

GEORGE W. MOORE.

PLIERS.

116473

PATENTED JUN 27 1871

FIG. 1.

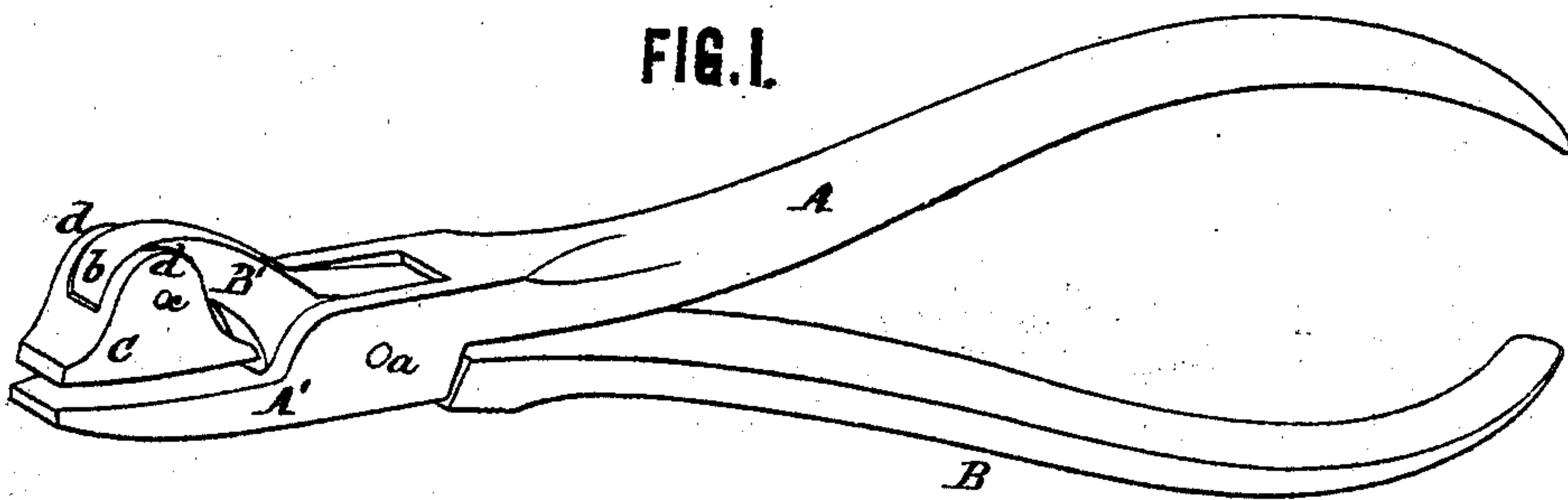
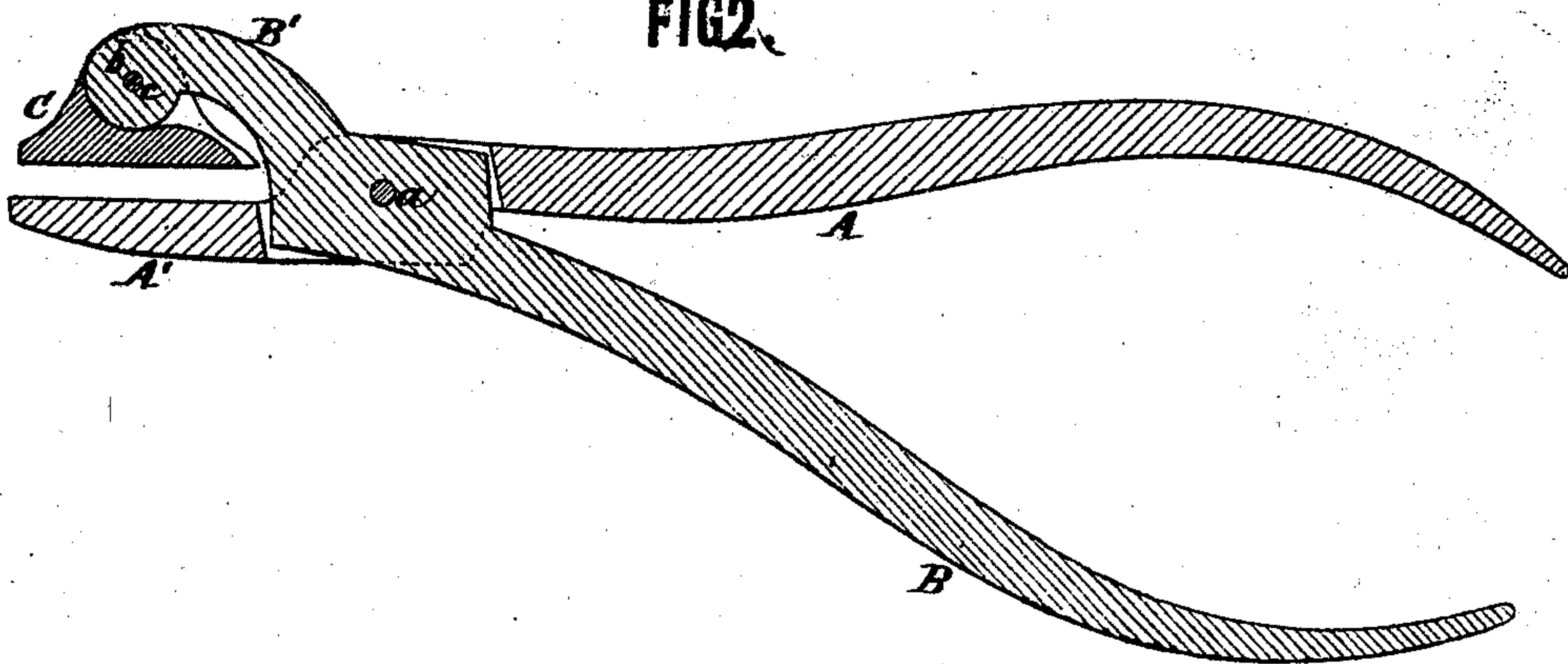


