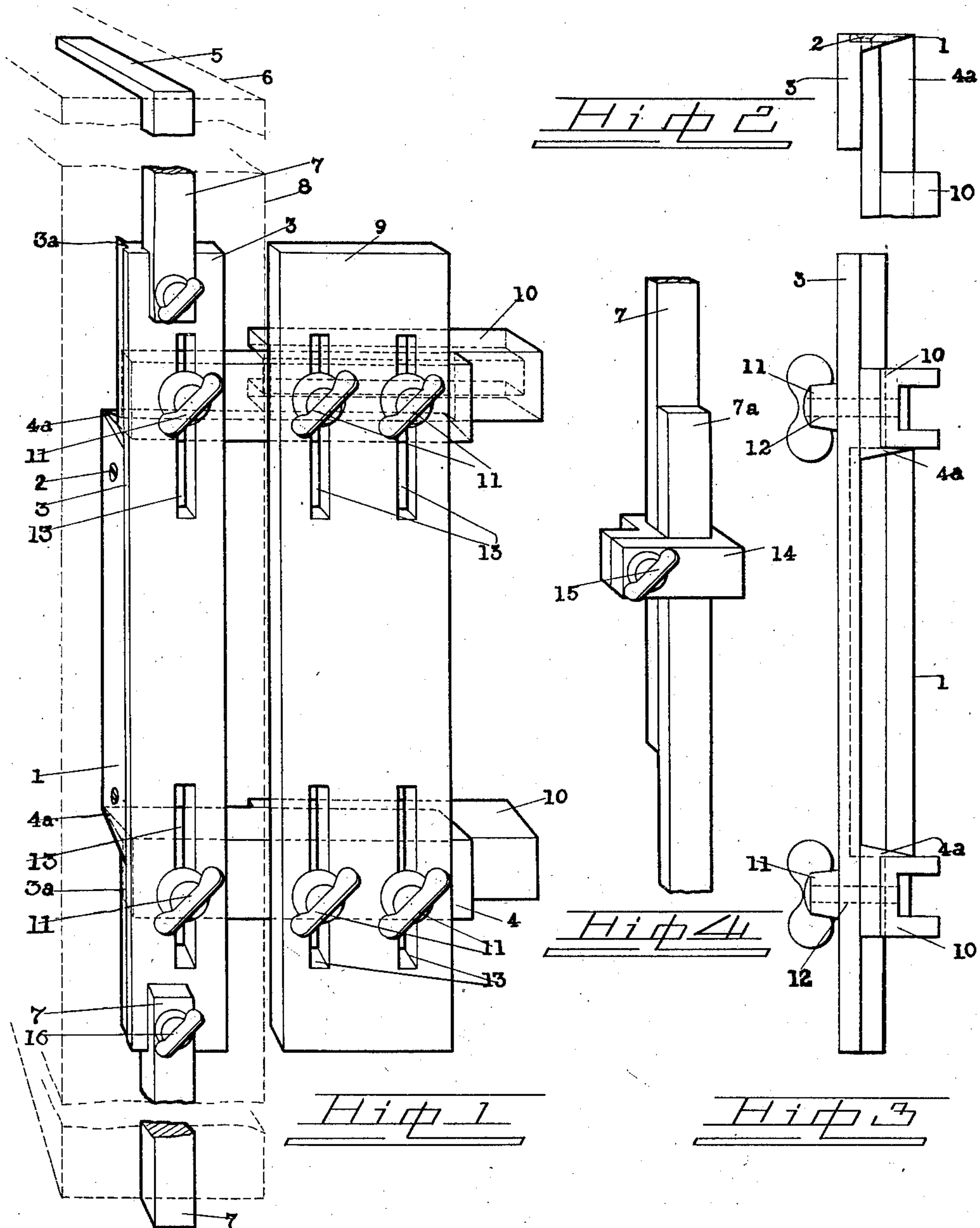


P. E. GREEN.
GAIN CUTTER.
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997,252.

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WITNESSES:

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GAIN-CUTTER.

997,252.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, PORTER E. GREEN, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Gain-Cutters, of which the following is a specification.

This invention relates to improvements in gain cutters and has for its object to provide a device of the character described, which is effective for the purpose of cutting gains in doors and casings, in which to set hinges, and for similar purposes. I accomplish this object by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is an elevation of a cutter embodying the principle of my invention. Fig. 2 is a top view of bar 3, showing the parts connected therewith. Fig. 3 is an edge view of Fig. 1. Fig. 4 shows a coupling by means of which two cutters may be joined and held at any desired distance apart.

