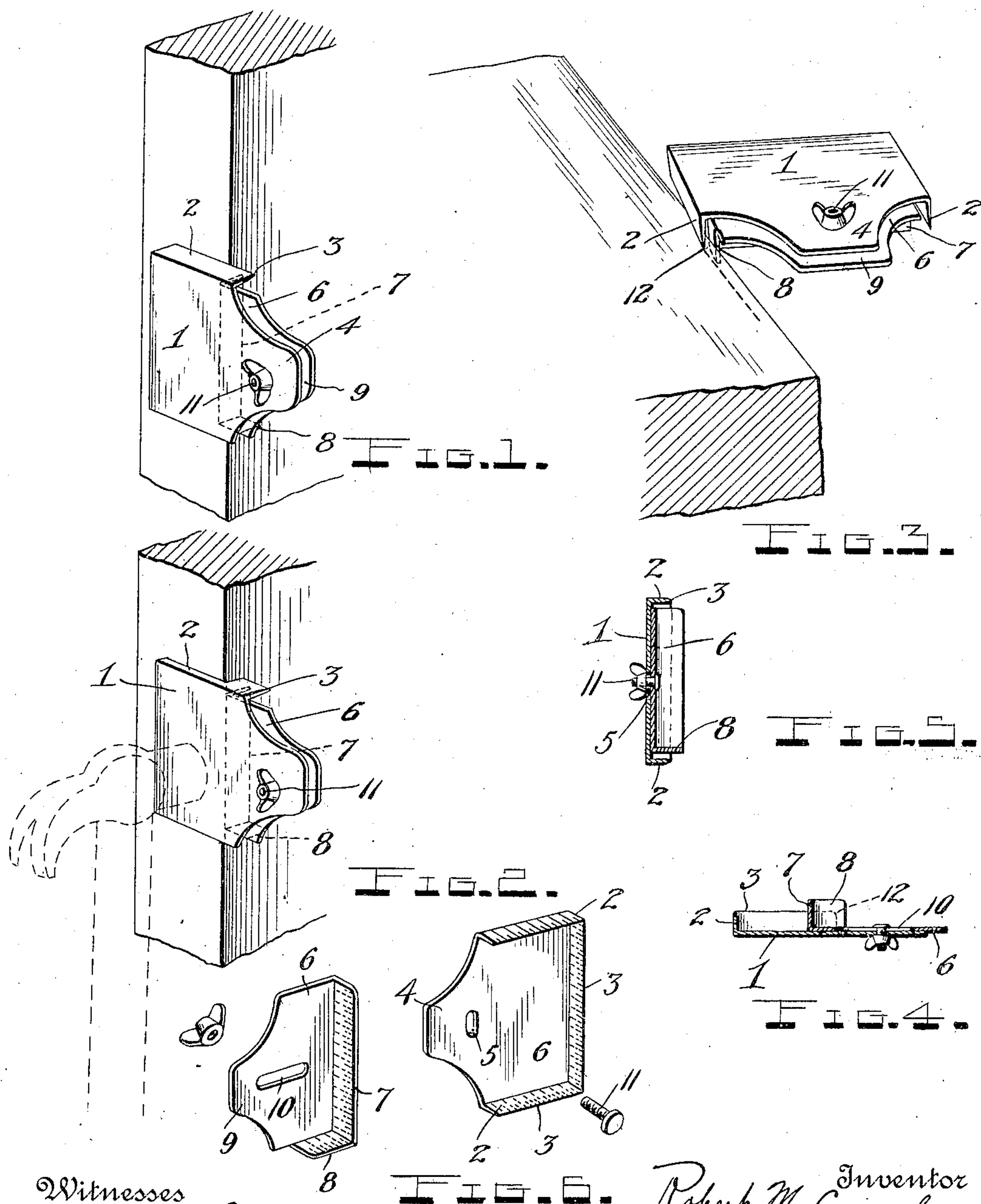



No. 836,737.

PATENTED NOV. 27, 1906.

R. M. CONNELLY.
HINGE SETTING TOOL.
APPLICATION FILED NOV. 25, 1905.



Witnesses 8
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UNITED STATES PATENT OFFICE.

ROBERT M. CONNELLY, OF SANTA ANA, CALIFORNIA.

HINGE-SETTING TOOL.

No. 836,737.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed November 25, 1905. Serial No. 289,055.

