No. 702,517. Patented June 17, 1902.

W. H. WILKENING & W. A. NEHLS.

HAND VISE.

(Application filed Mar. 14, 1902.)

(No Model.)

Fig. 1.

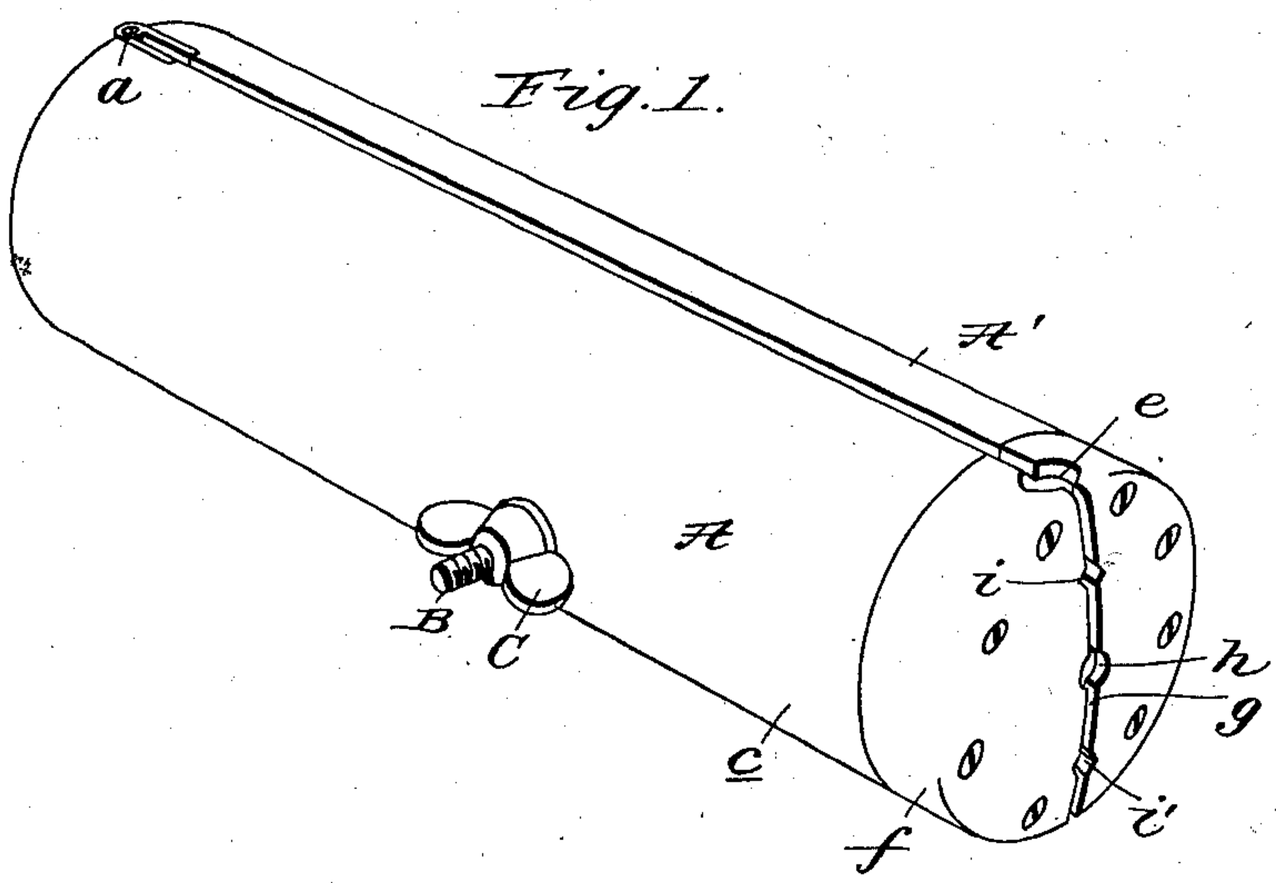


Fig. 2.

