No. 698,858. Patented Apr. 29, 1902.

S. O. ROOT.

VISE ATTACHMENT.

(Application filed July 23, 1901.)

(No Model.)

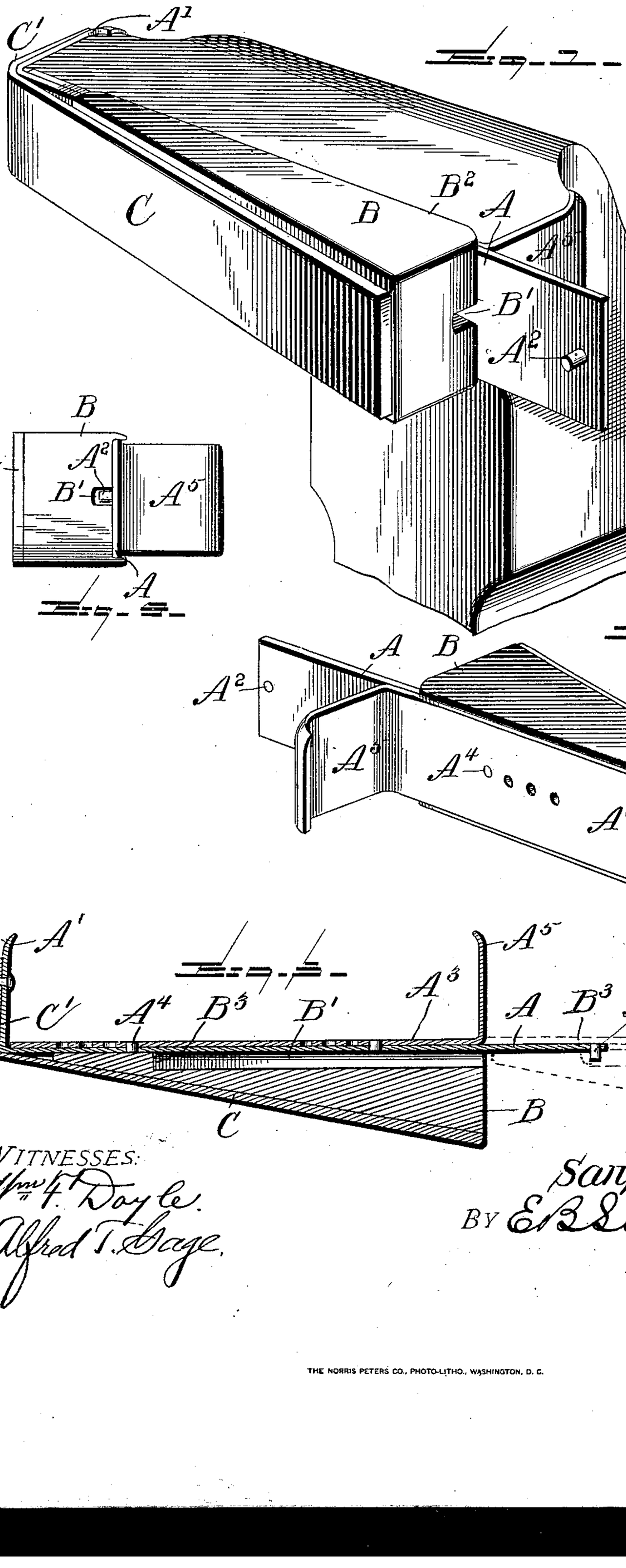

Fig. 1.

Fig. 5.

Fig. 2.

Fig. 3.

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VISE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 698,858, dated April 29, 1902.

Application filed July 23, 1901. Serial No. 69,427. (No model.)

To all whom it may concern:

Be it known that I, SANFORD O. ROOT, a citizen of the United States, residing at Lodi, in the county of Seneca, State of New York, have invented certain new and useful Improvements in Vise Attachments, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a vise attachment, and particularly to a device for presenting an inclined surface to the jaw of a vise for grasping an object having an irregular face or shape.

An object of the invention is to provide an adjustable wedge-block adapted to be secured by a base-plate to one face of the vise and to move longitudinally upon said plate.

A further object of the invention is to provide means whereby the wedge-block may be removed from operative position and the vise used in the ordinary manner.

Other objects and advantages of the invention will hereinafter appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective showing the attachment applied to a jaw of the vise. Fig. 2 is a detail perspective of the opposite face of the attachment. Fig. 3 is a longitudinal horizontal section through the attachment, and Fig. 4 is an end view thereof.

Like letters of reference indicate like parts throughout the several figures of the drawings.

