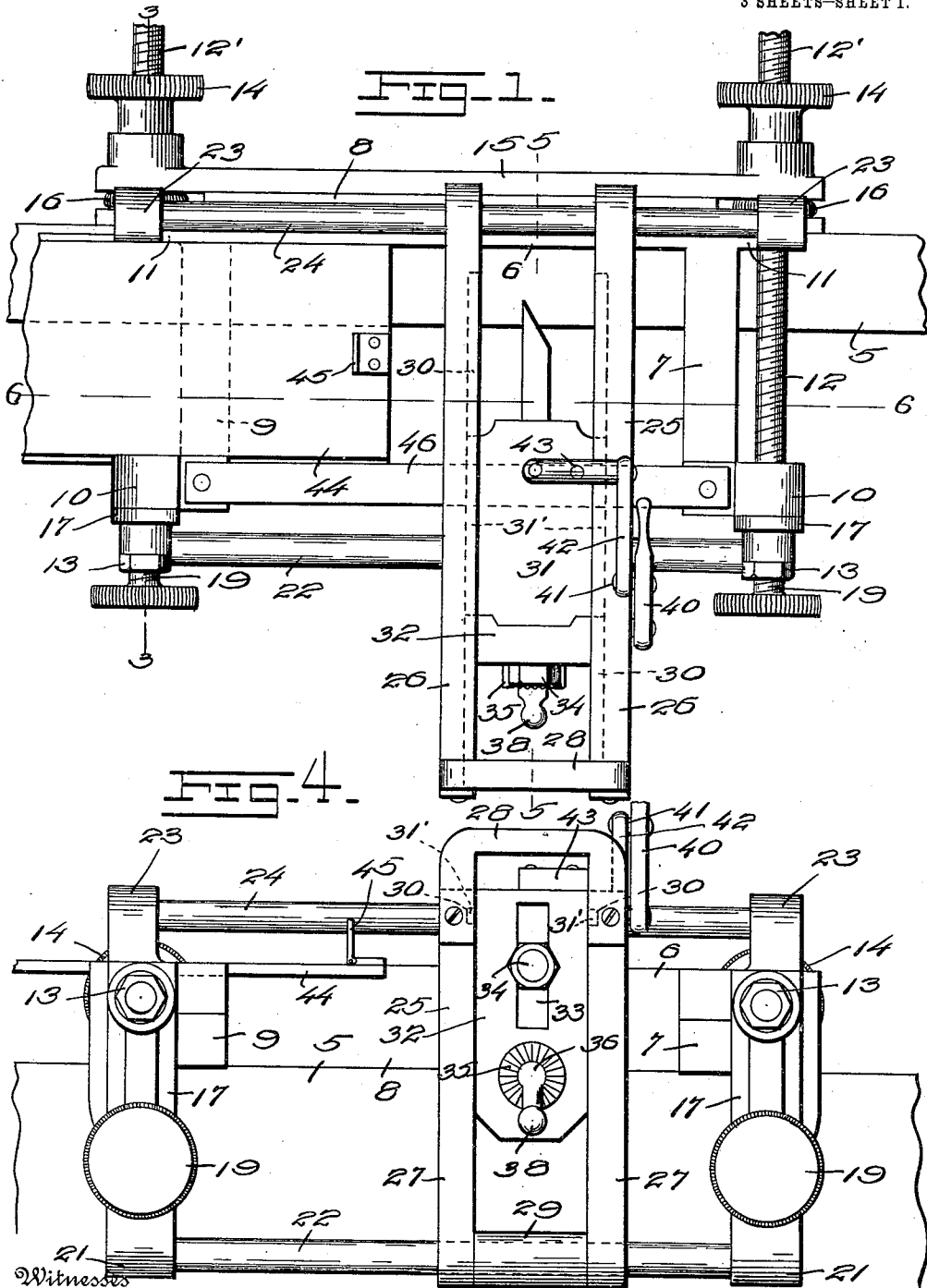


F. E. SHERWOOD.
HINGE MORTISING DEVICE.
APPLICATION FILED FEB. 8, 1910.

1,005,336.

Patented Oct. 10, 1911.

