June 26, 1951 U. F. WATSON 2,558,404

DOOR SUPPORTING CLAMP WITH ELEVATING MEANS

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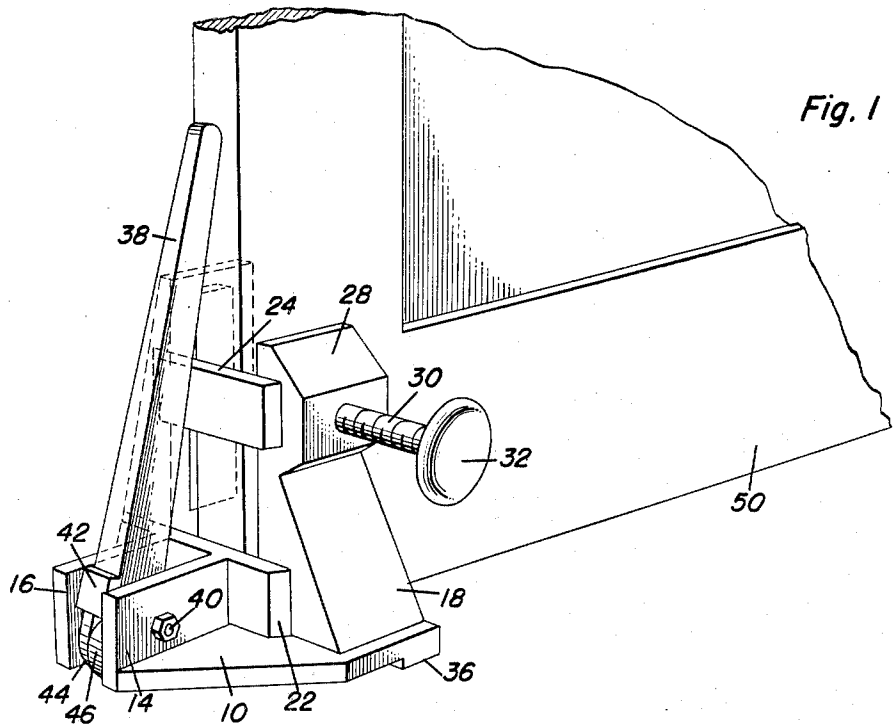



