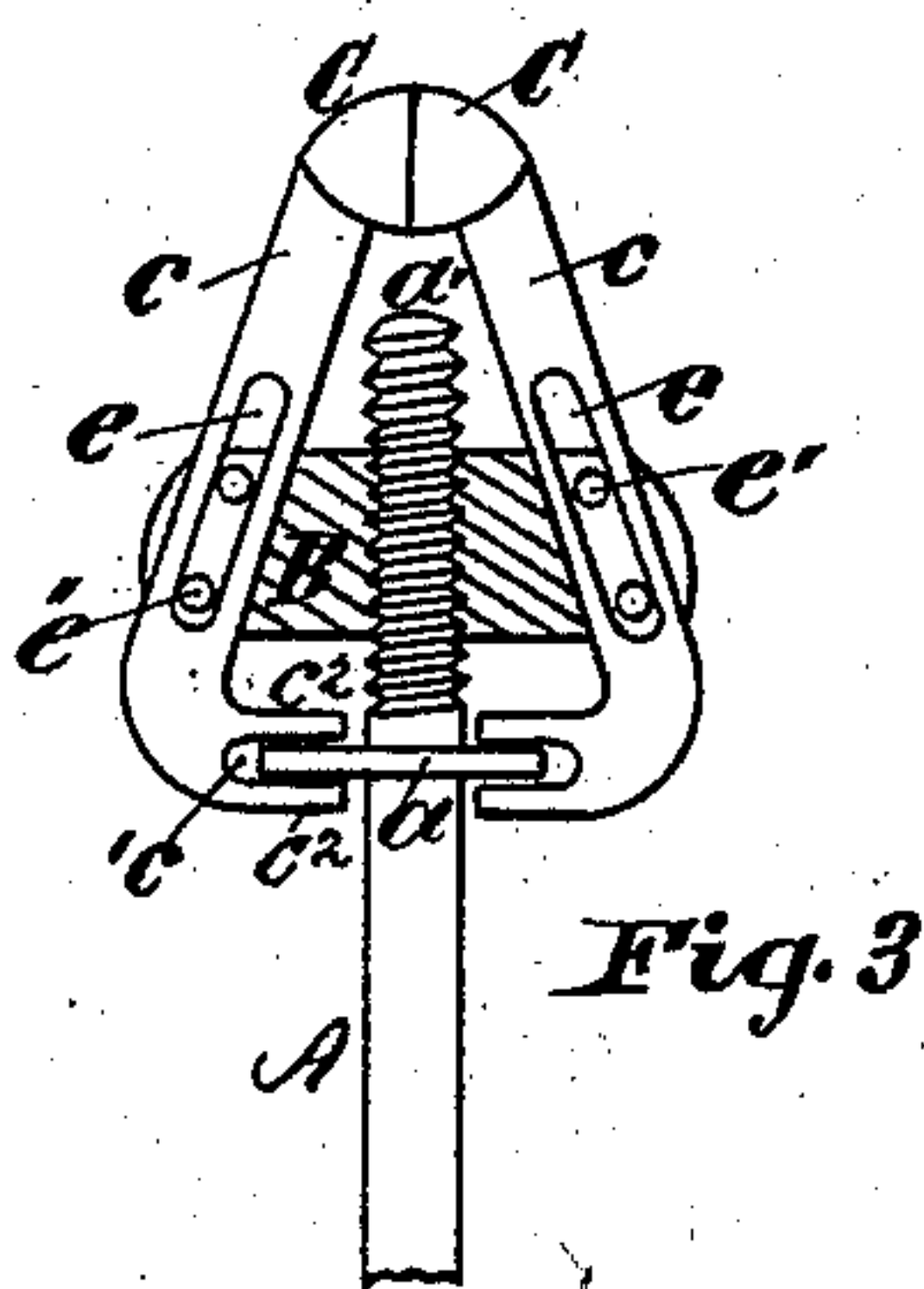
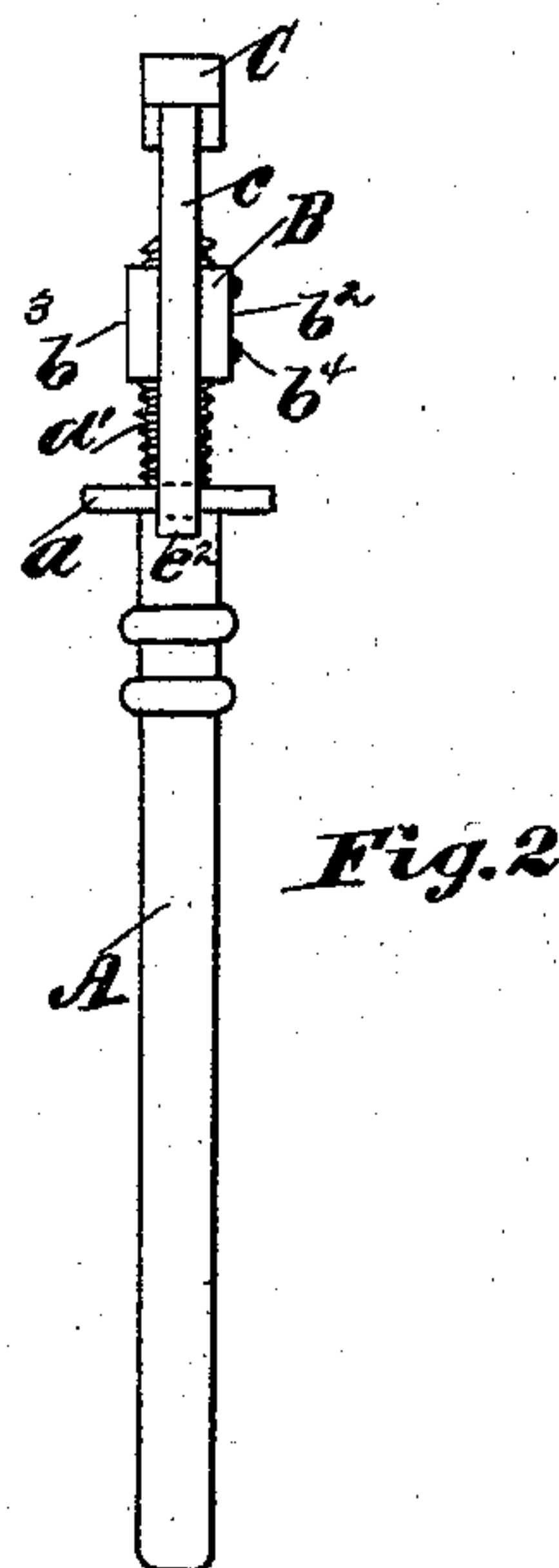
