

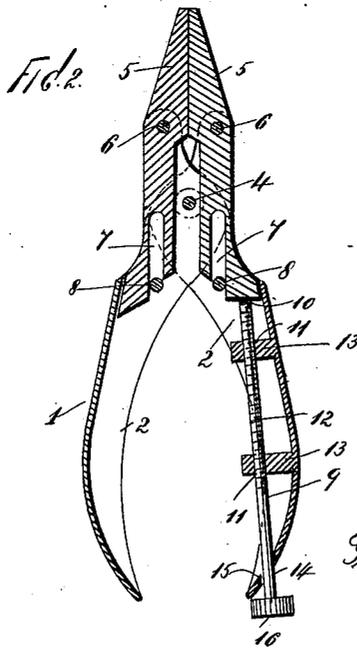
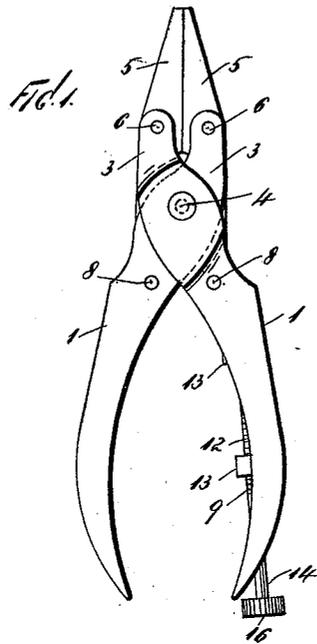
No. 653,364.

Patented July 10, 1900.

G. B. PITTAVINO.
PLIERS.

(Application filed Sept. 13, 1899.)

(No Model.)



WITNESSES

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PLIERS.

SPECIFICATION forming part of Letters Patent No. 653,364, dated July 10, 1900.

Application filed September 13, 1899. Serial No. 730,305. (No model.)

To all whom it may concern:

Be it known that I, GIOVANNI B. PITTAVINO, a subject of the King of Italy, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Pliers, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to pliers, and has particular relation to that class of pliers which are used by jewelers and embody jaws which maintain the same relative plane in their opening and closing operation.

The object of my invention is to provide a simple and improved mechanism by which the jaws when they have grasped an object can be set or adjusted against further open movement, thus locking the pliers in their clamping operation and enabling the same to be set aside without removing the clamped object and without necessity for retaining the pliers in the hand to continue their clamping operation.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in which—

Figure 1 is a side elevation showing a pair of jewelers' pliers embodying my improvements and Fig. 2 a longitudinal sectional view of the same.

My invention is especially adapted to the form of pliers illustrated in Letters Patent No. 427,220, dated May 6, 1890; but it is obvious that it may also be used in connection with any other general form or construction of jewelers' pliers in which the jaws open and close without varying their relative planes and which jaws have a rearwardly-sliding movement in their opening operation.

The form of pliers illustrated in the accompanying drawings embodies two sheet-metal handle-levers 1 1, bent up to form hollow handle-portions 2, and respectively carrying cross-pieces 3, united together by a main pivot 4 and inclosing the solid jaws 5 5, said jaws being pivoted to the outer ends of the cross-

pieces 3 by means of pivot-pins 6 and having their inner ends slotted, as at 7, for the passage of guide-pins 8, by means of which the jaws are maintained without varying their relative planes in the movement of opening and closing and are adapted to slide rearwardly and forwardly in said operation between the cross-pieces 3 3.

It will be understood that the specific purpose of such construction and arrangement as that just described in jewelers' pliers is to keep the clamping-surface of the jaws always in a true parallel position as said jaws open and close. For a better understanding of the main construction of the pliers as just above set forth reference may be had to the above-mentioned Letters Patent, it being understood that the adaptability of my invention to jewelers' pliers concerns not essentially the specific construction above mentioned, but is related to any form of jewelers' pliers in which the jaws in their opening and closing movement slide rearwardly and forwardly with respect to the handles.

I will now proceed to describe my improvements for adjusting the jaws, so that when they are clamping an object they will be securely locked against further opening. It will be understood that the jaws essentially operate in a simultaneous movement, so that the application of the adjusting or set device to one of the jaws of course controls the movement of both.

My improvements comprise a screw-rod 9, mounted upon one of the handles 1 and having its inner end 10 adapted to bear against the inner end of one of the sliding jaws 5. I prefer to mount said screw-rod within the hollow handle portion of the handle and provide threaded bearings 11 11 for the threaded portion 12 of the rod in projecting lugs 13 13, interiorly projecting within said hollow handle portions. The screw-rod of course extends on a longitudinal plane with respect to the handle 1, and its outer end 14 projects through a suitable opening 15 in the outer end of the handle and is provided with a milled operating-head 16.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains.

When the rod 9 is at its rearward limit of adjustment, the jaws 5 can be separated to their full limit. They are adapted when separated to clamp any desired object, and when so arranged in clamping position it is only necessary to screw up the rod 9 so that its end projects against the rear or inner end of the jaw 5, when the jaws will be forced into tight contact with the object clamped and locked against further opening or rearward movement. It is therefore then unnecessary to retain the pliers in the hands for the purpose of causing them to continuously clamp or bind the object, and they can simply be laid aside or otherwise arranged or disposed of as may be desired.

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

1. Pliers of the class described, comprising handles provided with jaws movably connected therewith, the relative construction and arrangement being such that in the movement of said jaws the operative faces thereof at all times project in planes of constant relation, and an adjustable set device which operates in connection with one of said jaws

whereby the play thereof may be limited, substantially as shown and described.

2. Pliers of the class described, comprising pivoted movable handles provided with pivoted jaws, means for causing said jaws to reciprocate upon movement of said handles, and an adjustable set device arranged to operate in connection with one of said jaws whereby the movement thereof may be limited, substantially as shown and described.

3. Pliers of the class described, comprising handles pivoted together, and each provided at one end with a pivoted jaw which is slotted at its inner end, pins connected with said handles and operating within said slots, and a set-screw operatively connected with one of said handles and bearing upon the inner end of one of said jaws, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 12th day of September, 1899.

GIOVANNI B. PITTAVINO.

Witnesses:

F. A. STEWART,
V. M. VOSLER.