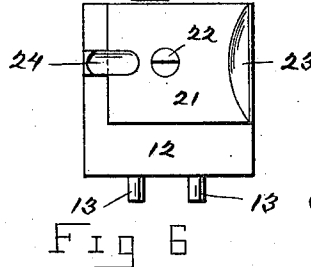
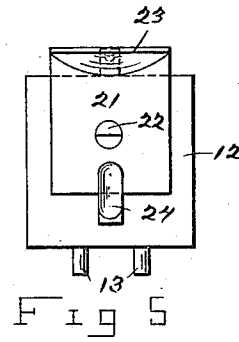
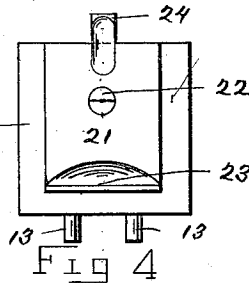
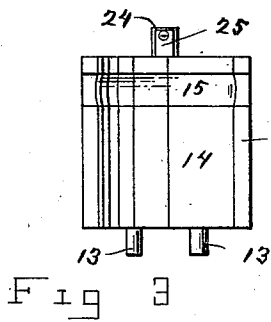
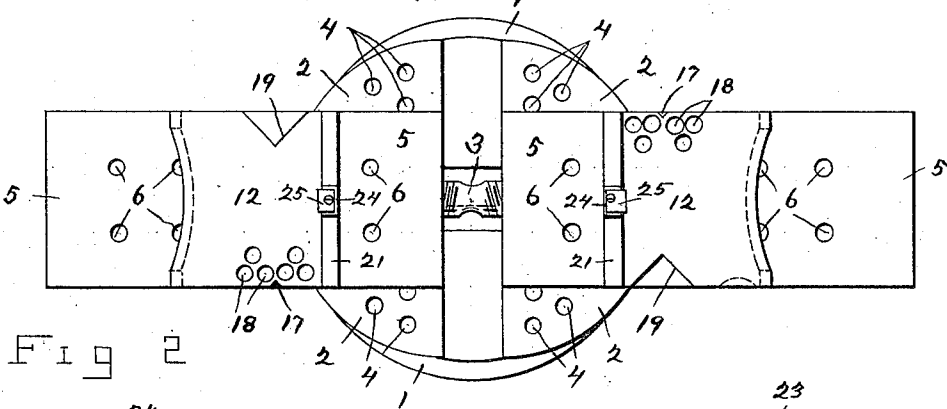
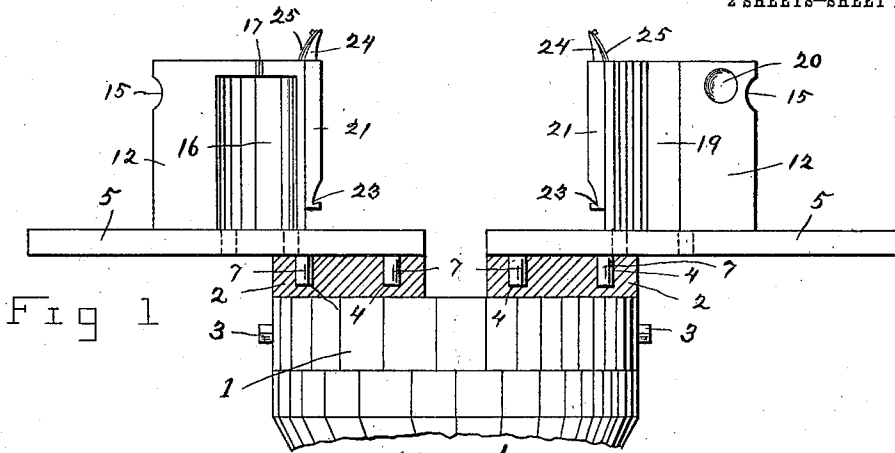


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APPLICATION FILED SEPT. 23, 1909.

1,011,108.

Patented Dec. 5, 1911.

2 SHEETS—SHEET 1.



WITNESSES:

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C. A. Reider

INVENTOR

Christian M. Bowman.