The letter A designates a base-plate of the attachment, which is provided at one end with a hooked portion A′, adapted to engage the face of one jaw of a vise—for instance, the fixed jaw, as shown—and at the opposite end is provided with a stop-pin A^2, adapted to cooperate with a sliding wedge B, provided with a slot or way B′ to receive said pin.

To the body portion of the base-plate A a clamping-plate A^3 is secured to the base-plate by pins or rivets A^4 or otherwise and provided with a series of apertures, so that the plate A^3 may be adjusted upon the base-plate A so as to bring the jaw A^5 thereof into such intimate contact with the vise-jaw as to firmly secure the parts in position. This structure of adjustable clamp permits the application of the attachment to any desired size of vise.

The sliding wedge B is provided with opposite edge flanges B^2, adapted to embrace the base-plate and secure the wedge against lateral movement thereon, while at the outer face of the wedge a spring-plate C extends and is secured at its end C′ to the hook member A′ of the base-plate. The groove or way B′, within which the pin A^2 operates, is formed with the shoulder B^3 at its inner end, which limits the outward movement of the wedge when moved from behind the spring-plate C, as shown by dotted lines in Fig. 3.

In the operation of the attachment it will be seen that when the wedge-block B is located in its innermost position, as shown in Fig. 1, the spring-plate C is forced outward, so as to provide an inclined face upon one jaw of the vise, which is adapted to engage and retain an object having a similar beveled face or irregular outline, and this prevents the straining and skewing of the vise and the feed-thread thereof when such an object is grasped between the ordinary parallel jaws of the vise. Furthermore, the wedge-block is adjustable inwardly to any degree for different characters of work and entirely obviates the necessity for wedge-blocks or plugging to hold the work in the vise and prevent slipping of the same toward the ends of the jaws. If the wedge be partially withdrawn, the spring-plate will be supported at one end by the base-plate and at the opposite end by the wedge, against which it will lie, it being understood that the object clamped should be in contact with the supported portions of the spring. The wedge can be instantly adjusted to the work, and when completely removed, as shown by dotted lines in Fig. 3, the spring-plate C will be pressed back upon the face of the jaw, thus permitting the vise to be used in the ordinary manner.

It will be observed that this attachment does not weaken the vise in any way, and all of the parts are of such simple construction that the danger of breakage and disarrangement of parts is reduced to a minimum, as the strain is received upon a solid block supported directly from a jaw of the vise, and the pressure exerted in clamping an irregular

object is thus applied substantially evenly to the threads of the vise-screw and the jaws thereof. The adjustable clamping-plate for the attachment permits its application to any size of vise to which it can be secured by a simple rivet between the base-plate and the clamping plate or jaw.

It will be obvious that changes may be made in the details of construction, configuration, and size of the several parts without departing from the spirit of the invention as defined by the appended claims.

Having described my invention, what I claim is—

1. A vise attachment comprising a base-plate having a straight face, a sliding wedge having a straight face in contact with said plate and an opposite inclined face supported upon said plate for longitudinal movement in a straight path; substantially as specified.

2. A vise attachment comprising a base-plate, a sliding wedge supported upon said plate for longitudinal movement, and a spring-plate upon the outer face of said wedge; substantially as specified.

3. A vise attachment comprising a base-plate, a sliding wedge supported upon said plate for longitudinal movement, a spring-plate upon the outer face of said wedge, and means carried by said clamping-plate for securing the attachment to a vise-jaw; substantially as specified.

4. A vise attachment comprising a base-plate having a stop-pin at one end thereof, a sliding wedge carried by said plate and provided with a groove or way to receive said pin, a spring-plate secured to said base-plate and lying upon the outer face of said wedge, and means for securing the base-plate to a vise-jaw; substantially as specified.

5. A vise attachment comprising a base-plate having a stop-pin at one end thereof, a sliding wedge carried by said plate and provided with a groove or way to receive said pin, a spring-plate secured to said base-plate and lying upon the outer face of said wedge, a hooked portion provided at one end of said base-plate, and a clamping-jaw secured to said base-plate and provided with a hooked portion to engage a vise-jaw; substantially as specified.

6. In a vise attachment having a hooked portion at one end and a stop-pin at the opposite end, a clamping-plate provided with a hooked portion at one end and adjustably secured to said base-plate, a sliding wedge having a straight face to engage said base-plate and a groove or way therein to receive said stop-pin, opposite edge flanges extending from said wedge over the edges of the base-plate, and a spring-plate secured at one end to the base-plate and adapted to lie in contact with the inclined face of said wedge; substantially as specified.

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

SANFORD O. ROOT.

Witnesses:

RICHARD SPEARE,

GILBERT TOWNSEND.