3 SHEETS-SHEET 1.



Witnesses
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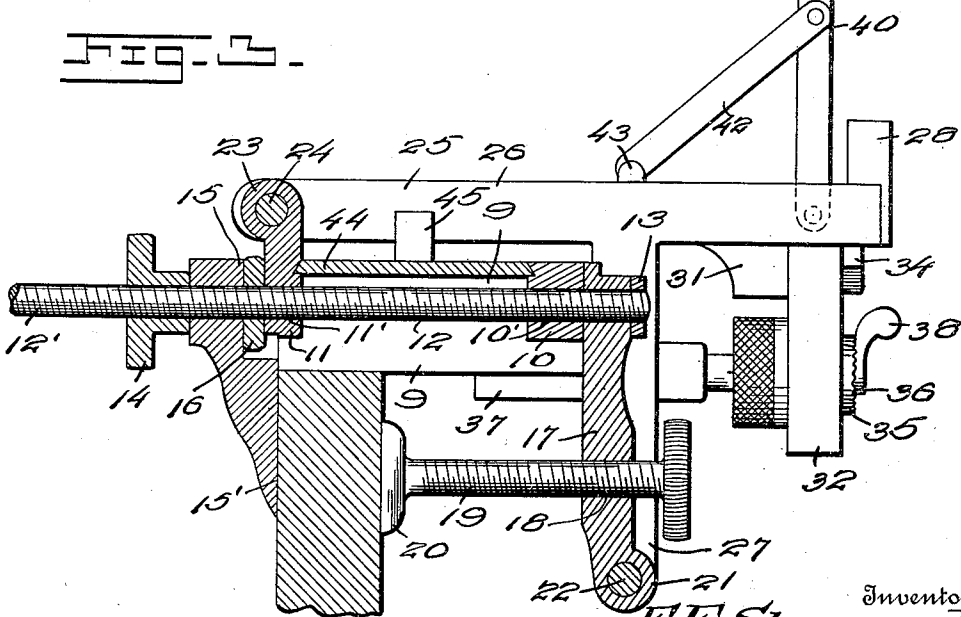
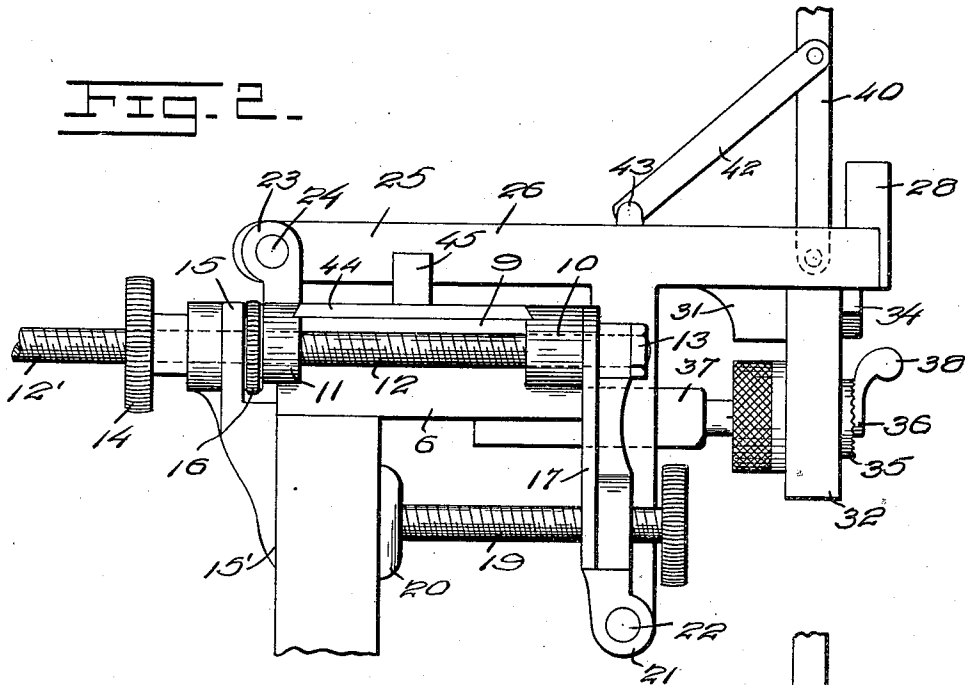
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3 SHEETS—SHEET 2.



