W. J. CANNADY.

CLAMPING DEVICE.

APPLICATION FILED MAY 7, 1910.

975,934.

Patented Nov. 15, 1910.

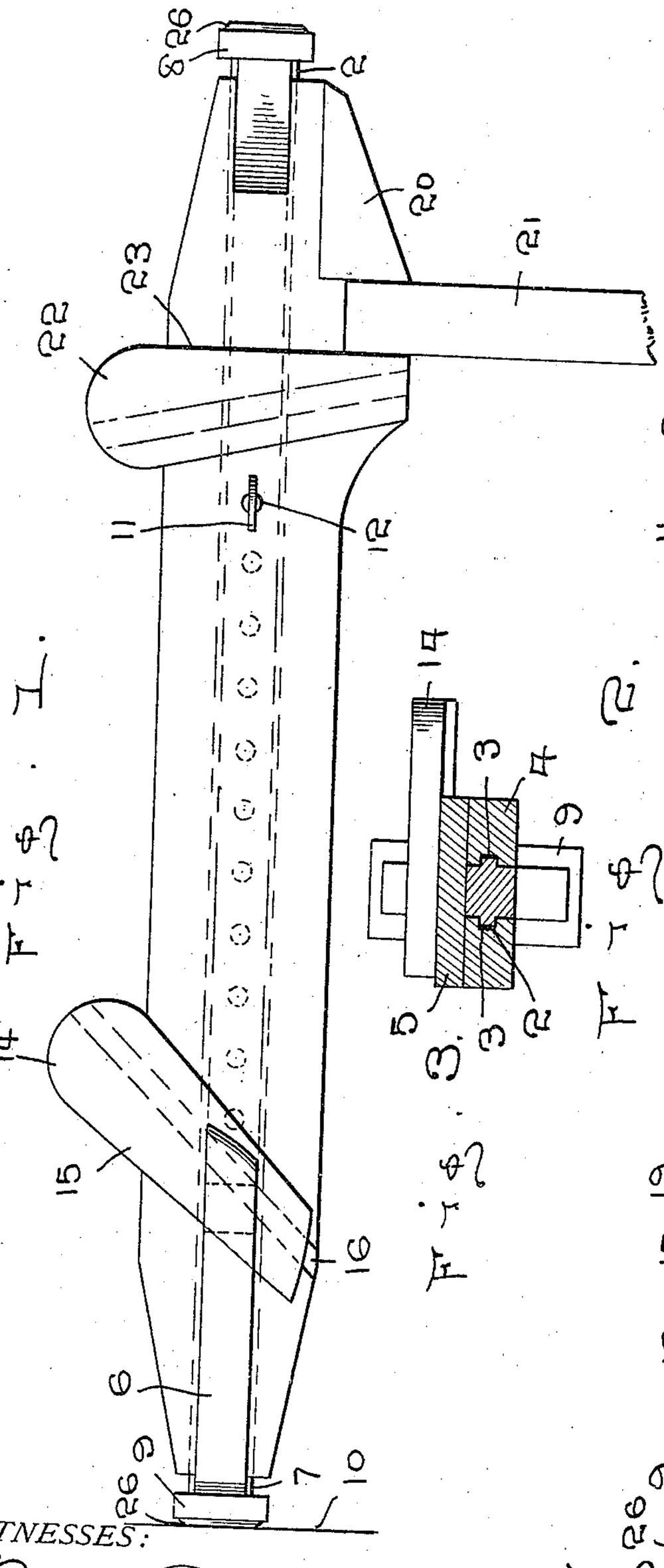
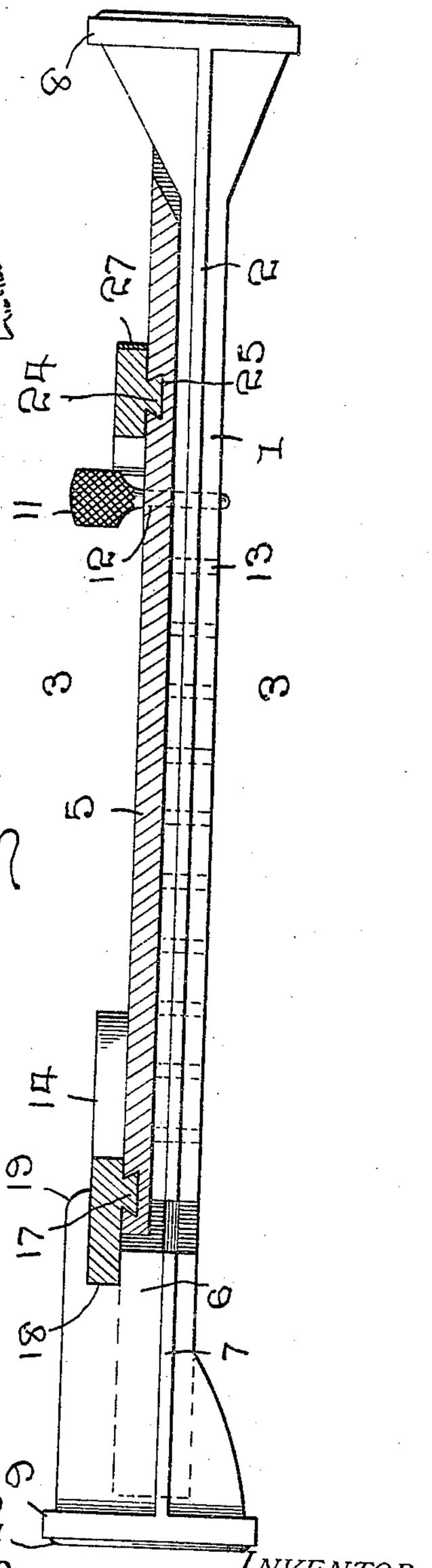