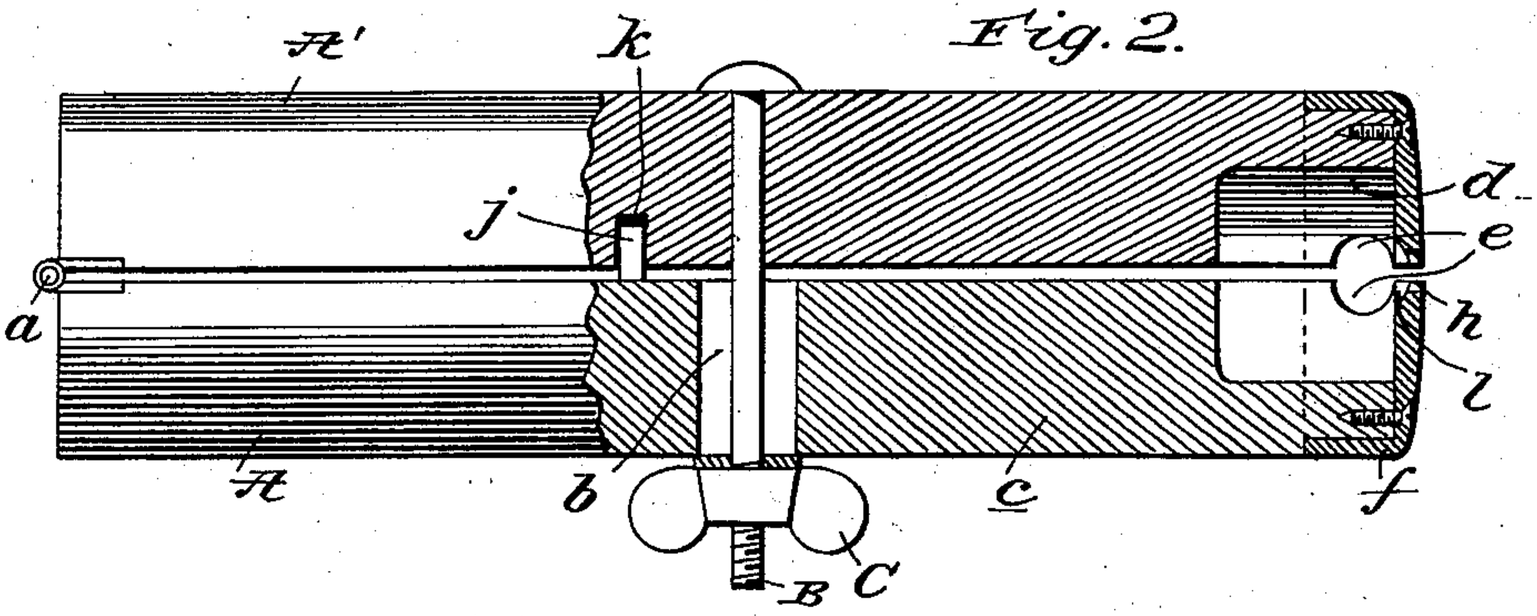
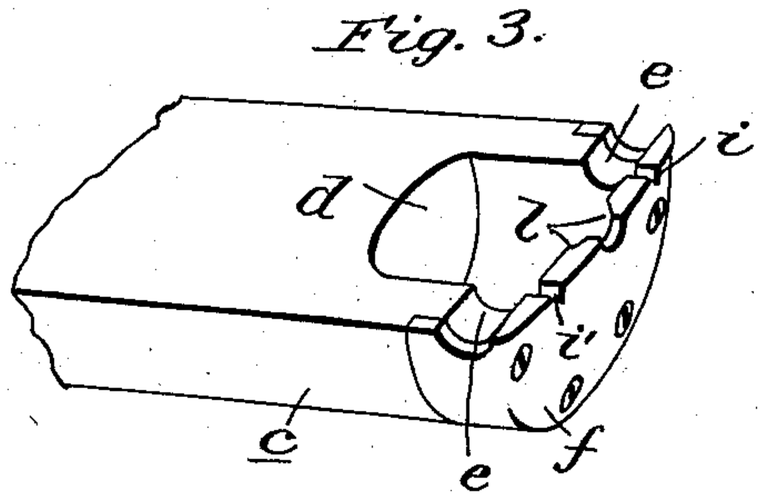


Fig. 3.



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UNITED STATES PATENT OFFICE.

WALTER H. WILKENING AND WILLIAM A. NEHLS, OF CINCINNATI, OHIO.

HAND-VISE.

SPECIFICATION forming part of Letters Patent No. 702,517, dated June 17, 1902.

Application filed March 14, 1902. Serial No. 98,191. (No model.)

To all whom it may concern:

Be it known that we, WALTER H. WILKENING and WILLIAM A. NEHLS, citizens of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Hand-Vises, of which the following is a specification.

Our invention relates to hand-vises—*i. e.*, work-holding devices designed to be held in the hand; and it has for its general object to provide an efficient hand-vise especially adapted for securely holding sleeve and collar buttons, studs, ear-rings, brooches, scarf-pins, and other articles of jewelry incident to the placing of precious stones in said articles and the performance of other work thereon, and this without in any way marring or injuring the articles.

With the foregoing in mind the invention will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a perspective view of a hand-vise constituting one embodiment of our invention; Fig. 2, a view, partly in side elevation and partly in section, of the same; and Fig. 3, a detail perspective view of the free end portion of one of the vise-jaws.

Similar letters of reference designate corresponding parts in all of the views of the drawings, referring to which—

A A′ are the jaws of our improved vise, which are hinged together at one end, as indicated by *a*, and are preferably of semicircular form in cross-section, with their flat sides inward or toward each other, the latter to make the vise as a whole of circular form in cross-section and permit of it being firmly grasped in the hand.