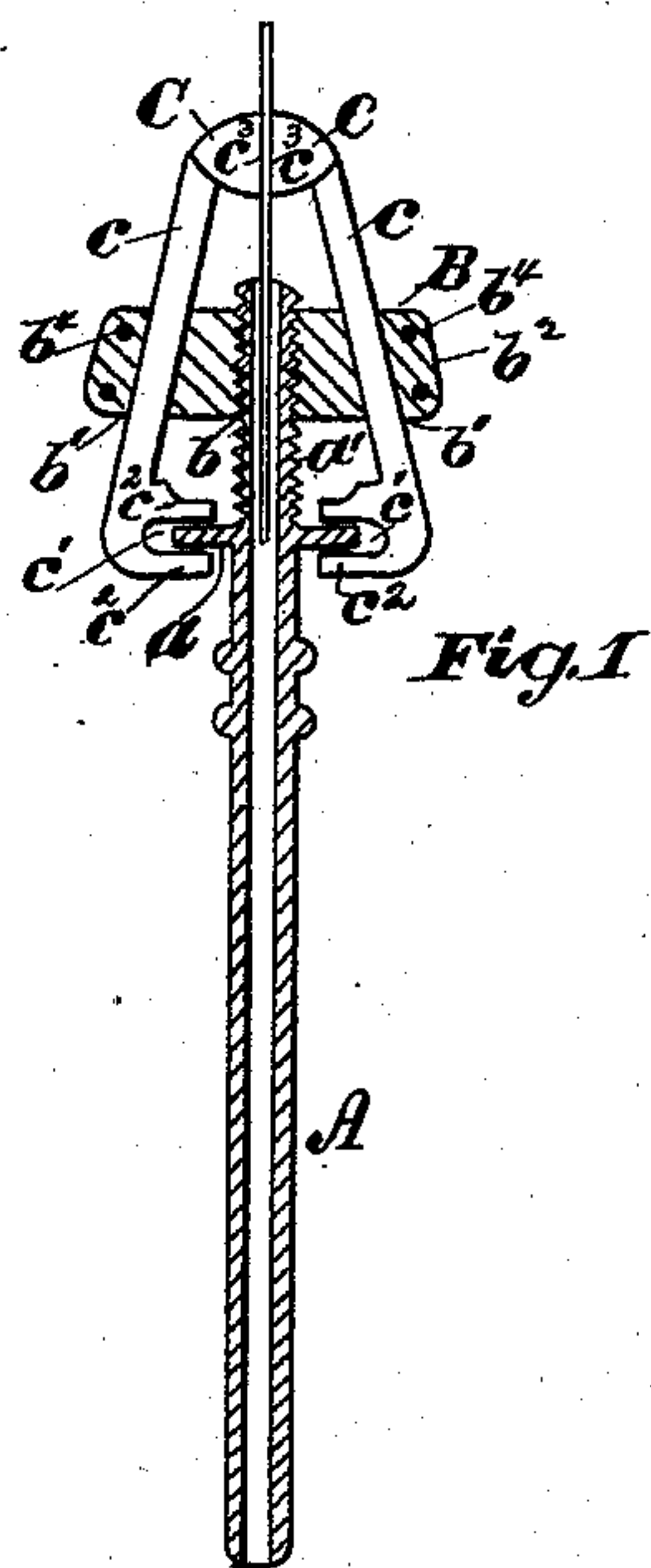