To all whom it may concern:

Be it known that I, ROBERT M. CONNELLY, a citizen of the United States, residing at Santa Ana, in the county of Orange and State of California, have invented certain new and useful Improvements in Hinge-Setting Tools, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to tools for gaging and cutting spaces for setting hinges on doors and door-jambs, and has for one of its objects the providing of a device of the character described that shall be simple and inexpensive in construction, durable, and effective in operation, and whereby the depth necessary to cut in order to provide a space for setting the hinge-butt flush with the edge of the door and jamb can be easily and readily determined, the wood cut down to such depth on three sides without the aid of any further tool other than an ordinary carpenter's hammer, after which the block can be chipped out with a chisel to have a space of the exact size and depth of the butt.

Other objects and advantages of my invention, as well as the structural features by means of which these objects are attained, will be made clear by an examination of the specification, taken in connection with the accompanying drawings, in which the same reference-numerals indicate corresponding portions throughout, and in which—

Figure 1 is a perspective view of a portion of the rear edge of a door, showing my device arranged thereon ready to be struck with a hammer or like tool to cut the three sides of the space. Fig. 2 is a perspective view of a portion of the edge of a door, showing a hammer in dotted outlines and the position of the cutting-tool and gage after the cutting-tool has been driven the necessary depth to set the hinge-butt. Fig. 3 is a perspective view of a portion of a door, illustrating the manner in which the tool is placed thereon to mark the proper depth to cut to make an opening the exact depth of the hinge-butt. Fig. 4 is a longitudinal section through the complete tool. Fig. 5 is a transverse section; and Fig. 6 shows the cutting-tool and gage in detail, perspective, and separated. This figure also shows in detail the thumb-screw whereby the tools are connected and adjusted.

1 designates a plate comprised, preferably, of steel for purposes of durability and strength

and having a flange or cutting edge 2 formed integral with three of its sides. This flange has a sharp outer edge 3, so that it can be easily and readily driven into the wood, the plate and its flange comprising the cutting and marking tool adapted to be used in cutting out a space in the door or jamb of the exact dimensions as the hinge-butt. The cutting-tool may be of any desired dimensions, but preferably three and one-half inches one way, as that is the length of the hinge-butt ordinarily in use. A portion of said plate 1 is cut away to form a lateral tongue or projection 4 and is also provided with an oblong slot 5, the purpose of which will hereinafter more fully appear. The gage-tool comprises a plate 6, also preferably constructed of steel and having one edge turned up to form a short flange or spur 8, extending at right angles with said flange 7. A portion of this plate is cut away to form a lateral projection 9, and it is also provided with an oblong slot 10. The object of the oblong slots 5 and 10 is to afford means for adjustably connecting the gage-tool and the combined cutting and marking tool through the medium of the set or thumb screw 11.

It will be observed that when the gage-tool is slidably mounted within the cutting-tool, this being its normal and operative position, as shown in Figs. 4 and 5, the slots 5 and 10 are arranged transversely of each other to admit of a limited lateral movement and a considerable longitudinal movement of the tools with respect to each other. This limited lateral movement is possible, owing to the fact that the gage-tool is of slightly less width than the cutting-tool, as shown in Fig. 5, and the purpose of this lateral movement is to enable the device to mark doors, jambs, and the like for the reception of hinge-butts of different thicknesses, as presently explained. The said longitudinal movement of the tools is only limited by the length of the slot 10, and its purpose is to enable the stop-flange 7 on the gage-tool 6 to be set at different distances from the cross or connecting portion of the cutting-flange 2 on the cutting-tool according to the width of the hinge-butt to be set.

The first operation is to determine and mark the depth to which cutting-flange 2 should be driven. This is accomplished by setting the spur 8 a distance from one of the short end portions of the cutting-flange 2, a distance corresponding to the thickness of

