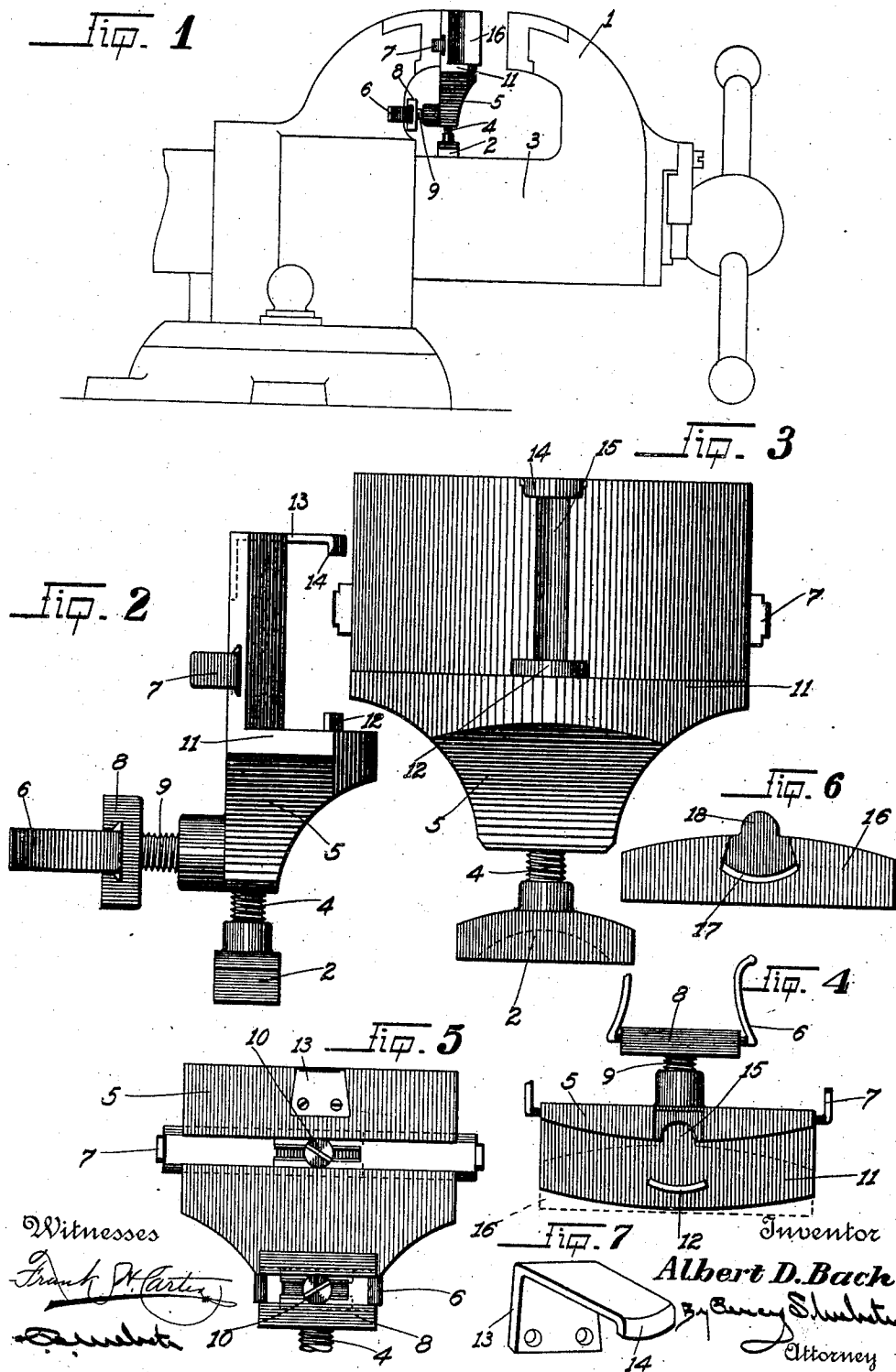


A. D. BACH.
 VISE ATTACHMENT.

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986,619.

Patented Mar. 14, 1911.



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WISE ATTACHMENT.

986,619.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT D. BACH, a citizen of the United States, residing at Knights Ferry, in the county of Stanislaus, State of California, have invented certain new and useful Improvements in Vise Attachments; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements upon vises of all characters, the object of the invention being to produce an attachment for vises whereby an irregular or odd shaped member may be held securely in the jaws of the vise without danger of the same being unsteady and unstable when being worked upon with the tools.

