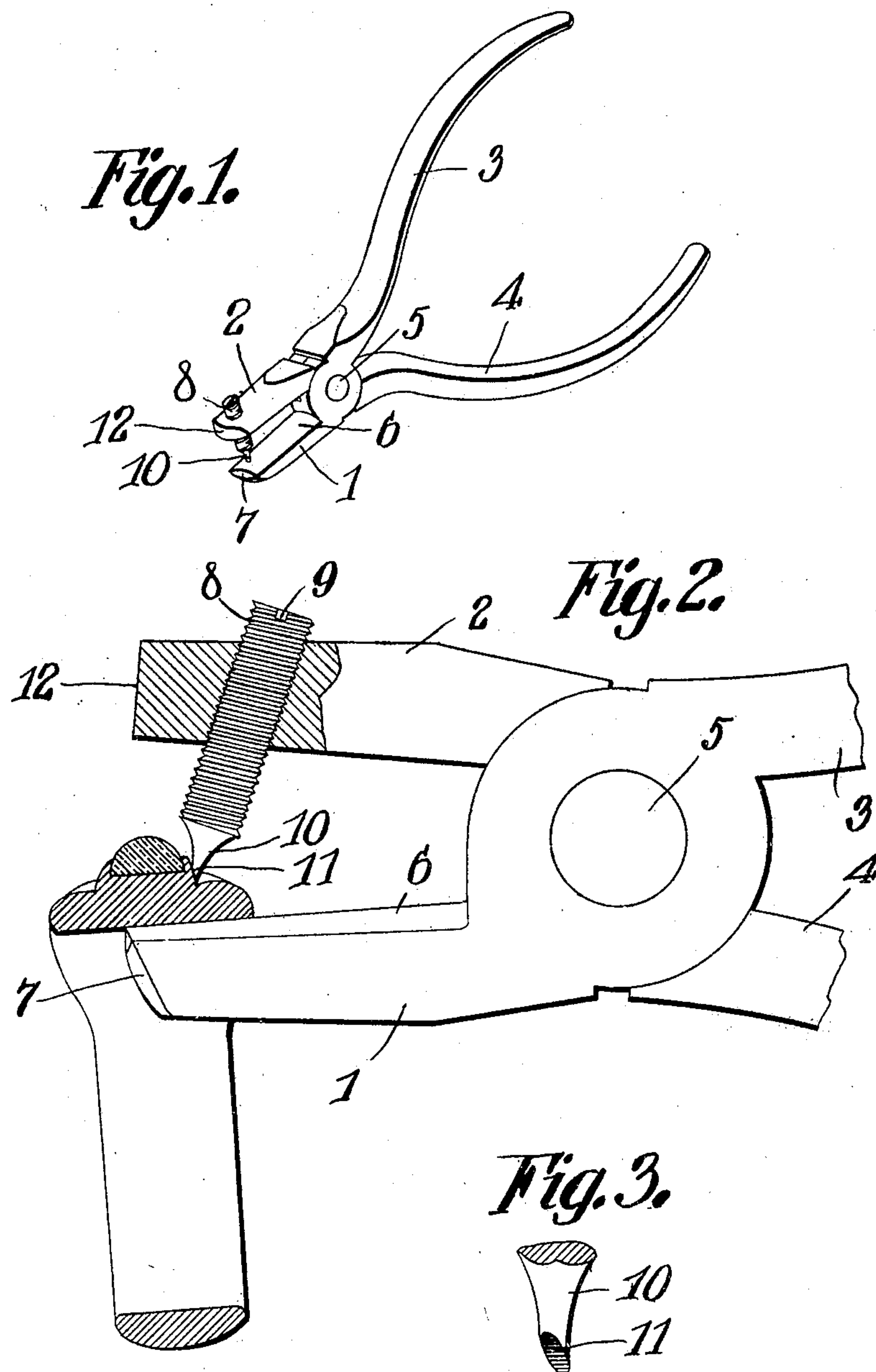
No. 836,861.

PATENTED NOV. 27, 1906.

E. C. CHAMBERLIN.

JEWELER'S PLIERS.

APPLICATION FILED JULY 23, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ELZIE C. CHAMBERLIN, OF DENISON, IOWA.

JEWELER'S PLIERS.

No. 836,861.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed July 23, 1906. Serial No. 327,383.

To all whom it may concern:

Be it known that I, ELZIE C. CHAMBERLIN, a citizen of the United States, residing at Denison, in the county of Crawford and State of Iowa, have invented a new and useful Jeweler's Pliers, of which the following is a specification.

This invention relates to jewelers' pliers such as are adapted particularly for use in setting stones in rings or other pieces of jewelry.

Difficulty is often experienced in setting a relatively soft stone or other ornament—such, for example, as an imitation pearl—for the reason that the pressure exerted upon the prongs for forcing them into contact with the periphery of the stone sometimes crushes or mars the latter. Furthermore, in addition to the danger of crushing a soft stone in the operation of setting the same, another disadvantage attending the use of ordinary prongs such as are cast or otherwise formed upon the ring when it is manufactured is that they increase the cost of manufacture, and therefore tend frequently to decrease the profit.

With the foregoing disadvantages in view the object of the present invention is to provide a strong, simple, durable, inexpensive, and thoroughly-efficient form of jewelers' pliers which are equipped with a rotary adjustable setting-tool adapted when properly operated to gouge or cut a plurality of integral slivers of gold from an ordinary plain gold ring in such manner that the setting-tool can be easily manipulated to bend the slivers of gold over into contact with the periphery of the jewel, so as to act as prongs for setting the jewel without danger of marring or crushing the same and without the necessity of providing a ring which in the course of its manufacture has been previously formed with setting-prongs.

