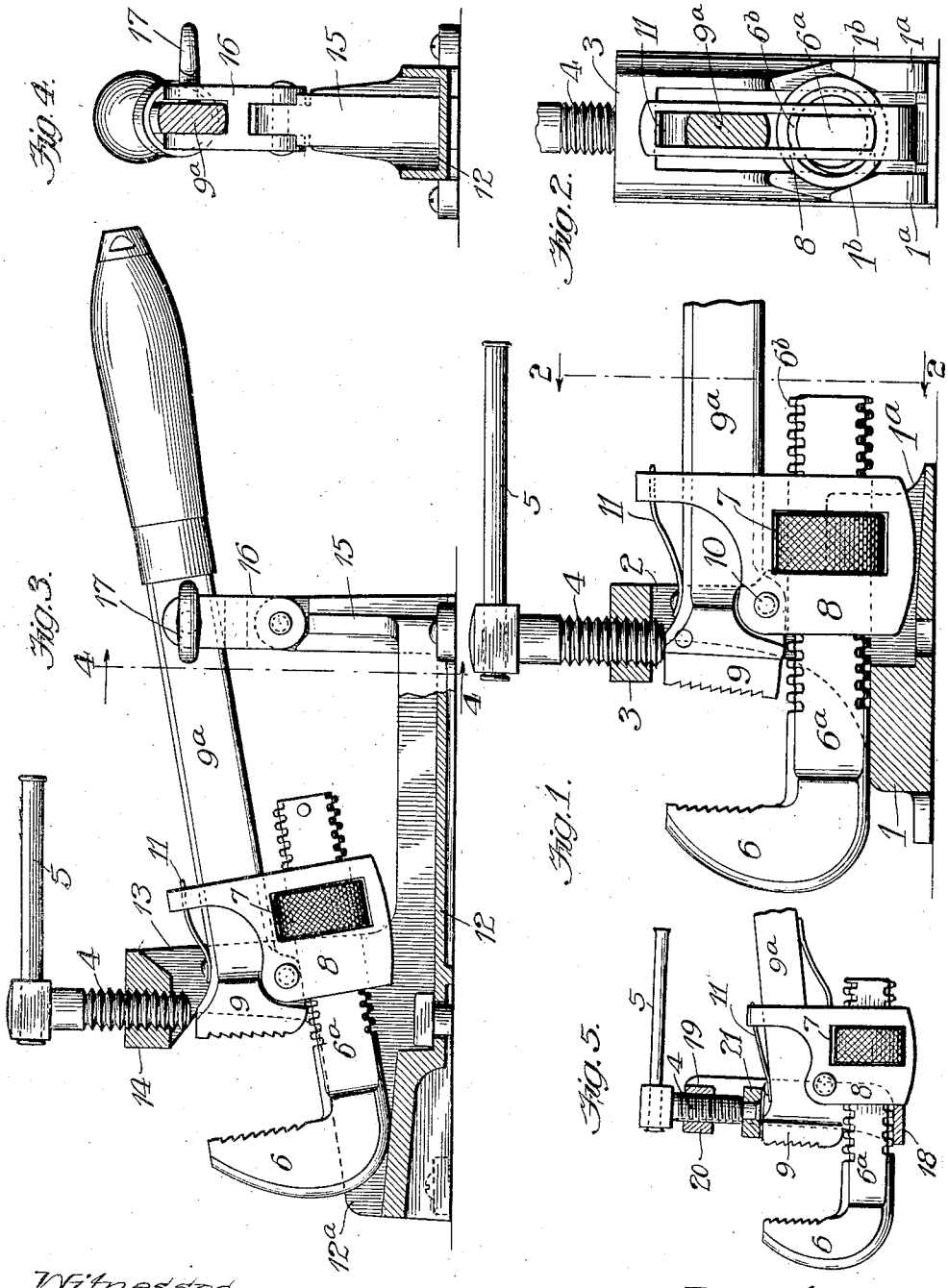
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VISE.

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VISE.

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To all whom it may concern:

Be it known that I, ROY PARMELEE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Vises, of which the following is a specification.

My invention relates to a vise, more particularly that type intended for pipe work, and the object thereof is to provide a simple, efficient and reliable vise of this character. According to my invention I utilize the ordinary type of Stillson wrench, such as shown in Stillson Patent No. 126,161, dated April 30, 1872, and combine the same with a frame or fixture whereby such wrench is given the functions of a vise.

In the drawing Figure 1 is a vertical section illustrating one embodiment of my invention; Fig. 2 a section on the line 2—2 of Fig. 1; Fig. 3 a view similar to Fig. 1 but illustrating a modified form of construction; Fig. 4 an end elevation thereof; and Fig. 5 a sectional elevation of a modified form of frame.

Referring to the particular embodiment of my invention as shown in Figs. 1 and 2, the same comprises essentially a frame or fixture of novel construction and an ordinary Stillson wrench having a handle formed with a jaw and carrying a pivoted frame in which is slidingly mounted a threaded shank formed with a second jaw and engaged by an adjusting nut, the wrench being mounted in and coöperating with such fixture. As shown, this frame consists of a base 1, opposite parallel vertical standards or posts 2 and a connecting top or cross piece 3. At its rearward end the base is provided with opposite parallel upwardly extending flanges 1^a which are beveled on their inner upper corners at 1^b for a purpose hereinafter explained. This frame is provided with a force feed screw 4 screwing through the cross piece and provided with a suitable handle such as the handle 5. The base 1 is of two different heights, the forward portion being adapted to support the shank of the movable jaw of the Stillson wrench as hereinafter explained.