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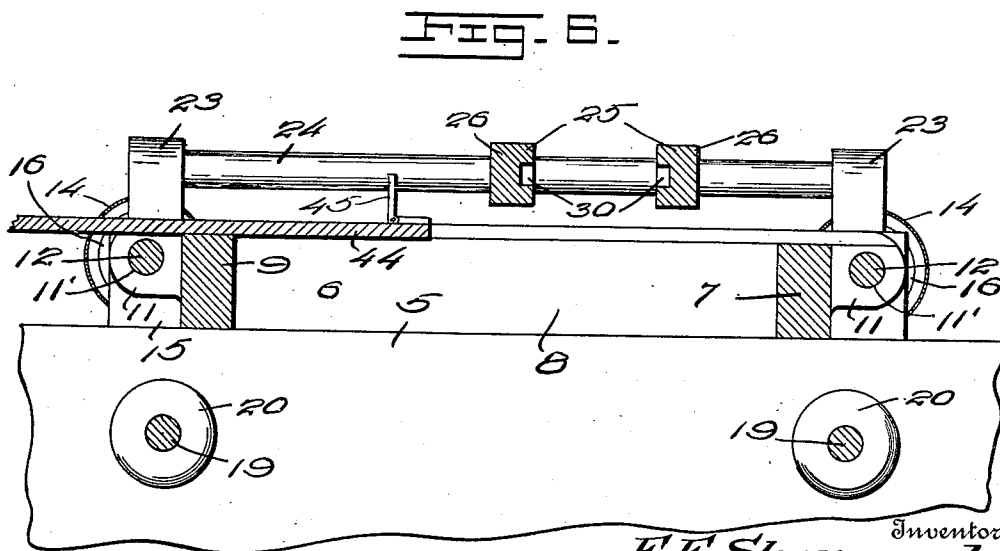
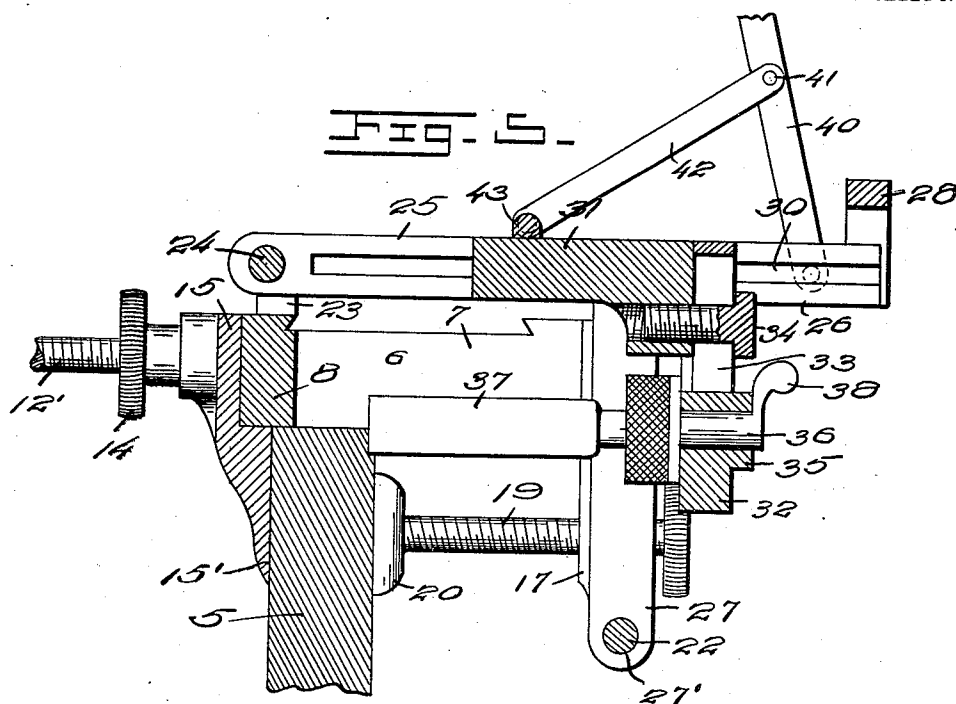
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

FRANK E. SHERWOOD, OF SCARSDALE, NEW YORK.

