(No Model.)

J. C. SLACK.

PLIERS.

No. 606,591. Patented June 28, 1898.

FIG. 1.

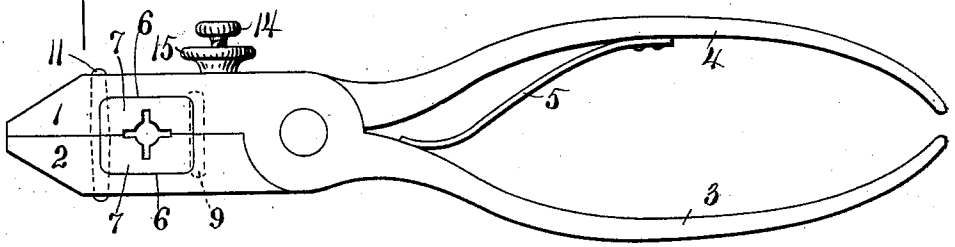


FIG. 2.

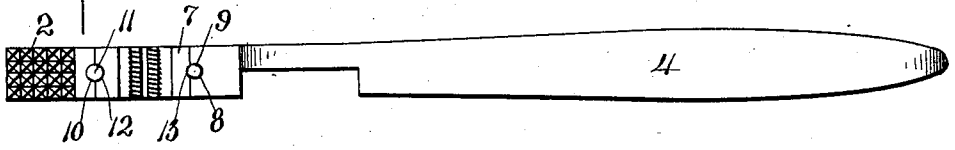
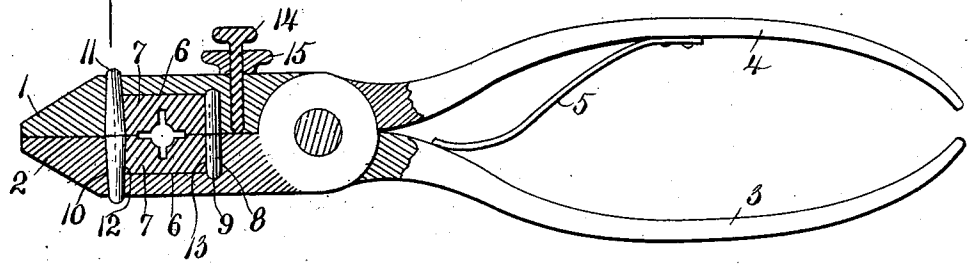


FIG. 3.



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PLIERS.

SPECIFICATION forming part of Letters Patent No. 606,591, dated June 28, 1898.

Application filed July 31, 1897. Serial No. 646,668. (No model.)

To all whom it may concern:

Be it known that I, JOHN COLEMAN SLACK, of Brooklyn, (Green Point,) in the county of Kings and State of New York, have invented certain new and useful Improvements in Pliers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to a novel construction in devices for cutting screw-threads, and refers more especially to pliers that are adapted for this purpose.

The invention consists in the features of construction hereinafter described and specifically claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of pliers constructed in accordance with this invention. Fig. 2 is a side view of one of the jaws of the pliers and taken from the inner side thereof. Fig. 3 is a longitudinal section.

Referring now to said drawings, 1 and 2 indicate the jaws of the pliers, and 3 and 4 the respective handles therefor. These parts are pivoted together in any approved manner, and fastened to one of the handles is a spring 5, that presses against the inner face of the other handle and serves normally to open the jaws. In the inner face of each of the jaws is a rectangular notch 6 to receive the dies 7, said dies being of ordinary structure and fitting within said notches. For holding the dies in place each of the jaws is provided with a groove 8 in the rear wall of the notch 6 to receive pins 9, while at the front end of the notches 6 are tapered openings 10, extending through the jaws to receive the tapered pins 11. The grooves 8 at the rear ends of the notches receive the greater part of the pins, so that they are held in place, while the openings 10 receive half of the pins. The dies 7 are provided with grooves 12 and 13 at the ends thereof to receive pins 9 and 11, it being noted that the grooves 12 are deeper than the grooves 13. One jaw is provided with a set-screw 14, having a jam-nut 15, said set-screw passing through the jaw, so that its inner end can be screwed into engagement with the inner face of the jaw 2, and thus regulate the extent to which the jaws can be closed in adjusting the dies and the diameter of the bolt.

The dies 7 are made of different sizes for different-sized bolts which are to be cut, and are readily detachable from their respective jaws for making the desired changes in size.

It will be observed from the foregoing description that the peculiar construction of the dies and the recesses formed in the jaws prevents lateral movement of said dies, but at the same time permits of their being detached from the jaws at will. By means of the adjusting-screw 14 the distance between the two jaws when in their closed position can be regulated at will for different-sized screws.

My invention is intended principally for use in the formation of very small threads upon bolts, and is generally used in connection with lathe-chucks for such formation.

The construction and operation of the device is very simple and cheap, but at the same time very effective, as the removability of the dies permits of the device being set to cut threads of any desired size without altering its structure.

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

1. The combination with a pair of pliers having notches formed in the inner faces of the jaws thereof, a groove at the inner ends of said notches, a deeper opening at the outer ends of said notches, and dies situated within said notches and provided with grooves at their ends to receive pins that are inserted in said grooves and openings.

2. The combination with a pair of pliers having notches in the inner faces of the jaws, grooves at the inner ends of said notches and openings at the outer ends of said notches, dies situated within said notches and provided with grooves at the ends thereof, pins situated within the grooves at the inner ends of the notches and extending to a greater extent in the notches of the jaws, and tapered pins in the openings at the outer ends of the notches which extend into the grooves of the dies.

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

JOHN COLEMAN SLACK.

Witnesses:
CHARLES E. SLACK,
EDWIN H. COOKE.