As is the present condition in many vises the jaws of the vise are of uniform size and even in shape and form and thus do not firmly grip an uneven or oddly shaped member, and the aim of my invention is to produce an adjustable jaw attachment to conform to any shaped material and grip and hold the same firmly.

A further object of my invention is to produce a simple and inexpensive and easily operated device for the purpose.

These objects I accomplish by means of a supporting member suitably and rigidly secured to one jaw of the vise, such supporting member maintaining a freely movable semicircular member adapted to conform to the shape of the material inserted in the device. I also employ such other and further structure and relative arrangement of parts as will more fully appear by a perusal of the following specifications and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of the device. Fig. 2 is a side elevation of a jaw supporting member. Fig. 3 is a front elevation of the same. Fig. 4 is a top plan view of the same. Fig. 5 is a rear elevation of the same. Fig. 6 is a top plan view of an adjustable jaw member to be supported by said jaw supporting member. Fig. 7 is a perspective view of a guide member.

Referring now more particularly to the

characters of reference on the drawings 1 designates the vise while 2 is a base supporting member adapted to rest on the moving arm 3 of the vise, said base 2 having a threaded pin 4 to adjust itself to different sized vises, such pin 4 having movably mounted thereon a jaw supporting member 5 held to one jaw of the vise by means of clamp springs 6 and 7, the springs 6 being in a frame 8 having a threaded pin 9 movable in the member 5 for adjustment to different sized vises. For the same purpose said springs are also made in two pieces one piece slidable over the other and being set in fixed positions by means of set screws 10. The member 5 is provided with a projecting shelf 11 upward from which projects a curved flange 12 while screwed to the top of the member 5 is a projecting arm 13 having a downwardly projecting curved flange 14 in alinement with the flange 12, there being a circular vertical groove 15 in the member 5 to the rear of members 12 and 14.

16 is an adjustable jaw member having curved grooves 17 to receive the flanges 12 and 14 and is of a greater length than the same to permit the member 16 a freedom of movement, such member 16 having a curved vertical flange 18 fitting in the groove 15 to maintain the proper position of the said member 16.

In practice when an irregular or odd shaped member is to be worked in the vise the attachment above described is placed on the vise and then since the member 16 is mounted in an oscillatory manner it conforms to the desired shape and holds the work securely since the position of the member 16 is maintained by the flange 18 and flange 14.

Thus it will be seen that I have produced a device which substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of my device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

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

1. The combination with a vise of a base member adapted to engage the movable arm of said vise, a threaded pin projecting upwardly from said base member, a support

mounted on said threaded pin, an adjustment screw on said support, a spring clip mounted on said screw and engaging the stationary arm of the vise, and an oscillating jaw carried by said support.

2. The combination with a vise of a support, a threaded pin on said support, a guide block on said pin, a spring clip disposed in said guide block and engaging the stationary arm of said vise, and an oscillating jaw carried by said support.

3. The combination with a vise of a support, a threaded pin on said support, a guide block on said pin having a slot, a spring clip movable in said slot and engaging said vise, and an oscillating jaw member on said support.

4. The combination with a vise of a support, a threaded pin on said support, a guide block on said pin having a slot, a spring clip movable in said slot and engaging said vise, means for fixing said spring clip at a desired point in said slot, and an oscillating jaw member on said support.

5. The combination with a vise of a support, a threaded pin on said support, a guide block on said pin having a slot, a spring clip movable in said slot and engaging said vise, a screw projecting through said slot and impinging against said spring

clip, and an oscillating jaw member on said support.

6. The combination with a vise of a support, a threaded pin on said support, a guide block on said pin having a slot, a spring clip movable in said slot and engaging said vise, said spring clip comprising two members one slidable within the other, a set screw for fixing said members together, and an oscillating jaw member on said support.

7. The combination with a vise of a support having a slot, a spring clip member movable in said slot, and engaging said vise, and means for fixing said spring clip member in a predetermined position in said slot, and an oscillating jaw member on said support.

8. A support having a slot, a spring clip member comprising two members movable in said slot and a set screw disposed in said support and impinging on said spring clip members, and an adjustable jaw member on said support.

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

ALBERT D. BACH.

Witnesses:

JOSHUA B. WEBSTER,
PERCY S. WEBSTER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."