HINGE-MORTISING DEVICE.

1,005,336.

Specification of Letters Patent.

Patented Oct. 10, 1911.

Application filed February 8, 1910. Serial No. 542,690.

To all whom it may concern:

Be it known that I, FRANK E. SHERWOOD, a citizen of the United States, residing at Scarsdale, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Hinge-Mortising Devices, of which the following is a specification.

This invention relates to carpenter tools and more particularly to hinge-seat mortising devices, and has for its object to provide a device which may be attached to a door and which may be set for the proper depth and width of the cuts for the reception of the attaching plates of hinges or butts.

Another object is to provide a device of this kind which will be simple in construction and arrangement and which may be easily set to suit plates of different sizes.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a top plan of the present invention applied to a door, Fig. 2 is an end view, Fig. 3 is a transverse section on line 3—3 of Fig. 1, Fig. 4 is a front elevation, Fig. 5 is a central section on line 5—5 of Fig. 1, Fig. 6 is a section on line 6—6 of Fig. 1.

Referring now to the drawings, there is shown a door 5, having the present invention attached thereto.

The mortising device itself comprises a rectangular elongated frame 6, including a longitudinally extending rear bar 8 and a pair of spaced transversely extending and forwardly projecting end members 7 and 9 respectively. Oppositely projecting outwardly directed ears 11 are carried by the frame at the union of the rear bar 8 and the end members 7 and 9, and are in effect outward extensions of the rear bar 8. These ears 11 correspond to ears 10 which extend outwardly in parallel relation from the forward ends of the end members 7 and 9, and have openings 11' therein registering with openings 10' in the ears 10, for the recep-

tion of transversely extending threaded rods 12 secured in the forward ears 10 by means of nuts 13, and extending beyond the rearward ears 11 as indicated at 12'. Hand nuts 14 are engaged with the rearwardly extending portions 12' of the rods 12, and slidably engaged upon the rods forwardly of the hand nuts and rearwardly of the rearward member 8 of the frame 6, there is a longitudinally extending clamp member 15, having a face 15' extending below the frame to rest against the rearward face of the door as will be later brought out. Adjustable stop nuts 16 are engaged with the rods 12 forwardly of the clamp member 15, so that the position of this clamp member with respect to the frame may be varied and the clamp member may be securely locked in such position.

Held to the forward ends of the end members 7 and 9 by means of the rods 12 and the nuts 13, there are a pair of depending hangers 17, having threaded openings 18 formed therethrough and receiving threaded clamp rods 19, having clamp faces 20 for coöperation with the depending clamp face 15' of the clamp member 15 to grip and hold a door therebetween. This arrangement is clearly shown in Fig. 2.

Ears 21 are carried by the lower ends of the hangers 17, and have engaged therein a horizontally extending bar 22, which is thus located a considerable distance below the frame 6. Upwardly extending brackets 23 are carried by the ears 11, as shown, and receive the ends of a horizontally extending bar 24 which is thus elevated above the rearward bar 8 of the frame 6. A frame 25 is provided, and includes a pair of parallel horizontally disposed top members 26 which are slidably engaged at their rearward ends upon the bar 24. As shown, the parallel members 26 extend beyond the forward portion of the frame 6, and forwardly beyond the bar 22. A pair of depending members or legs 27 are carried by the members 26 above the bar 22, and these legs 27 have openings 27' in their lower ends which receive the bar 22, so that the legs are slidably thereupon. Engaged with the bar 22 between the lower ends of the legs 27, there is a sleeve 29. It will thus be seen that the frame 25 includes the horizontal top portions and the vertically extending portion slidably engaged with the bar 22, while the

top portion is slidably engaged with the bar 24. The entire frame is thus shiftable longitudinally of the frame 6, as shown.

A connecting member 28 is secured to the forward ends of the parallel members 26, resting upon the upper face thereof, and formed in the inner faces of the members 26, there are a pair of parallel coinciding grooves 30, which receive the reduced edge portion 31' of a sliding block 31.

A vertically extending plate 32 is disposed against the forward end of the block 31, this plate 32 having a longitudinally extending vertical slot 33 formed therein, through which there is engaged a set screw 34 threaded into the block 31. It will thus be seen that the plate 32 may be shifted vertically, and that it may be held at different points of its movement by the set screw 34.