BY

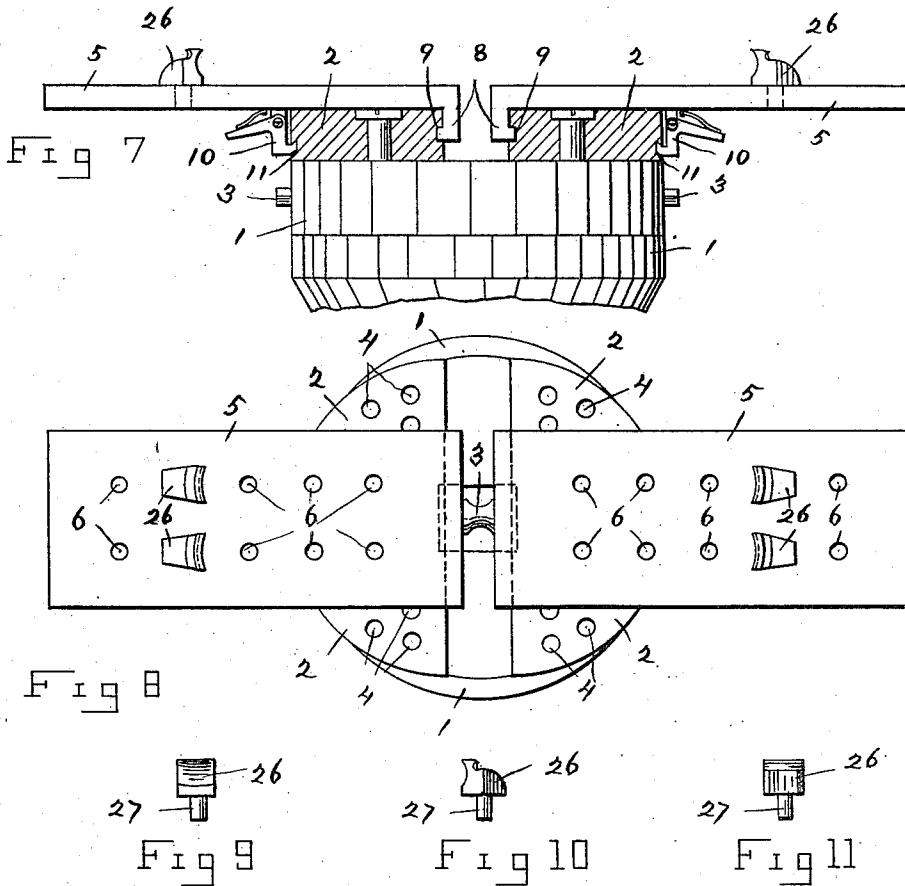
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UNITED STATES PATENT OFFICE.

CHRISTIAN M. BOWMAN, OF LANCASTER, PENNSYLVANIA.

ATTACHMENT FOR ENGRAVERS' BLOCKS.

1,011,108.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed September 23, 1909. Serial No. 519,185.

To all whom it may concern:

Be it known that I, CHRISTIAN M. BOWMAN, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Engravers' Blocks, of which the following is a specification, reference being had therein to the accompanying drawing.

My said invention relates to an attachment comprising work-holding clamps for use in connection with an engraver's block, the object being to enlarge the capacity of the block whereby it is adapted to hold not only a large variety of work of varying sizes, but also work of a much larger size than the block is adapted to hold without said attachment.

Said invention consists in providing a set of extension plates adapted to be detachably secured to the extensible jaws of the engraver's block and formed to receive and carry various work-holding clamps and devices in the same manner as the extensible jaws are also adapted to receive and carry them.

Another object of the invention is to produce a set of work-holding attachments which will be compact, and which will combine in a few parts, clamps for holding a great variety of work, thus doing away with many of the separate clamping devices now in use.

Still another object of the invention is to provide a set of attachments of this class that may be used in connection with any standard make of engraver's block and which may be quickly attached or detached therefrom without the use of tools.

With these and other objects in view my invention consists in certain construction and combination of parts as will hereinafter be fully described and claimed, and illustrated in the accompanying drawings, which form a part of this application, and in which like figures of reference refer to corresponding parts in all of the views; but it is fully understood that while I have described my invention as herewith shown, that I do not confine myself to the exact design as shown, as slight changes may be made in the construction and combination of the several parts without departing from the spirit of the invention.

In the drawings:—Figure 1, is a side elevation of the device as applied to a block,

the jaws of the block being shown in section. Fig. 2, is a top plan view of the same. Fig. 3, is a side elevation of one of the adjustable work-holding cubes, showing the grooved face which is adapted for holding such articles as bangles, etc. Fig. 4, is a view of another face of the cube as adapted for holding rings, etc. Fig. 5, shows the revolving plate which is secured to one face of the cube in a position for holding watch cases and spoons. Fig. 6, shows still another position of said plate. Fig. 7, is a side elevation of a modified form of the device, showing a different method of attaching to the block. Fig. 8, is a top plan view of the same. Figs. 9, 10, and 11, show a removable work-holding stud, which may be used in connection with the extension clamps, as shown in Figs. 7, and 8, or which may be used upon the tops of the cubes.