Fig. 1

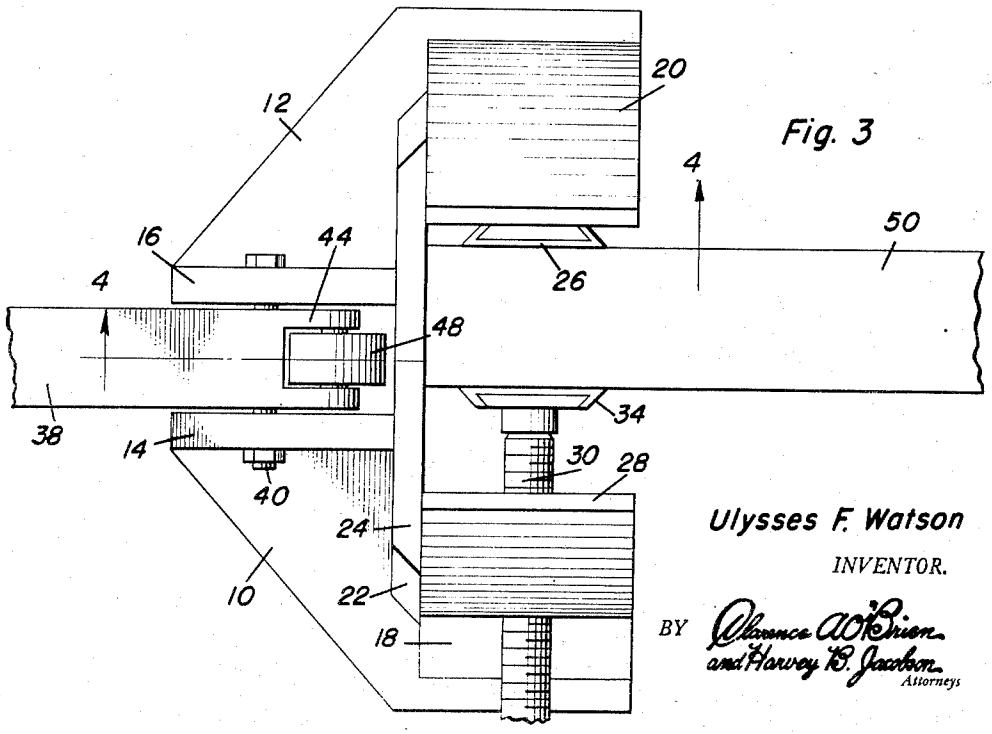



Fig. 3

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Fig. 2

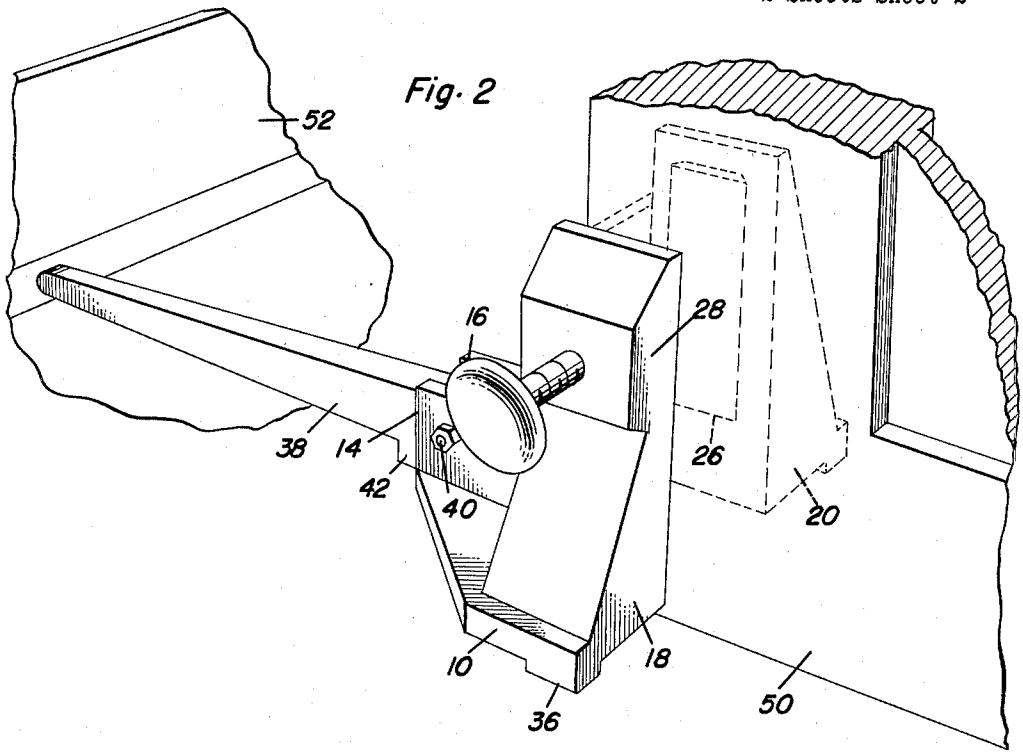



Fig. 4

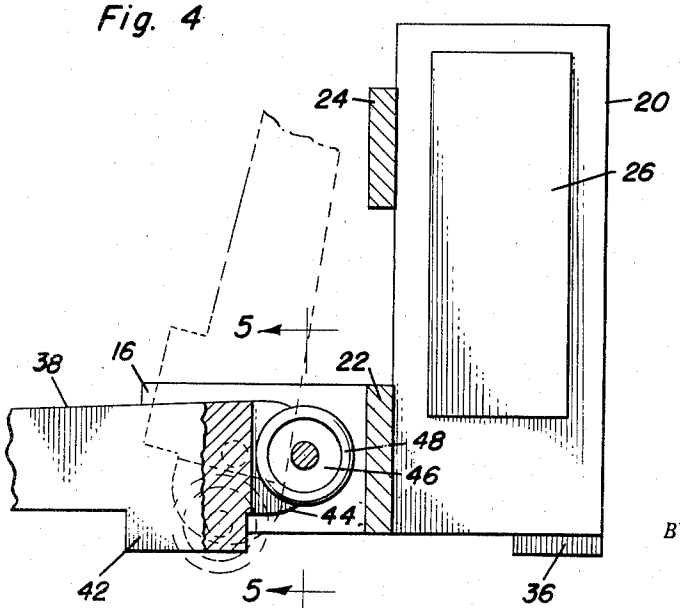
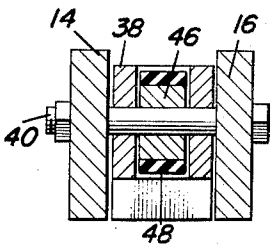



Fig. 5




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## DOOR SUPPORTING CLAMP WITH ELEVATING MEANS

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2 Claims. (Cl. 144—296)

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This invention relates generally to hand tools and more particularly to a carpenter's tool of the general character of a vise for holding doors, window sashes and the like, while the same are being worked upon by a craftsman.

The device has been developed primarily to hold doors or the like in a vertical position so that operations may be performed, as for example on the style of the door, in sawing, planing or the like, or in the installation of locks, and it will be noted that the door can be supported against swinging or sagging while operations are being performed on the door or the hinges thereof while the door is still at least partially supported by the hinges, similar operations being envisaged with regard to window sashes and like structures.

Another object of this invention is to provide these tools with not only a screw jack whereby the work may be clamped in the tool, but also a lever jack for raising and lowering at least a portion of the tool, with the work clamp therein.

Yet another object of this invention is to provide such a tool with a lever jack, the lever or handle of which is of a considerable length and adapted to function as the spacer or abutment member which can be made to engage a wall or other fixed vertical structure, so that the tool and the work clamp therein may be more rigidly supported, thus facilitating an operation such as sanding, planing or the like.