A forwardly extending boss 35 is formed upon the lower portion of the plate 32, and engaged through the plate and through this boss there is a stem 36 carried by a chisel 37.

A laterally extending lever 38 is carried by the forward end of the stem and has a serrated inner face for engagement with serrations upon the forward face of the boss 35 to hold the lever 38 with the chisel 37 in different positions, it being understood that the chisel extends rearwardly as shown.

From the foregoing it will be understood that the block 31 may be slid forwardly and rearwardly between the side members 26 of the frame 25 to bring the chisel 37 into and out of engagement with the door 5 with which the present mechanism is engaged. To regulate the depth of cut of the chisel, the plate 32 may be shifted vertically as stated, and to regulate the angle of cut, the chisel may be turned by means of the lever 38, as just described.

For the purpose of reciprocating the block 31, an upwardly extending lever 40 is pivoted at its lower end against the outer face of one of the side members 26, and is provided with an inwardly extending wrist pin 41, upon which there is pivoted a rearwardly extending link 42 pivoted upon its rearward end upon an upwardly and laterally extending stem 43 carried by the block 31. As will be understood, the wrist pin 41 is below the upper end of the lever 40, and thus movement of the lever is communicated to the block 31.

The depth of cut of the chisel transversely of the door edge may be varied by shifting the position of the clamp member 15 with respect to the rear member 8, as will be understood, and the length of the excavation for a hinge may be set through the medium of a plate 44 slidably mounted in the frame 6 and movable toward and away from the end member 7. This plate 44 may be set to expose a proper amount of the surface of the edge of the door, through which the

working of the chisel may be observed, and mounted upon the plate 44, there is a foldable stop 45 which may be set to limit the sliding movement of the frame 25 in one direction, as will be seen.

A removable front bar 46 is provided to connect the forward ends of the end members 7 and 9 when desired.

What is claimed is:

1. A hinge seat mortising device comprising a frame, clamping means for attaching the frame to a body to be cut, guide rods carried by the upper rearward and lower forward portions of the frame, respectively, a sliding frame having means for engagement with the upper rod, vertically depending means for slidably engagement with the lower rod, a block longitudinally reciprocable in the sliding frame for movement in a direction forwardly and rearwardly at right angles to the movement of the sliding frame, a cutting member carried by the rearward portion of the block, and means for reciprocating the block.

2. A hinge seat mortising device comprising a frame, an adjustable clamp member connected with the frame, clamp screws connected with the frame for cooperation with the clamp member to hold the frame to a door to be routed, a guide bar carried by the frame at the rearward portion thereof and located above the frame, a second guide bar carried by the frame at the forward portion thereof and located below the frame, a pair of parallel members slidably engaged at their rearward ends upon the rearward guide bar, a connecting member at the forward end of the parallel members, depending legs carried by the parallel members and slidably engaged with the forward guide bar, a block slidably mounted between the parallel members, a depending plate adjustably connected with the block for vertical movement, an adjustable cutting member carried by the plate for movement when the block is moved into and out of engagement with a door with which the device is engaged, and means for moving the block.

3. In a hinge seat mortising device, the combination with a frame adapted for attachment to a door, of a guide bar carried by the frame, a pair of spaced members slidably engaged with the guide bar, said members being arranged for movement upon the guide bar longitudinally of a door with which the device is engaged, a block slidably engaged between the members, a chisel connected with the block for movement with the block at right angles to the movement of the parallel members, an upwardly extending lever pivoted to one of the members, and a link connected with the lever and with the block for movement of the block when the lever is moved.

4. In a hinge seat mortising device, the

combination with a frame adapted for attachment to the edge of a door, of a cutting device shiftable in the frame longitudinally of the door edge and reciprocable transversely of the door edge to cut the said edge, said frame being arranged for adjustment transversely of the door edge to vary the width of cuts, said cutting device being also shiftable vertically with respect to the

edge of the door to vary the depth of the cuts, and means for shifting the cutting device to vary the angle of the cuts. 10

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

FRANK E. SHERWOOD.

Witnesses:

FREDERICK WILLETS,
WM. SCHNEIDER.

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