Referring to the drawings, 1, indicates a portion of the head or frame of a standard engraver's block, which is provided with the usual movable jaws 2, and operating screw 3; while the surfaces of said jaws are provided with the usual holes 4, for the reception of the work-holding pins. Said operating screw 3 is threaded in opposite directions at its opposite ends as indicated in Fig. 2, each end engaging with a screw-threaded part on a jaw 2, as is usual, whereby said jaws may be slid on said head toward and from each other in the ordinary manner.

The extension clamps or plates 5, are here shown as rectangular in form and formed with the vertical holes 6, in the body thereof, which are spaced each way equal distances apart. Said holes 6 are adapted to receive the depending shanks or pins 13 and 27 of the respective work-holding blocks, or clamps, 12 and 26, and other similar work-holding clamps, in the same manner that said pins or shanks are inserted in the holes 4 of the jaws 2 when the extension plates are not used.

For detachably retaining the extension plates 5, on the jaws 2, said plates are provided, near their inner ends, with the depending studs 7, which are designed to enter the corresponding holes 4, in the jaws 2, thus retaining them in place, as shown in Fig. 1, or the extensions 5, may be provided with a hooked lug 8, which is adapted to be engaged by a slot 9, milled in the edge of the jaws 2, and further retained in place by a snap-hook 10, which is mounted upon the

lower surface of the extensions 5, and engages an orifice 11, in the edge of the jaws 2, as shown in Fig. 7.

For holding the work, I provide in addition to the usual clamping devices 26 and other ordinary forms of clamps in common use, the combination cubes or blocks 12, which are formed with the pins or studs 13, depending from their under surfaces and which register with and are adapted to be inserted into the holes 6, and may be thus retained in an adjustable manner upon the jaws 2 or extensions 5, and with any pair of their corresponding faces adjacent to each other. The side faces of said cubes 12, comprise, first, a vertical curved face 14, having a horizontal curved groove 15, near the upper end thereof, which is adaptable to a large class of work. A second face is formed with a vertical cylindrical orifice 16, extending to within a short distance of the top; while the edge of the top is provided with a notch 17, and the overhanging top portion is pierced by a number of holes 18. The third face is formed with a vertical V-shaped groove 19, and a semi-spherical orifice 20. The remaining face of the cube 12, is provided with an adjustable plate 21, which is retained thereon in any desired position, by the screw 22. Said plate, near one end thereof, is formed with a cup-shaped groove 23, and at the other end with a projecting ear 24, grooved upon its face and provided upon its back with a spring 25, for engaging the upper surface of the cube and helping to retain the plate in a vertical position.

It is useless to go into a detailed description of the uses to which the different faces of the cubes may be put, as the combinations which may be made are many for holding irregular shaped articles, as this will be fully understood by the engravers, but it may here be stated that by the use of my novel form of cube, devices for holding all kinds of articles, are here contained in one loose piece, where heretofore it has required a separate piece for each article.

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

1. An engraver's block comprising a head, extensible jaws formed to carry detachable work holding devices, supports for said jaws, means for sliding said jaws toward and from each other, and detachable extension plates mounted on said extensible jaws and projecting horizontally beyond the horizontal faces thereof, and also formed to receive and carry work-holding devices interchangeably with said jaws, substantially as set forth.

2. The combination in an engraver's block of extensible jaws formed to receive and support work-holding devices, supports therefor, means for sliding said jaws in said supports, and extension plates mounted on said jaws by inter-engaging lugs and sockets and also formed to receive and support separate work-holding devices by similar engaging means, substantially as set forth.

3. An engraver's block comprising a head, supports, extensible jaws formed to receive and support work-holding devices, extension plates secured on said jaws, the plates and jaws having corresponding sockets, and work holding-devices detachably mounted on said extension plates, said plates and holding devices having studs whereby these parts may be interchangeably mounted on the primary extensible jaws, substantially as set forth.

4. The combination with an engraver's block having supports and clamp-carrying jaws thereon, of extension plates detachably secured on said jaws by means of inter-locking studs and sockets, and work holding devices on said extension plates, said holding devices being formed with a number of faces and a reversible clamping member secured on one of said faces of each holder adapted to clamp one style of work when in one position and another style of work when reversed, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTIAN M. BOWMAN.

Witnesses:

MABEL L. LEFEVRE,
JOHN J. THOMPSON.