Yet another object of this invention is to provide the tool with a jack lever, as mentioned above, and to provide the jack lever with a heel portion extending beyond the pivot point of the lever and carrying an anti-friction element which can be made to engage the floor when the lever is raised, thus not only raising the tool but also providing for easy rolling of a heavy door along the floor.

A last object of the invention specifically is to provide a device of the character mentioned above which is relatively inexpensive and practical to manufacture, which is safe, simple and expeditious in use, and which will give generally efficient and durable service.

With these objects definitely in view, this invention resides in certain novel features of construction, combination and arrangement of elements and portions as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form a material part of the specification, and in which:

Figure 1 is a fragmentary view of a door with this invention operatively secured thereon, the lever jack being in a position to raise the tool and the work clamped therein a short distance above the floor;

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Figure 2 is a somewhat similar figure, also in perspective, showing the jack lever in lowered position and in engagement at its outer end with a vertical wall structure, as when the jack lever is used to stabilize the tool so that the work clamp therein is more firmly held during an operation such as planing or sanding the style of the door;

Figure 3 is a fragmentary top plan view of the invention, the figure also including a fragmentary portion of a door;

Figure 4 is a fragmentary vertical sectional view, taken on the section line 4—4 in Figure 3; and,

Figure 5 is a vertical sectional view taken substantially on the line 5—5 in Figure 4.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the different views of the drawings.