the hinge-butt to be set, and then placing the spur 8 against the edge of the door or jamb to be marked, so that the sharp corner or end 12 of said end portion of the flange 2 will mark the side of the door or jamb, as shown in Fig. 3. When in this position and the device is pushed along the edge of the door or jamb, the spur 8, operating as a guide or stop to guide the tool along the edge of the door, and the point 12 being sharp and engaging the side of the door or jamb, operates to leave a linear mark along the side of the door or jamb and paralleled with the edge thereof. This line serves as a guide to show how deep the space shall be cut to receive the hinge-butt. The device is then removed from the door or jamb and arranged thereon, as shown in Fig. 1, for the purpose of cutting a space of sufficient length and width to receive the hinge-butt. When the device is thus used, the flange 7 acts as a stop to limit the extent the cutting-tool shall project over the edge of the door or jamb from the side thereof, said flange 7 being adapted to engage the side of the door or jamb, as shown. The cutting-tool is then tapped with a hammer and driven down to the mark heretofore mentioned, whereupon it is withdrawn and the piece chipped out with an ordinary carpenter's chisel. It will be observed that the flange 7 on the plate or tool 6 operates as a stop or guide to determine the width of the cut or recess to be made in the door or jamb and that the spur or flange 8 on said plate or tool 6 operates as a stop or guide to determine the depth of said cut or recess. To cut a space longer than the tool, the cutting-tool is moved along the edge of the door the necessary distance and struck again to cut out another piece. For convenience and in order to facilitate in determining the exact dimensions of the spaces to be cut to correspond with hinges of various sizes, I provide a graduated scale on the outer edge of the flange 2 of the cutting-tool and also on the flange 7 and spur 8 of the gage-tool, as shown in Fig. 6 of the drawings.

I claim—

1. In a device of the character described, a plate having a sharpened flange arranged on three of its sides and at right angles therewith, a second plate having a flange arranged at right angles therewith and a guide-spur arranged at right angles with the plate and also with said flange, and means whereby the two plates are removably and adjustably connected with each other.

2. In a device of the character described, a cutting-tool comprising a plate having a sharpened flange arranged at right angles therewith, a gaging-tool having a flange arranged at right angles therewith and a guide-spur arranged at right angles with the plate and said flange, and a set or thumb screw passing through slots arranged in the tools

transversely of each other whereby said tools are removably and adjustably connected.

3. In a device of the character described, a plate having three of its sides surrounded by an upturned cutting edge or flange formed integral with the plate and arranged at right angles therewith, said plate also having parts cut away to form a lateral projection or tongue, a second plate having one of its edges upturned to form a flange integral therewith and an upturned guide-spur formed integral with another edge of the plate and arranged at right angles with the plate and with the flange, said plate having parts cut away to form a lateral tongue or projection and being arranged to rest within the space surrounded by the flange on the first-mentioned plate, and means for removably and adjustably connecting said plates.

4. In a device of the character described, a plate having a cutting edge arranged on three of its sides and at right angles therewith, a second plate having a flange arranged at right angles therewith and a guide-spur arranged at right angles with the plate and also with the flange, and a set or thumbscrew whereby they are removably and adjustably connected with each other.

5. In a device of the character described, a plate having a graduated cutting edge formed integral with three of its sides and upturned at right angles therewith, a second plate having a graduated flange formed integral with one side thereof and upturned at right angles therewith and a graduated guide-spur formed integral with the plate and upturned at right angles therewith and also disposed at right angles with the flange, and means whereby the two plates are removably and adjustably connected with each other.

6. In a device of the character described, a combined cutting and marking tool having cutting edges arranged at right angles to each other, one of said edges having a free corner to serve as a marking edge, a gage-tool having a stop-flange to coact with one of the said cutting edges and a guide-spur to coact with the free corner of the other of said cutting edges when used for marking, and means for adjustably connecting said tools.

7. In a device of the character described, a combined cutting and marking tool comprising a plate having three of its sides provided with upturned integral flanges formed with cutting edges, said flanges being arranged at right angles to said plate and to each other, a gaging-tool adapted to fit in said cutting-tool and comprising a plate having one of its edges upturned to form an integral stop-flange to coact with one of said cutting-flanges, and an upturned guide-spur formed integral with another edge of said plate and arranged at right angles with the latter and with said stop-flange, said guide-spur being adapted to

coact with one of said cutting-flanges, and means for adjustably connecting said tools, substantially as described and for the purpose set forth.

5 8. In a device of the character described, a combined cutting and marking tool comprising a plate having three of its sides provided with upturned integral flanges formed with cutting edges, said flanges being arranged at
10 right angles to said plate and to each other, a gaging-tool adapted to fit in said cutting-tool and comprising a plate having one of its edges upturned to form an integral stop-flange to coact with one of said cutting-
15 flanges, and an upturned guide-spur formed

integral with another edge of said plate and arranged at right angles with the latter and with said stop-flange, said guide-spur being adapted to coact with one of said cutting-flanges, and a set-screw passed through slots 20 arranged in said tools transversely of each other whereby said tools are removably and adjustably connected, substantially as described and for the purpose set forth.

In testimony whereof I hereunto affix my 25 signature in presence of two witnesses.

ROBERT M. CONNELLY.

Witnesses:

HENRY FRANZEN, Jr.,

CHAS. R. DAVIS.