Fig. 1.

Fig. 2.

Fig. 3.



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CLAMPING DEVICE.

975,934. Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed May 7, 1910. Serial No. 560,001.

To all whom it may concern:

Be it known that I, WILLIAM J. CANNADY, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Clamping Devices; and I do hereby 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.

My invention relates to clamping devices and more particularly to that class adapted to be used for clamping and holding doors while being fitted for the door jamb and my object is to provide a clamping device, which may be quickly applied in position between the door jambs.

A further object is to provide means for lengthening or shortening the clamping device, whereby it may be applied to use in jambs of various widths.

A further object is to provide means for holding the clamping parts in their adjusted positions.

A further object is to provide means for causing the ends of the clamping device to firmly engaging the sides of the door jamb, and, a further object is to provide means for engaging the edge of the door to hold the same in an upright and firm position during the fitting operation.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a top plan view of the clamping device in its operative position. Fig. 2 is a longitudinal sectional view thereof, and, Fig. 3 is a transverse sectional view as seen on line 3—3 Fig. 2.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a bar, which is provided on opposite sides with tongues 2, said tongues being adapted to enter grooves 3 of a frame 4.

The frame 4 is formed of two parallel sections, which are spaced apart to receive the bar 1 and the grooves 3 are formed in the meeting edges of said sections, while the sections are held in proper alinement with each other by placing a plate 5 over the upper faces of the two sections, said plate being secured to the sections in any suitable manner.

The bar 1 is of less length than the frame 4, thereby leaving a space at the opposite end of the frame to receive an auxiliary bar 6, which is independently movable of the bar 1, said auxiliary bar being likewise provided with tongues 7, which enter the grooves 3 in the frame pieces. The outer ends of the bar 1 and auxiliary bar 6 are provided with heads 8 and 9 respectively, which heads are adapted to be forced into engagement with the door jamb or frame 10, the outward pressure on said heads being sufficient to hold the clamping device firmly in position.

As the door jambs vary in width, the bar 1 is rendered longitudinally adjustable with the frame 4 to adapt the clamp for use in connection with any width of jamb by extending a key 11 through an opening 12 in the plate 5 and through any one of a plurality of openings 13 in the bar 1, said openings in the bar being adapted to be brought into registration with the opening in the plate.

The auxiliary bar 6 is adjusted longitudinally by means of a wedge 14, whereby a minute adjustment of the auxiliary bar may be had, the edge 15 of the key being tapered, whereby when the key is forced inwardly, the auxiliary bar will be gradually moved outwardly.

The upper face of the plate 5 is provided with a dove tail channel 16, with which cooperates a similarly constructed tongue 17 on the wedge 14, the channel 16 being preferably disposed at an angle to the axial trend of the frame, so that the wedge 14 will be gradually moved toward the auxiliary bar 6 as the wedge is moved inwardly, while the dove tail channel and tongue will normally hold the wedge in position on the plate.

The tapered edge of the wedge 14 engages a shoulder 18 on the auxiliary bar 6, said shoulder being likewise tapered with respect to the longitudinal trend of the auxiliary bar to fit the tapered edge of the

wedge and to more thoroughly reinforce the wedge, an extension 19 is provided above the shoulder 18, which extension projects over and engages the upper face of the wedge.