A. WESTERMAIER.
Hand-Vise.

No. 214,538.

Patented April 22, 1879.



WITNESSES:
John Stemple
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UNITED STATES PATENT OFFICE.

ADOLF WESTERMAIER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN HAND-VISES.

Specification forming part of Letters Patent No. **214,538**, dated April 22, 1879; application filed March 5, 1879.

To all whom it may concern:

Be it known that I, ADOLF WESTERMAIER, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Hand-Vises; 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 pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a front elevation, partly in section, of my improvements; Fig. 2, a side elevation of the same; and Fig. 3 is a broken face view, partly in section, of a modification.

My invention has for its object to provide a new and improved vise especially adapted for holding jewelers' pins, wire, and similar articles; and consists of the combination, construction, and arrangement of parts having reference particularly to the following points: first, to the provision of a rotating handle and a pair of jaws, the gripping-faces of which open and close in planes parallel to each other; second, to the provision of the jaws provided with arms which pass through a movable block, and whose bifurcated extremities embrace a fixed collar on a hollow rotating handle, the latter being formed with a screw, which enters a threaded opening in said block, all of said parts being arranged so that by the revolution of said handle a parallel motion of the gripping-jaws is produced.

Referring to the accompanying drawings, A is the hollow rotating handle, provided with a collar, *a*, and screw *a'*. B is the movable block, formed with a central threaded opening, *b*, which receives the said screw *a'* of said handle. Said block is also provided at either end with slots *b¹ b¹*.

C C are the jaws of the vise, formed with arms *c c*, which pass through said slots *b¹ b¹*, thereby forming a connection with said block B. The extremities of said arms are bent and slotted, as shown at *c¹*, to form the bifurcated ends *c² c²*, which embrace the collar *a* of the handle A, and forming a connection therewith.

The block B is made in two parts, *b² b³*, which are riveted or screwed together, as shown at *b⁴*.

Operation: Taking hold of the block B, the handle A is turned either to the right or to the left, which action, by means of the screw *a'*, raises or lowers the movable block B, thereby spreading or contracting the arms *c c*. The collar *a*, working in the slots *c¹* of said arms, holds the ends of the latter in position, so that as said arms are separated or contracted the gripping-faces *c³ c³* of the jaws will open and close in planes parallel to each other.

In the modification shown in Fig. 3 the arms *c c* are provided with slots *e e*, and pins *e'*, attached to the movable block B, pass there-through, the construction in other respects and the results being the same as above described.

The advantages of the foregoing construction are its simplicity of construction and arrangement. There being no pivotal points to provide for, the expense of construction is lessened. The parallel movement of the gripping-faces of the jaws secures the greatest length and amount of gripe obtainable, while the provision of the movable block and screw enables the operator to obtain a gradually-increasing pressure upon the object placed between the jaws—a result so essential when rounded bodies are to be operated upon.

What I claim as my invention is—

1. In a hand-vise, a pair of jaws having downwardly-projecting arms, which embrace a collar on a rotating handle, in combination with a movable block loosely connected with said handle and jaw-arms, substantially as shown and described, to open and close said jaws in parallel planes, substantially as set forth.

2. The combination of a rotating handle, A, provided with collar *a* and screw *a'*, jaws C C, having downwardly-projecting arms *c c*, and movable block B, connecting said handle and jaw-arms, substantially as shown and described.

In testimony whereof I have hereunto set my hand this 1st day of March, A. D. 1879.

ADOLF WESTERMAIER.

Witnesses:

J. R. MASSEY,
S. CHALFANT.