Similar characters of reference indicate similar parts in each of the views.

In the drawing 9 is a plate, made of metal, and having the longitudinal slots 13, at each end. Across this plate at what may be termed the front side, is arranged the cutter bars 4 one at each end thereof, beneath the said slots. These cutter bars are held in place, each by one end upon an end of the plate, by means of the bolts 12, which may be secured at any position along the slots 13. The said cutters each consists of a bar 4 having formed at the edge thereof which faces the other bar, a cutting edge or blade 4^a, at right angles to the bar. The other end of each cutter is secured in a similar manner to the bar 3, in which also are formed at each end, similar slots 13, through which the thumb screws 12 pass, by which the members are held together. At the outer edge of the bar 3 is formed a shoulder 3^a, against which is secured the cutting blade 1, by means of the screws 2. The ends of cutter bars 4, with the blades 4^a, are adapted to meet the respective ends of the blade 1, at which point they are firmly secured by means of bolts 12 and the wing nuts 11. The blade 1 is made removable, so that a different length of cutter may be employed to suit the varying length of hinges in use, the slots 13 permitting an adjustment of the

cross-wise cutters to correspond therewith. To the upper end of the bar 3 is adjustably secured a gage 7, having the arm 5 formed at right angles thereto. In determining the position on the door, in which to set the hinge, the arm 5 will first be placed on the top 6, of the door, to provide the necessary space between that and the jamb; the gage will then be secured to the bar 3 at the desired distance therefrom, to cut the gain in the edge 8, of the door. To the lower end of the gain cutter is secured a similar gage, by means of thumb screws 16, to which is coupled the bar 7^a, by means of clamp 14, held by the screw 15, leading from another gain cutter, which is adjusted by means of said clamp 14 to the position of the next hinge. It is obvious that other cutters may be coupled in series in this manner, if the number of hinges to be placed upon the door should require more than two.

In operation, the transverse cutters will be adjusted in their slots to suit the length of the hinge. The gages 10, which also are secured upon the same bolts 12, will be moved toward the cutter 1 until the space between them indicates the width of the hinges. There they will be secured, in the manner above stated. The gages 7 having been adjusted, the gain cutter, when placed upon the door, will indicate the position of the hinge, and by a few blows from a hammer on the bar 3, the gain will be quickly and neatly cut, in the exact position desired and of a depth to suit the hinge.

Having now described my invention sufficiently to enable those skilled in the art to which it pertains, to understand the same, what I claim as new and desire to secure by Letters Patent, is—

1. A gain cutter comprising a plate having longitudinal slots formed in each end thereof,—cutting bars secured transversely in said slots,—and another bar secured upon said cutting bars, having secured thereon a cutting blade, the side of which abuts against the ends of said cutting bars.

2. A gain cutter comprising a plate having longitudinal slots formed in each end thereof,—a bar secured transversely in said slots, at each end of the plate, each having a cutting blade formed on the edge adjacent the other bar, at right angles to the plate,—and a bar secured to the other end of the

cross bars, upon which is secured a cutting blade, which abuts against the ends of the cutting blades of the cross bars.

3. A gain cutter comprising a plate having longitudinal slots formed in each end thereof,—a cross-wise bar adjustably secured in said slots at each end of the plate, each having a cutting blade at right angles thereto, formed on the edge adjacent the other bar,—and a bar secured to the other end of the cross bars, upon which is detachably secured a cutting blade the side of which is adapted to bear against the ends of the blades on said cross bars.

4. In a gain cutter, a plate having longitudinal slots formed in each end,—cross bars adjustably secured on the face of the plate, by means of bolts through said slots,—a cutting blade formed on the adjacent edges of said cross bars,—a bar having a longitudinal slot at each end, adjustably secured upon said cross bars and having a cutting blade at its outer edge, the side of

which abuts against the ends of the blades on the cross bars,—and a gage adjustably secured to the opposite end of said bars.

5. In a gain cutter, a plate having longitudinal slots formed in each end,—cross bars adjustably secured on the face of the plate, by means of bolts through said slots,—a cutting blade formed on the adjacent edges of said cross-bars,—a bar having a longitudinal slot at each end, adjustably secured upon said cross-bars and having a cutting blade at its outer edge, the side of which abuts against the ends of the blades of the cross-bars,—a gage adjustably secured to the opposite end of said bars,—and gages secured to the end of the gain cutter to determine the position for the gain.

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

PORTER E. GREEN.

Witnesses:

M. REYNOLDS,

W. D. ORDWAY.

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