Describing now more particularly a wrench of the type mentioned and suitable for the embodiment of my invention, the same comprises, as illustrated in Figs. 1 and 2, a movable jaw 6 having its shank portion 6^a resting on the higher or thicker portion of the base 1 and provided along its length with the usual screw-threads 6^b engaged by the adjusting nut 7 for moving the shank and jaw longitudinally. This nut is mounted in the usual so-called frame 8 which is pivoted upon the forward end of the other jaw 9 at the point 10. The flat spring 11 tends to keep this frame in normal position, such spring being the one usually employed in a Stillson wrench. The jaw 9 may be provided with a shank or handle 9^a which may be of the usual size or length as shown in Fig. 3 or otherwise, as desired.

As stated, the shank 6^a of the movable jaw rests upon the base and it will also be noted by examination of Fig. 2 that the nut 7 is supported by the inclined inner faces of the flanges 1^a, whereby the nut and associated parts are not only supported at this point, but the nut is prevented from turning after the proper adjustment has been secured.

Describing the operation, the wrench is inserted in the frame and the object to be gripped or clamped, such as a pipe, is placed between the two jaws 6 and 9 which are adjusted or spread far enough apart to easily admit the pipe. Thereupon the screw 4 is screwed downwardly and the jaw 9 is forced to gripping position against the pipe. In this operation a slight pivoting movement is permitted by the frame 8 against the tension of the spring 11 so as to give the proper gripping position and therefore the proper gripping action upon the pipe. When the screw is screwed upwardly and the pipe is removed, the spring will restore the jaw 9 to its proper position. It will be understood that the jaw 6 is first adjusted to such a position as to substantially admit the pipe between the two jaws so that the other jaw 9 when operated by the feed screw will obtain the proper gripping action upon the pipe.

Referring next to the embodiment of my invention as shown in Fig. 3, the same character of Stillson wrench is employed as in Fig. 1 and consequently the same reference figures are employed therefor. However, the wrench, instead of having the movable jaw placed in a horizontal position with respect to the frame, is placed at an angle with the inner end of the jaw 6 resting upon the base of the frame. Also the handle portion of the wrench is supported from the main frame. Referring to this frame, the

same comprises a base 12, opposite parallel vertical standards 13 and a connecting top or cross piece 14 through which the screw 4 is screw threaded. The base is provided on opposite sides with parallel flanges 12^a which have a channel in which the bottom of the jaw 6 is confined and supported. At its rearward end the base is provided with a vertical post 15 to whose upper end is pivoted an H-shaped link 16. The slot thus provided in the upper end of this link receives the shank 9^a of the jaw 9 which is held therein by means of the set-screw 17.

The operation of this form of device is substantially the same as that shown in Fig. 1.

In Fig. 5 I have shown a simple form of frame comprising merely a closed band 18 having a cross piece 19 through which screws the feed screw 20 carrying at its lower end a disk or nut 21 adapted to bear against the jaw 9 of the wrench. In this form of construction the shank 6^a bears against the bottom of the frame 18. The operation in the clamping or gripping of a pipe or other object is substantially the same as in the other two forms above described. This particular construction of frame is useful as a hand device as distinguished from other frames which are more particularly intended to be supported or secured to a bench or other support.

I claim:

1. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a fixture in which such wrench is bodily received and which includes a frame having a base on which the longitudinally movable jaw of the wrench rests, and means in the frame adapted to force the other jaw to gripping position.

2. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a fixture in which such wrench is bodily received and which includes a frame having a base on which the longitudinally movable jaw of the wrench rests, and a feed screw in the frame adapted to force the other jaw to gripping position.

3. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a fixture in which such wrench is bodily received and which includes a frame having a base on which the longitudinally movable jaw of the wrench rests and having opposite standards between which the wrench passes and also having a top cross piece connecting such standards, and a feed screw screw-threaded into the cross piece and adapted to force the other jaw to gripping position.

4. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a fixture in which such wrench is bodily received and which includes a frame having a base on which the longitudinally movable jaw of the wrench rests, means in the frame adapted to force the other jaw to gripping position, and means on the frame for holding the wrench handle.

5. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a fixture in which such wrench is bodily received and which includes a frame having a base on which the longitudinally movable jaw of the wrench rests, means in the frame adapted to force the other jaw to gripping position, and means on the frame for holding the wrench handle consisting of a link pivoted on the frame and arranged to clamp the wrench handle.

6. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a frame in which such wrench is supported and which includes opposite flanges on which the nut rests.

7. A vise comprising, in combination with a wrench including a jaw having a threaded shank and a frame equipped with an adjusting nut for moving said shank and jaw longitudinally and also including a second jaw and connected handle pivoted to said frame, a frame in which such wrench is supported and which includes opposite flanges having beveled corners on which the nut rests.

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