

J. W. CARLSON.
MORTISE GAGE.
APPLICATION FILED SEPT. 14, 1911.

1,045,511.

Patented Nov. 26, 1912.

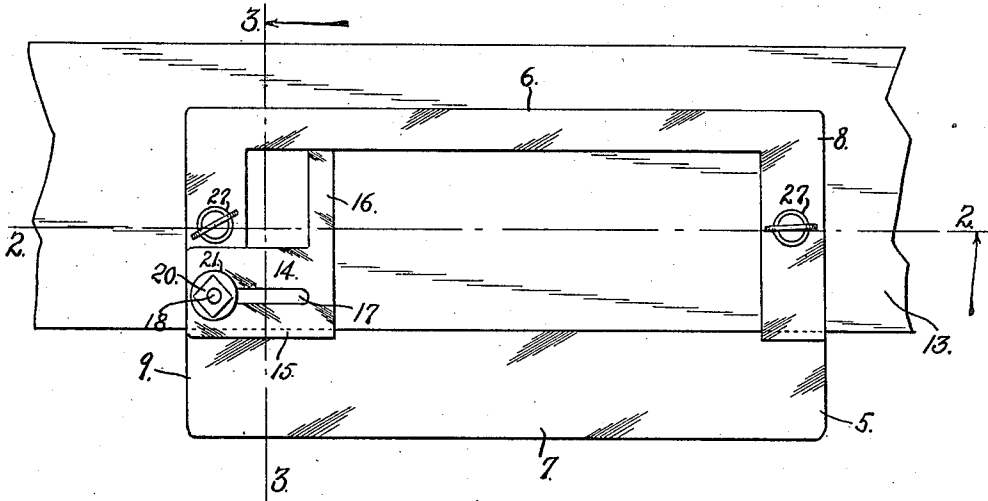


Fig. 1.

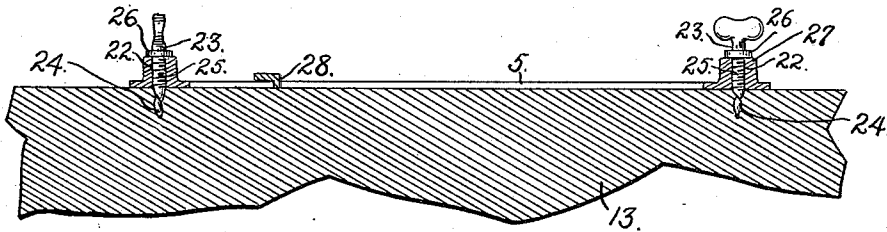


Fig. 2.

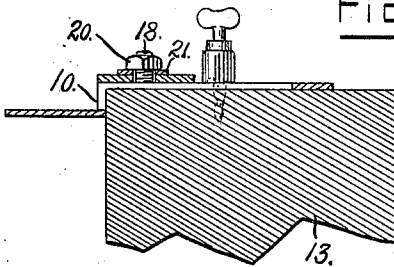


Fig. 3.

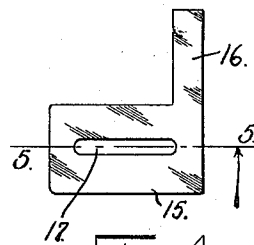


Fig. 4.



Fig. 5.

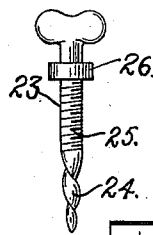


Fig. 6.

Witnesses
Olga Berley
Coime Kimbrough.

Inventor
John W. Carlson.
By John G. Powell
Attorney

UNITED STATES PATENT OFFICE.

JOHN W. CARLSON, OF DENVER, COLORADO.

MORTISE-GAGE.

1,045,511.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed September 14, 1911. Serial No. 649,404.

To all whom it may concern:

Be it known that I, JOHN W. CARLSON, a citizen of the United States, residing in the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Mortise-Gages; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in mortise gages and has for its object the facilitation of the cutting of mortises in door casings, jambs and similar places.

