H. M. MINNIS.

UNIVERSAL VISE AND CARPENTER'S TOOL.

APPLICATION FILED AUG. 20, 1917.

1,288,112.

Patented Dec. 17, 1918.

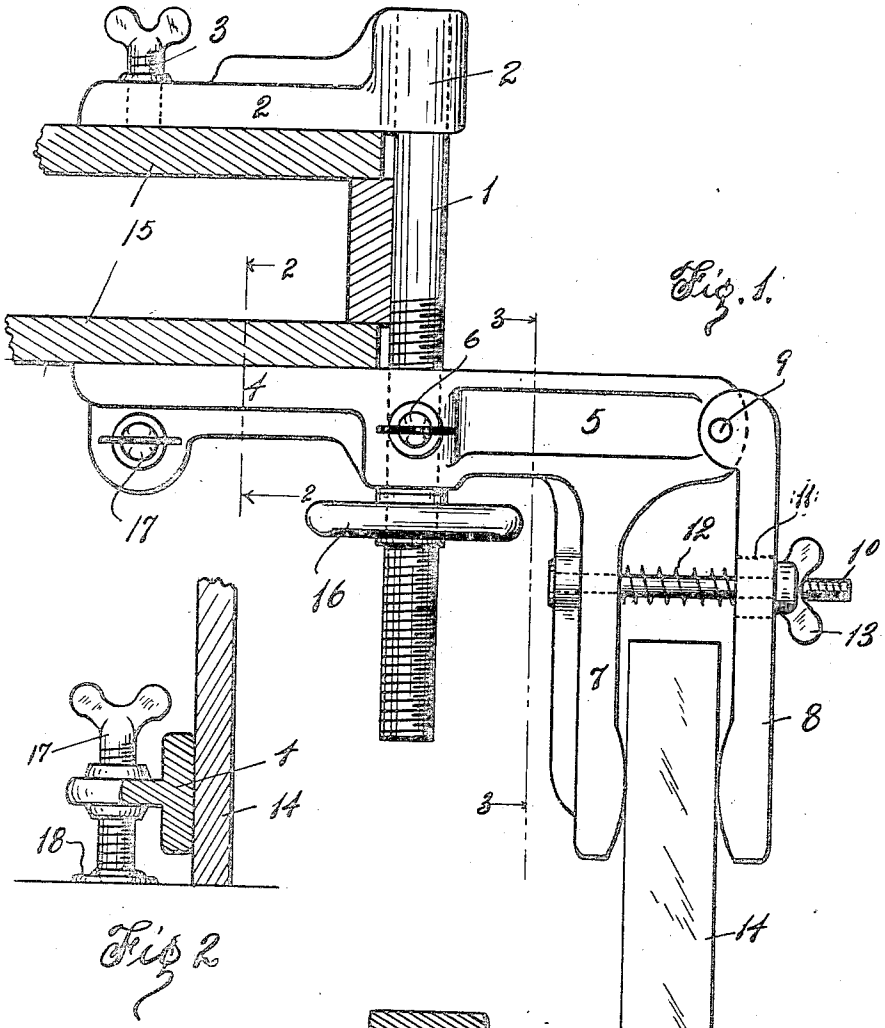


Fig. 1.

Fig 2

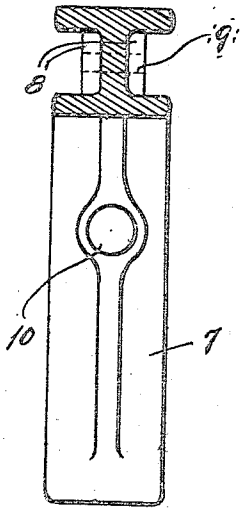


Fig. 3.

INVENTOR

Henry M. Minnis.

ATTORNEY

UNITED STATES PATENT OFFICE.

HENRY M. MINNIS, OF WYLIE, TEXAS.

UNIVERSAL VISE AND CARPENTER'S TOOL.

1,288,112. Specification of Letters Patent. Patented Dec. 17, 1918.

Application filed August 20, 1917. Serial No. 187,324.

To all whom it may concern:

Be it known that I, HENRY M. MINNIS, a citizen of the United States of America, residing at Wylie, in the county of Collin and State of Texas, have invented certain new and useful Improvements in Universal Vises and Carpenters' tools, of which the following is a specification.

This invention relates to a new and useful form of carpenter's or woodworker's tool in the way of a universal vise designed and adapted for the purpose of clamping and holding a door or window frame to be planed or shaped down, or otherwise worked on for the purpose of getting the door or window in proper shape for installation. It is understood by those conversant in the carpenter's and woodworker's art that doors must be carefully shaped and planed to exact sizes before hanging and it is very inconvenient for carpenters in hanging doors not to be provided with some form of universal vise which they may clamp to some door jamb and hold the door in a vertical position while the edge is shaped down. The object of this invention is to provide an effective form of vise clamp for holding a door in a vertical position while the edge thereof is worked down with the plane or other tool.