The end of the frame 4 opposite the auxiliary bar 6 is provided with a jaw 20, which jaw is fixed to the plate 5 and is adapted to engage one face of a door 21, while the opposite face of the door is engaged by a wedge 22, the edge 23 of the wedge engaging the door being preferably straight and in alinement with the face of the door and the jaw against which the door is resting, whereby when the wedge is moved inwardly, the door will be securely clamped between the wedge and jaw. The lower face of the wedge 22 is also provided with a dove tail tongue 24, which enters a dove tail groove 25 in the plate 5 and in order to cause the wedge 22 to travel toward the door when it is moved inwardly, the tongue and groove are placed at an angle to the axial trend of the frame and also at an angle to the straight edge of the wedge.

In order to prevent the clamp from marring the faces of the door jamb, any suitable cushioning material, such as leather or the like 26, may be attached to the faces of the heads 8 and 9 and the face of the wedge 22 engaging the door may also be provided with a strip of leather 27 and if desired, the engaging face of the jaw may likewise be provided with cushioning material and by using leather or similar substance, a better gripping surface is provided for the parts of the clamp.

In applying the device to use, the key 11 is removed and the bar 1 extended outwardly until the heads 8 and 9 practically engage the faces of the door jamb, when the key is again introduced through the opening 12 and the opening 13 registering therewith, when the heads are firmly forced into engagement with the jamb by moving the wedge 14 inwardly, which may be done by delivering one or more blows to the outer end thereof. The door is then measured to fit the jamb and one edge thereof placed against the jaw 20, when the wedge 22 is moved inwardly to force the door against the jaw, thus holding the door against movement, while the same is being trimmed or fitted, or in fact, when any work is being done upon the door, such as placing hinges and locks thereon.

All the parts of this device are preferably constructed of wood, so that if any parts thereof become worn or broken, the carpenter can readily repair the same and while the parts are constructed strong and durable, the device will be light in weight, whereby it may be readily handled when being applied to use. It will further be seen that by providing the adjusting mechanism, as shown, the clamping device can be quickly secured in position in the door frame or removed therefrom and by operating the auxiliary bar, as shown, a minute and positive engagement of the heads with the jamb or frame may be had. It will further be seen that by using a wedge for engaging the door with the clamping member, a very rigid engagement of the door with the clamping member will result and without injury to the door.

What I claim is:—

1. In a clamping device, the combination with a frame having grooves therein, of a bar slidably mounted in said frame and having tongues thereon adapted to enter said grooves, means to adjust said bar in the frame, an auxiliary bar entering the opposite end of said frame and having tongues thereon adapted to engage said grooves and a wedge slidably mounted on said frame adapted to engage and move said auxiliary bar longitudinally of the frame to engage the ends of said bars with an object.

2. In a clamping device, the combination with a frame, comprising sections spaced apart and a plate connecting said sections, the meeting faces of said sections having grooves, of a bar slidably mounted in the space between the sections, said bar having tongues adapted to enter said grooves, a head at one end of said bar, an auxiliary bar at the opposite end of the frame having tongues thereon adapted to engage said grooves, a head at the outer end of said auxiliary bar, means to adjust the first mentioned bar longitudinally of the frame, means movably mounted upon the plate of said frame adapted to move the auxiliary bar longitudinally and means to engage the edge of an object and hold the same in a fixed position.

3. In a clamping device, the combination with a frame, of a bar adjustably and slidably mounted in one end of said frame, an auxiliary bar slidably mounted in the opposite end of said frame, each of said bars having a head at its outer end and a wedge slidably mounted on said frame and adapted to engage the auxiliary bar and move said heads into engagement with an object.

4. In a clamping device, the combination with a frame, bars slidably mounted in said frame and means to clamp said bars against an object, of a jaw integral with said frame, a wedge slidably mounted on said frame and adapted to move across the frame at an angle to the trend of the frame, whereby an object will be clamped between the jaw and wedge.

5. In a clamping device, the combination with a frame, comprising spaced apart sec-

tions and connecting means between said sections; of bars slidably mounted between said sections, means to adjust said bars longitudinally, a jaw at one end of said frame, and a wedge slidably mounted on said frame adjacent said jaw and adapted to coöperate therewith, for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM J. CANNADY.

Witnesses:

HARVEY S. DURAND,

ALDEN C. BAYLEY.