Another object of my invention resides, in the provision of a mortise gage constructed to be adjusted for the cutting of any desired size of mortise.

Another object of my invention resides, in the construction of a mortise gage adapted to be firmly held in position surrounding the area where the mortise is formed.

By use of my improved mortise gage the cutting of mortises, especially for hinges, lock faces, etc., is largely facilitated, since the area to be cut out in forming the mortise is completely surrounded by means of my mortise gage, whereby the material may be readily cut out within the said inclosed area.

My improved mortise gage consists, in brief, of an integral metal frame, one side of which is slightly offset from the remainder of the frame. To one end of this frame is slidably mounted an adjustable member by virtue of which the gage may be adjusted to the desired degree for the purpose of cutting different sized mortises. In order to securely hold the frame in position I provide two set screws located at opposite ends of the frame. The said set screws being passed through perforations in the frame and adapted to enter the wood to which the gage is applied.

Having set forth the objects of my improved mortise gage and described the same in brief, I will proceed to describe the same in detail, reference being made to the accompanying drawing in which is illustrated an embodiment thereof.

In the drawing; Figure 1, is a top plan view of my improved mortise gage, illustrat-

ing the same applied to a piece of material and in position for use. Fig. 2, is a longitudinal section taken on the line 2—2, Fig. 1 looking in the direction of the arrow. Fig. 3, is a cross section taken on the line 3—3, Fig. 1 looking in the direction of the arrow. Fig. 4 is a top plan view of the adjustable member. Fig. 5, is a section taken on the line 5—5 Fig. 4. Fig. 6, is a plan view of one of the set screws in which the frame is secured in position.

Let the numeral 5 designate my improved mortise gage in its entirety, consisting of side members 6 and 7 arranged parallel with each other and connected by means of end members 8 and 9. The side member 7 is relatively wider than the side member 6 and is offset from the end members 8 and 9 as shown at 10. This side member 7 is therefore supported slightly below the edge of the material 13 to which the gage is applied and extends outwardly at right angles thereto. Whereby the said member 7 serves as a sort of rest or guide for the chisel or other instrument employed in cutting the mortise.

To the end member 9 of the frame is secured an adjustable member 14, by virtue of which the gage may be adjusted to the desired size of mortise to be cut. This member 14 is provided with members 15 and 16 forming right angles with each other, the member 15 being relatively wider than the member 16 and provided with a longitudinal slot 17. Through this slot 17 a threaded pin 18 passes. The said pin being secured to the member 9 of the frame 5 and to its outer extremity is secured a nut 20. A washer 21 being interposed between the member 15 and the said nut 20.

In order to secure my improved mortise gage to the material into which the mortise is to be cut I form a threaded opening 22 in each of the end members 8 and 9 and through each of these threaded openings I pass a set screw 23, which screws enter the material to which the gage is applied. By referring to Fig. 6 it may be noted that the screw 23 is peculiarly constructed and especially designed for use in connection with my improved mortise gage. This screw is provided with an auger like extremity 24 while its shank is provided with threads 25 which are adapted to be received in the threaded opening 22 in the opposite members 8 and 9. Upon the shank of the screw 23 just above the threads 25, I form a shoul-

der 26, which shoulder engages the upper extremity of the sleeve 27 applied to each of the end members 8 and 9. Referring again to the adjustable member 14 it may be noted that its forward edge is turned inwardly at right angles as shown at 28 in Fig. 2 of the drawing. The inwardly turned member 28 extends inwardly just far enough to equal the thickness of the end member 9, whereby when the mortise gage is in position the member 28 tightly engages the material to which the mortise gage is applied.