B is a threaded bolt extending through coincident diametrical apertures *b* in the jaws, preferably at a point midway between the hinged ends and the free ends thereof, and C is a nut mounted on the bolt.

In the preferred embodiment of the invention the jaws A A′ each comprise a major portion *c*, of wood, having a recess *d* in its inner side adjacent to its free end and also having alined grooves *e* in its inner side communicating with and extending outwardly from the recess and an end portion or cap *f*, of steel or other suitable metal. The said end portion or cap *f* is secured on the portion *c*, flush with the outer side thereof, and has a clamping edge *g*, disposed in the same plane as the inner side of the portion *c* and provided with a semicircular notch *h* and also with angular notches *i i′*, arranged at opposite sides of said notch *h*. When the jaws, each of which is constructed as just described, are moved together by turning the nut *c* upon a bolt B, it will be observed that the recesses *d* will form a chamber in rear of the clamping edges of the caps or end portions *f* and the grooves *e* will form radial passages extending outwardly from the chamber; also, that the notches *h* in the straight meeting edges *g* of the caps or end portions *f* will form a circular aperture, while the notches *i i′* will form angular apertures at either side of the said circular aperture.

For the purpose of holding the jaws A against lateral deflection when they are moved toward or away from each other we prefer to provide one jaw—the jaw A, for instance—with a pin *j* and the other jaw with a socket *k*, receiving the pin. The pin *j*, disposed in socket *k*, will obviously prevent lateral or sidewise movement of either jaw with respect to the other, and hence insure registration of the recess *d*, groove *e*, and notches *h*, *i*, and *i′* of one jaw with the corresponding recess, grooves, and notches of the other jaw. We also prefer to undercut the walls of the notches *h*, as indicated by *l*, for a purpose which will hereinafter be pointed out.

In using our improved vise it is grasped in the hand with the end portions or caps *f* uppermost, and the articles of jewelry to be operated on are clamped between the said end portions or caps by turning the nut C inwardly. When a shirt-stud or similar article of jewelry, such as an ear-stud or an ear-ring, is to be provided with a set, its stem is arranged in the aperture formed by the notches *h*, while the beveled enlargement ordinarily provided on the stem just below the setting is disposed in the recess formed by the undercuts *l*. The nut C is then turned up on bolt B, when the said article will be securely held in the vise in such manner as to permit of a set being readily secured in the

setting. When a scarf-pin or similar article is to be provided with a set, the wire portion of the pin just above the bend is placed in the smaller of the angular apertures—*i. e.*, that formed by the notches *i*—and the pin proper is interposed between the clamping edges *g* at a distance from notches *i*. With this done and the nut C tightened it follows that the pin or similar article will be securely held against casual displacement. To secure a dumb-bell sleeve-button and other articles having thick shanks or stems in the vise, the shank of said button or other article is clamped in the larger of the angular apertures—*i. e.*, that formed by the notches *i'*—when the article will be securely held, while to secure a brooch, pendant, lace-pin, or similar article the hinge-joint and pin-keeper of the article are clamped between the edges *g*. A collar-button is secured in the vise in the same manner as a shirt-stud—that is, its stem is placed in the aperture formed by the notches *h* and the nut C is tightened.

The diametrical passages formed by the grooves *e* are designed to receive the spiral of a stud or the back of a collar-button incident to the placing of the same in the vise from either side thereof, while the chamber formed by the recesses *d* is adapted to receive the back of a collar-button or other similar article secured between the clamping edges *g*.

We prefer to form the jaws of our improved vise partly of wood and partly of metal, as stated, but do not desire to be understood as confining ourselves to such construction, as the jaws might be respectively formed of one piece of metal or other material in practice without departing from the scope of our invention. We also do not desire to be understood as confining ourselves to the specific means shown and described for holding the jaws together or to the number or character of notches in the clamping edges *g*.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a hand-vise, the combination of the jaws comprising the wooden portions hinged together at one end and having the recesses *d* and grooves *e* in their inner sides at their opposite ends, and the metallic caps or end portions connected to the wooden portions and having clamping edges provided with notches, disposed in front of the recesses and grooves of said wooden portions, and means for holding the jaws together.

2. In a hand-vise, the combination of the jaws comprising the wooden portions of semicircular form in cross-section hinged together at one end with their flat sides inwardly and having the recesses *d* and grooves *e* in said flat sides at their opposite ends, and the metallic caps or end portions connected to the wooden portions, and having notched clamping edges disposed in the same planes as the flat inner sides of the wooden portions, adjustable means for holding the jaws together, and means for holding said jaws against lateral deflection incident to their movements toward and from each other.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WALTER H. WILKENING.
WILLIAM A. NEHLS.

Witnesses:
CHAS. A. JENNINGS,
CHARLES A. MINTEN.