E. A. VELDE.

PIPE VISE BENCH.

APPLICATION FILED MAR. 7, 1918.

1,278,401. Patented Sept. 10, 1918.

FIG. 1.

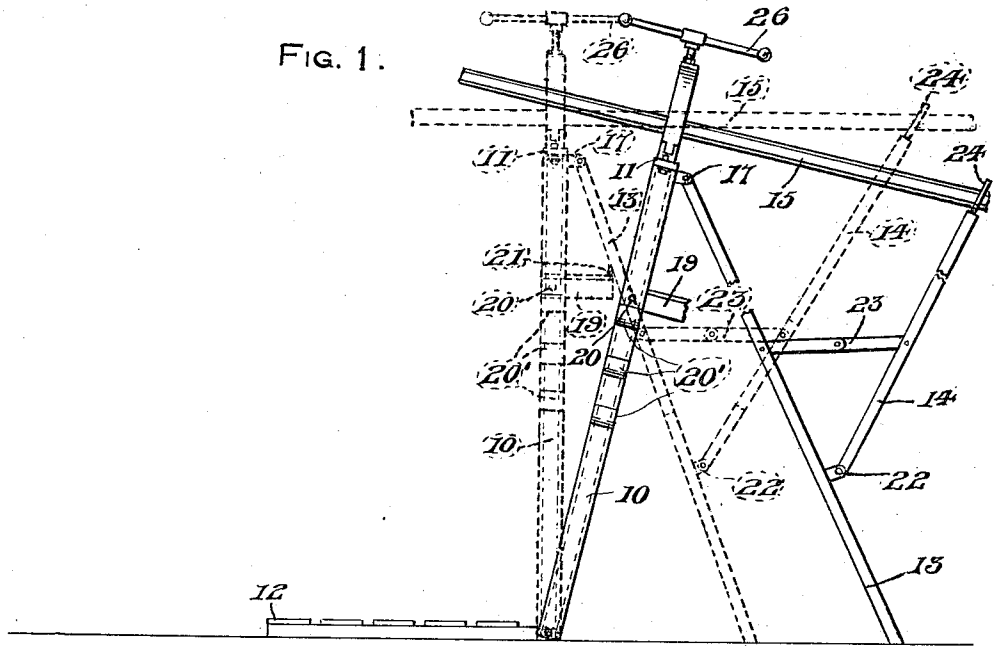


FIG. 2.

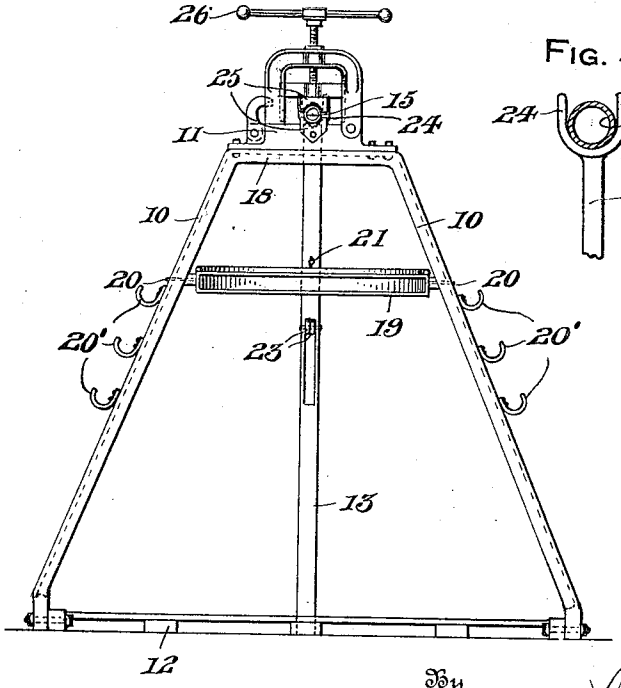


FIG. 3.

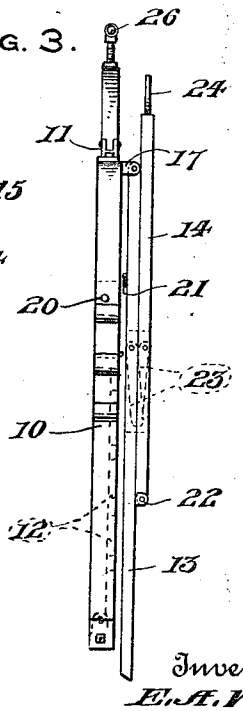


FIG. 4.

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PIPE-VISE BENCH.

1,278,401. Specification of Letters Patent. **Patented Sept. 10, 1918.**

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To all whom it may concern:

Be it known that I, ERNEST A. VELDE, a citizen of the United States of America, residing at Cedar Rapids, in the county of Linn and State of Iowa, have invented certain new and useful Improvements in Pipe-Vise Benches, of which the following is a specification.