With the above and other objects in view the invention has relation to a certain combination and arrangement of parts, an example of which is described in the following specification, pointed out in the appended claims and illustrated in the accompanying drawings: wherein:

Figure 1 is a view illustrating its mode of clamped application to a door jamb and at the same time holding a door, piece of timber or other material to be planed.

Fig. 2 is a view taken upon the line 2—2 of Fig. 1.

Fig. 3 is a view taken upon the line 3—3 of Fig. 1.

Referring now more in particular to the drawings, wherein the same parts throughout are indicated by the same reference characters, the numeral 1 designates a shaft or stem of steel of substantial size and suitable length. Upon one extremity is fixed in a permanent and immovable relation a jaw 2. The jaw is provided with a thumb set screw 3, screw-threaded into the outer extremity of the jaw and adapted to be tightened against any surface to which the jaw piece may be applied. A companion jaw member 4 with an integral extended arm 5 is slidably confined upon the shaft and provided with a thumb setscrew 6, used for the purpose of clamping or fixing the jaw member 4 in any desired position upon said shaft. The members 2 and 4 are jointly correlated with the stem 1 and act as companion jaws similar to a vise. These jaws are provided with hubs as illustrated for connection with the stem 1. A jaw 7 is integrally formed with the member 4—5. A hinged jaw 8 is pivoted upon a pin 9 fixed in the outer extremity of the arm 5. A threaded cap-screw or bolt 10 is permanently fixed in the jaw 7 and is passed through an elongated or slotted opening 11 formed in the jaw 8. A compression spring 12 is confined on the bolt 10 between the companion jaws 7 and 8 for the purpose of keeping them in an outwardly limited position, apart one from the other. A thumb-nut 13 is screw-threaded on a bolt for the purpose of bringing the hinged jaw into clamped contact with any member to be held thereby. The drawings illustrate a door or other material 14 clamped between the jaws 7 and 8, while the vise-jaws 2 and 4 are clamped in a fixed position upon a door jamb or other suitable object 15. The thumbscrew 3 may be used if desired to further fix and clamp the member 2 against the jamb. A hand wheel 16 is screw-threaded upon the shaft and brought in pressure contact against the hub of the member 4—5 for clamping the vise-jaws upon the jamb or support 15. The thumb screw 3 may be brought in contact with the stem to further lock the member 4—5 thereon. A thumb screw 17 is screw-threaded in the projecting lug or web of the jaw 4. This last-indicated member is provided with a swivel flange 18 used as a pressure foot on said screw to be brought in contiguous engagement with the floor when the vise jaws 2 and 4 are clamped upon a door which may have already been mounted upon its hinges. This arrangement will lock the door in any swung position so that the carpenter may perform any work thereon which he desires after the door is hung. This last described use of the device is illustrated in Fig. 2 where the member 18 under pressure of the screw is indicated to be in contact with the floor line and the door 14 ranged adjacent thereto in a vertical position. Fig. 2 partially illustrates this function of the device.

for in actual use the clamp jaws 2 and 4 would hold the door in a manner similar to its illustrated position upon the jamb 15, at which time the members 17 and 18 would be pressed against the floor for holding the door in a locked position. The jaw clamps 7 and 8 are provided with an arcuate clamping surface as illustrated which surface presents a minimum surface engagement with the surface of the door thereby lessening the degree of marks, wear or impression left in the floor after the jaws are released. The working faces of the jaws may be covered with leather or other yieldable material if desired.

The invention is presumed to include all such changes and modifications in design and form which may be construed to come within the purview of the following claims:

Claims.

1. In a tool of the character described, a clamp tool comprising a main casting, a jaw formed therewith at right angles to the length of the main casting, a jaw member pivoted on the main casting and coöperating with the first named jaw member, a screw-threaded shaft, a jaw fixed to one end of the shaft, a hand wheel on the shaft adapted to exert a pull on the shaft, and a set-screw in the casting to engage the shaft when quick adjustment is necessary and the hand wheel is not used.

2. In a tool of the character described, a clamp tool comprising a main member, a jaw formed on said main member, a coöperating jaw pivoted to clamp against the first named jaw, a shaft passed through an opening in the main member and slidably confined therein, a jaw clamp carried on the end of the shaft, a set-screw screw-threaded in the main member to engage the shaft for holding it in clamping position.

3. In a tool of the character described, a clamp tool comprising a straight edge with a jaw member formed integrally and at right angles therewith, a pivoted jaw adapted to coöperate with the integral jaw, a shaft fitted with a jaw clamp and slidably confined in the straight edge member, a set-screw threaded into the straight edge member and against the shaft, a set-screw in the jaw on the shaft for holding same steady in clamped position, a set-screw in the straight edge member screw threaded thereinto right angular to the shaft so as to bear against another surface such as the floor and hold a clamped object in a fixed position, and a hand-wheel screw threaded upon the shaft for drawing on the straight edge member and the jaw carried by the shaft.

In testimony whereof I hereunto affix my hand.

HENRY M. MINNIS.