FIG. 2.



George W. Moore  
by atty *N. H. R.*

WITNESSES.

*C. B. Nottingham*  
*Nottingham,*



# UNITED STATES PATENT OFFICE.

GEORGE W. MOORE, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN PLIERS.

Specification forming part of Letters Patent No. 116,473, dated June 27, 1871.

*To all whom it may concern:*

Be it known that I, GEORGE W. MOORE, of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Pliers, of which the following is a specification:

The object of my invention is to produce pliers the jaws of which will conform to the general shape of the article grasped by them, and which, while possessing this capacity of adapting themselves to different shapes, will also be equally as strong and durable as ordinary pliers, whose jaws are not adjustable in this way.

In carrying my invention into effect I construct the pliers of two pieces, which are pivoted together near the ends which form the jaws, and are provided with the usual bowed shanks for convenience of handling. One of the pieces may be constructed with a jaw and a shank like those in ordinary pinchers. The other piece is constructed, as far as concerns the shank or handle, and up to the pivot, in a similar manner, but beyond the pivot, instead of being shaped like an ordinary jaw, it is curved outwardly or away from, and is made somewhat shorter than, the jaw of the first piece, and is provided with a cylindrical head, through the axis of which passes a pin, forming the pivot of an adjustable jaw, the back of which is recessed to fit closely against the cylindrical head upon which it is hung. Any pressure, therefore, upon the adjustable jaw will come upon the solid cylindrical head, and not upon the pivot or pin. This construction and arrangement of the parts gives the adjustable jaw a sufficiently wide range of motion, while it makes the instrument very durable and strong, so that it may be handled and used like ordinary pinchers or pliers without any greater liability to be injured or damaged.

The accompanying drawing represents pliers made in accordance with my invention.

The one piece, which, as above stated, can be made like the corresponding piece in ordinary pliers, is represented at A pivoted at *a* to the second piece B, the shank of which is made in the usual form. Beyond the pivotal point, however, instead of being shaped like the lower jaw

A, it is curved outwardly, as shown at B', forming, in some sort, a goose-neck, to the end of which is pivoted an adjustable jaw, C, which, by reason of the formation of the neck B', is free to oscillate or tilt toward the front or rear to conform to the shape of the article placed within the jaws of the pliers, thereby grasping the said article with great firmness and with much less liability of slipping than is the case with ordinary pliers. The end of the neck B' is formed into a cylindrical head, *b*, through the axis of which passes the pin *c*, upon which the adjustable jaw C is hung; and the back of the said jaw is correspondingly cylindrically recessed, as shown in Fig. 2, so that it may fit and take its bearing against the cylindrical head *b*. When the parts are thus constructed and arranged any pressure that comes upon the jaw C will be sustained by the solid cylindrical head *b*, and not by the pin *c*, which, being thus relieved from all injurious strain, is not liable to be broken or bent, and will, therefore, last as long as the other parts of the pliers. The jaw C is of about the same size as the lower rigid jaw A', and the ears *d*, formed by the cylindrical recess made in its back, fit upon the ends of the cylinder *b*, as shown, the pin *c* uniting them all together.

Having now described my invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

In pliers composed of two jaws and handles, working upon a fixed center, as described, the cylindrical or partially-cylindrical head, formed on one of said jaws, in combination with an adjustable jaw provided with a correspondingly cylindrical recess to fit the cylindrical head upon the axis of which said jaw is hung and oscillates, substantially as and for the purposes shown and set forth.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

G. W. MOORE.

Witnesses:

H. K. PERRY,  
GEORGE GREENFIELD.