This invention relates to certain new and useful improvements in a pipe vise bench.

The main object of my invention is to provide a pipe vise bench which is wholly self-supporting, requiring no attachments whatever for the fastening thereof, and ready for use as soon as the same is unfolded and stood up on the floor or other support. Further to provide a pipe vise bench by means of which considerable time may be saved, and inconvenience and annoyance in pipe fitting and pipe cutting jobs eliminated.

A further object of the invention is to provide a pipe vise bench or stand which will be comparatively light in construction yet strong and durable, easily transferable so that it may be readily set up at any place desired for use, and which will be held solid when in use by the weight of the operator standing on a platform that is hinged to the bench or stand in a suitable manner, and which folds within the bench when the latter is not in use. A further object is to provide means in a bench or stand of this character for the holding of the desired tools or parts so that they may be ready at hand when required for use.

With the above and other objects in view as the invention will more fully appear the same is more fully described and then claimed, the same resides in the novel construction, combination and arrangement of parts of which a practical illustration is embodied in the accompanying drawings, in which—

Figure 1 is a side elevation of the pipe vise bench or stand constructed in accordance with my invention, showing the same in its pipe-supporting and holding position with a section of pipe clamp therein, and also showing in dotted lines how the bench may be arranged in a vertical position for use when desired,

Fig. 2 is a front elevation of the same,

Fig. 3 is a side view of the pipe vise bench or stand in its folded position, and

Fig. 4 is a detail view of the pipe supporting stirrup and a part of the supporting arm thereof.

To put my invention into practice, I provide a supporting frame 10 substantially in the form of an inverted U, and which for convenience in strength I have generally made out of channel iron. On the top or connecting bar 18 of this frame the vise 11 is mounted, the vise being of any well known or desired type which can be opened for the purpose of the insertion of a pipe 15, and having clamping jaws 24, 25 for clamping the pipe, the latter jaw carried on a turn-screw having a suitable operating handle 26.

A platform 12 of any suitable construction is hinged to the stand 10 at the lower ends of its legs, and is adapted to fold within the stand 10 as shown in dotted lines in Fig. 3 of the drawings. When opened to extend at right angles to the stand 10 and rest upon a floor or other support shown in Fig. 1, this platform forms a stand for the operator while threading or cutting the pipe, the weight of the operator acting to hold the stand rigidly and firmly during such operation.

The stand or vise bench is further supported by a back-brace 13, pivoted as at 17, to the stand and adapted to fold thereagainst as shown in Fig. 3 of the drawings. At a point above the lower end of this brace 13 is pivoted as at 22, a supporting arm 14 extending upwardly and rearwardly at an incline and having at its upper end a supporting stirrup 24 which is in a substantially horizontal line with the opening in the vise, so that the pipe 15 is supported at two widely separated points in order that the same may be firmly supported for work thereon. Hinged links 23 connected to the brace 13 and the arm 14 hold the latter in extended position.

A supporting tray 19 is pivotally mounted as at 20 between the legs of the stand 10 for holding tools or other parts desired in the work, and when not in use, is swung between the legs of the stand so as not to interfere with the folding of the brace 13. When swung outwardly to supporting position, this tray or holder may be suitably attached as at 21 to the brace 13 so as to hold it in supporting position. On each leg of the stand, the same is preferably provided with hooks 20′ for the purpose of holding pipes within easy reach of the operator.

The manner of setting up the stand will be clearly apparent from the foregoing description and the drawings. The tray or holder 19 may be of any desired form, such as a pocket or drawer in which parts or tools may be kept which will be retained therein when the holder is swung to its folded position. The device may be easily transferred from place to place where it is desired for use, and when not in use folds up in comparatively small form as shown in Fig. 3 of the drawings and occupies very little space.

The most convenient arrangement for use is that shown in full lines in Fig. 1, the stand inclined rearwardly which presents the end of the pipe in the best position for working thereon. However, it will be observed that the stand may be arranged with the legs in a vertical position as shown in dotted lines in this figure, no change in the structure being necessary, all that is required being adjustment of the brace 13 so as to support the stand in the desired position, the fastening 21 being of such nature as to permit of this movement of brace 13.

While the description and drawings represent a preferred embodiment of the invention, it will be understood that various changes may be made in the form and construction without departing from the spirit of the invention as claimed.

What I claim as new is:—

A pipe vise bench comprising the combination with a supporting frame 10 adapted to have a pipe vise mounted thereon, a platform 12 hinged to the lower end of said frame, and a rear supporting brace 13 for said frame hinged to the latter near its upper end, of a pipe supporting arm 14 having stirrup 24 for the reception of a pipe and foldably carried by said brace, and links 23 supporting the arm 14, substantially as and for the purpose described.

In testimony whereof I affix my signature.

ERNEST A. VELDE.

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