Referring now to the drawings in detail, this tool includes a base comprised of angle plates 10 and 12 having vertical flanges 14 and 16 spaced apart and arranged in opposing relation as clearly indicated in Figure 3. A pair of blocks 18 and 20 are rigidly secured in upstanding position and spaced apart, upon the upper faces of the angle plates 10 and 12. These blocks may be integral with the angle plates, if desired. A lower cross brace 22 and an upper cross brace 24 are welded or otherwise suitably secured to co-planar faces of the blocks 18 and 20, and the lower brace 22 is also rigidly secured to the ends of the upright flanges 14 and 16, whereby a work receiving space is provided in the tool and is defined in part by the opposing flat faces of the blocks 18 and 20 and the cross braces 22 and 24.

A resilient pad 26 is rigidly mounted by any suitable means on the flat face of the block 20 adjacent to the block 18, and this pad 26 has a work engaging flat face. An enlargement 28 is formed in the upper portion of the block 18 and a threaded shank 30 of a screw jack comprised of this threaded shank, a manual control knob 32 and a work engaging head 34, is operatively mounted on the enlargement 28, the threaded shank 30 being threaded transversely through the enlargement 28, with the head 34 registering with the upper portion of the pad 26.

The angle plates 10 and 12 have feet 36 on the portion thereof adjacent to the blocks 18 and 20. A lever jack assembly provides adjustable support

for the portion of the tool remote from the feet **36**. This assembly includes a lever **38**, preferably tapered as illustrated in the drawings, and pivoted on a pivot bolt **40** extending transversely through the upright flanges **14** and **16**. This lever has a foot **42** on one side thereof and when the lever is depressed, as illustrated in Figure 2, this foot **42** engages the floor and, along with the feet **36**, supports the tool and any work clamped therein. The lever has a bifurcated heel portion **44** with a floor contacting roller **46** rotatably mounted between the furcations, this roller being preferably rubber tired, as indicated as at **48**, and the distance between the pivot bolt **40** and the edge of the roller remote therefrom is greater than the distance from the pivot bolt **40** to the under face of the foot **42**, so that when the lever **38** is moved into the position indicated in Figure 1 at least one side of the tool is raised. Ordinarily the whole tool and work clamped therein is also raised when the lever is moved from the position indicated in Figure 2 to the position indicated in Figure 1.

The work used with this invention is illustrated by the door **50** and a wall **52** is indicated in Figure 2, and the operation of this invention will be readily understood from a consideration of the foregoing description of the mechanical details thereof, when taken in connection with the above recited objects and the drawings. In recapitulation, it will be noted that the work **50** is clamped between the pad **26** and the screw jack head **34**. When further support is required, as in planing the style of a door **50**, the lever **38** may be made to abut the wall **52**. Ordinarily the workman does not need to straddle the door in planing the same or in installing a lock in the door. When it is desired to raise the work slightly, the lever **38** is raised as indicated in Figure 1. Otherwise the foot **42** coacts with the feet **36** to support the tool.

Having described the invention, what is claimed as new is:



1. A carpenter's tool comprising a base, upstanding blocks rigidly secured on said base in horizontally spaced relation, a screw jack operatively mounted in one of said blocks and having a work engaging head on the side of said one block adjacent the other block, a pad on said other block and having a work engaging face opposite said head, and a jack mounted on said base for elevating the tool comprising a lever pivoted on said base and having a heel projecting beyond the pivot of the lever, and an anti-friction element on said heel engaging the surface whereon the tool is supported when the lever is raised, said lever having a foot on one side thereof adjacent the pivot of the lever and engaging the floor when the lever is lowered.

2. A carpenter's tool comprising a base, upstanding blocks secured on said base in horizontally spaced relation, means for clamping a work piece between said blocks, and a jack mounted on said base for elevating the tool comprising a lever pivoted on said base and having a heel projecting beyond the pivot of the lever, and an anti-friction element on said heel engaging the surface wherein the tool is supported when the lever is raised, said lever having a foot on one side thereof adjacent the pivot of the lever and engaging the floor when the lever is lowered.

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