A further object of the invention is to cause the grooves which are produced in the ring by the setting-tool to present a neat, smooth, and finished appearance.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of the following claims without departing from the

spirit of the invention or sacrificing any of its advantages.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a pair of pliers constructed in accordance with the invention. Fig. 2 is an enlarged detail view showing the jaws and the setting-tool operating upon a ring for setting a stone therein, said figure being partly in section. Fig. 3 is an enlarged detail view of the conical or bell-shaped portion of the setting-tool.

Like reference-numerals indicate corresponding parts in the different figures of the drawings.

The jewelers' pliers of this invention preferably comprise a lower jaw 1 and an upper jaw 2. The jaws 1 and 2 are provided with handles 3 and 4, which cross each other in the usual manner and are pivotally connected, as indicated at 5. The lower jaw 1 preferably is formed with a curved upper or inner face 6, so that it can be engaged with the inner face of a ring without scratching or marring the same. The outer corner of the jaw 1 preferably is beveled, as indicated at 7, to avoid the formation of a sharp edge, which might have a tendency to injure a piece of jewelry if brought in contact therewith. The upper jaw 2 is designed to receive a rotary adjustable setting-tool, which in the embodiment of invention illustrated consists of a screw 8, extending through a threaded opening in the jaw 2 and having across its upper end a groove 9 to receive a small screw-driver for rotating and adjusting the setting-tool or screw. The inner end of the setting tool or screw 8 is dressed down, so as to be approximately conical in shape, as indicated at 10, or, in other words, to resemble a bell, in that the conical portion 10 is slightly dished or curved inward intermediate its ends and flared outward at its outer portion or large end, as shown. The conical or bell-shaped portion 10 preferably is filed or otherwise cut at its inner end to form a flat inclined or beveled face 11. The setting tool or screw 8 is set through the jaw 2 at an incline or angle of about fifteen degrees, as shown. The outer end of the jaw 2 preferably is rounded, as indicated at 12, to avoid the formation of sharp corners, which might tend to scratch a piece of jewelry.

Constructed as described the manner of using the improved pliers is as follows: A set-

ting—such, for example, as a half or semi-spherical imitation pearl—is placed against the periphery of the ring in which it is desired to set the same. The lower jaw 1 of the
 5 pliers is then fitted inside the ring, so as to bear against the same adjacent the stone setting. The setting tool or screw 8 is then rotated so that its flat inclined face 11 will be disposed toward the stone, with the pointed
 10 inner end of the tool 8 resting upon the gold a short distance from the setting. By exerting delicate pressure upon the handles 3 and 4 the setting-tool 8 can be forced into the gold in such manner as to cut a small integral sliver
 15 of gold therefrom, after which by carefully manipulating the pliers the gold sliver or prong can be upset or bent over onto the periphery of the stone setting. The pliers will then be moved slightly, so that the setting-tool 8 will engage the gold ring at a
 20 slight distance from another part of the periphery of the setting. Each time the pliers are moved to cut another sliver of gold the setting-tool 8 will be slightly rotated in the
 25 jaw 2 so as to cause its flat inclined face 11 always to be disposed toward the stone setting. By carefully manipulating the pliers the slivers of gold can be produced and bent over onto the periphery of the setting in such
 30 a delicate manner that any danger of crushing the soft setting is almost entirely avoided.

It will be obvious that the advantage in using a setting-tool 8 which is rotatable upon the jaw 2 is that it can be readily turned so
 35 that the flat inclined face 11 will be always disposed toward the setting and in this way the necessity of turning the handles of the pliers or of changing the position of the ring with respect to the device will be avoided.

40 The advantage of using an adjustable setting-tool 8 is that it can be employed upon rings or pieces of jewelry of different thicknesses by simply adjusting it longitudinally within the jaw 2.

45 It is found in practice that by passing the tool 8 through the jaw 2 at an incline of about fifteen degrees the pliers can be more readily

manipulated for cutting the prongs in the gold, as described.

The advantage in using the conical or bell-shaped portion 10 upon the inner end of the setting-tool 8 is that this conical portion serves to smooth the groove which is left when the sliver of gold is cut, so that said groove will present a neat and finished appearance.
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The improved pliers of this invention are strong, simple, durable, and inexpensive in construction as well as thoroughly efficient in operation.
 60

What I claim is—

1. A pair of jewelers' pliers comprising a pair of jaws, and a rotary adjustable setting-tool extending through one of said jaws and having a pointed inner end and a flat inclined
 65 face disposed at an angle to the axis of the tool and approximately at right angles to the adjacent jaw, for substantially the purposes set forth.

2. A pair of jewelers' pliers comprising a
 70 pair of jaws, and a setting-tool consisting of a screw extending through one of said jaws at an incline and having an approximately conical end formed with a flat face inclined to the axis of the screw.
 75

3. A pair of jewelers' pliers comprising a pair of jaws having handles, one of said jaws being formed with a curved inner face and a beveled outer corner and the other of said
 80 jaws having a curved outer face, and a setting-tool consisting of a screw extending through said jaw at an angle of approximately fifteen degrees, said setting-tool having an approximately conical or bell-shaped inner end formed with a flat inclined face, for
 85 substantially the purposes set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ELZIE C. CHAMBERLIN.

Witnesses:

GEORGE M. HENRY,
 BERNICE OSBORNE.