From the foregoing description, the use and operation of my improved mortise gage may be readily understood. The gage is first applied to the material into which the mortise is to be cut, surrounding the area which the mortise is to cover, then screws 23 are adjusted to cause their extremities 24 to enter the material their threaded portions 25 being constantly in engagement with the threads of openings 22. The adjustment of the screws may be continued until the collars or shoulders 26 engage the sleeves 27. Now since the gage has been set and firmly secured to the material the member 14 is adjusted to regulate the length of the mortise. After this member has been adjusted the nut 20 is tightened, thus preventing movement of the member 14. The material inclosed by the gage may now be easily cut out with the employment of chisel or similar instrument. The member 7 of the frame serving as a rest or guide for the chisel, by virtue of the fact that this member 7 is offset as heretofore described. The mortise will be cut so that its side adjacent the member 7 will not be inclosed by any of the material, in other words the mortise is cut down to a plane corresponding with the plane of the offset member 7 and one side of the mortise will be open through the edge of the material, whereby a wing of a hinge may be readily inserted into the mortise so that its upper surface will lie flush in the surface of the material in which the mortise is cut.

An important feature of my invention resides in the fact that the auger point 24 of the screw 23 may be drawn entirely within the sleeve 27 while the threaded portion 23 of the screw still engages the threads of the sleeve 27. By virtue of this arrangement the screws 23 are always retained in position in the frame ready to enter the wood to which the gage is applied and their auger points shielded by the sleeves 27 when the said points are drawn into the said sleeves.

Having thus described my invention, what I claim is,

1. A mortise gage comprising parallel side members, and end members connecting the said side members, the end members being bent at right angles to the side members and adapted to overlap the edge of the material

to be gaged, the bent portions of the said end members support one of the side members in a position offset from the plane of the other side member, the offset member being adapted to engage the edge of the material to be gaged, said offset member extending at right angles to the bent portions of the said end members, while the other side member is adapted to engage the side of the material to be gaged, substantially as described.

2. A mortise gage comprising a rectangular frame, one side of the said frame being relatively wider than the opposite side and offset at right angles to the remainder of the frame, an adjustable member mounted at one end of the frame for gaging the length of the mortise to be cut, the said member consisting of two parts forming right angles with each other, one of the said parts being provided with a longitudinal slot, a pin mounted on one end of the frame and passing through said slot, and means applied to the pin and adapted to engage the said slotted member for securing the adjustable member in position.

3. A mortise gage comprising a frame, one side of the said frame being offset from the remainder of the frame, an adjustable member mounted at one end of the frame and longitudinally adjustable in the space inclosed by said frame for gaging the length of the mortise to be cut, the forward edge of the said adjustable member bridging the space between the two side members of the frame and having its forward edge turned inwardly at right angles to engage the material to be gaged, means applied to the frame and engaging the said adjustable member for securing the latter in position, and means for securing the frame in position upon the material to be gaged, substantially as described.

4. A mortise gage comprising a rectangular frame, one side of the said frame being offset at right angles to the remainder, the said offset side being relatively wider than the opposite side of the frame, an adjustable member mounted at one end of the frame for gaging the length of the mortise to be cut, the said member comprising two parts forming angles with each other, one side of the said parts being provided with a longitudinal slot, the end of the frame corresponding with that to which the adjustable member is applied being provided with a threaded pin passing through the said slot, a nut applied to the said pin and adjustable to engage the slotted member for holding the adjustable member in the desired position of adjustment and means for securing the frame in position upon the material into which the mortise is to be cut.

5. A mortise gage comprising a frame, the said frame having openings therein, interiorly threaded sleeves applied to the frame

and registering with the said openings and set screws passing through the said sleeves and the openings in the frame, the said set screws each being provided with an auger shaped extremity and a threaded shank engaging the threads of the sleeves, the threaded shank of the set screws being of sufficient length to permit the auger point to be drawn entirely within the sleeves while the threads of the shank are still in engagement with the threads of the sleeves.

6. A device of the class described comprising a frame, one side of the said frame being offset from the remainder of the frame, an adjustable member mounted at one end of the frame for gaging the length

of the mortise to be cut, the said member consisting of two parts forming angles with each other, one of the said parts being connected with one end of the frame, while the other part bridges the space between the two side members, and means for preventing movement of the adjustable member after the latter has been adjusted to the desired position, substantially as described.

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

JOHN W. CARLSON.

Witnesses:

OLGA BERLEY,
PHILIP RYAN.

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