

(No Model.)

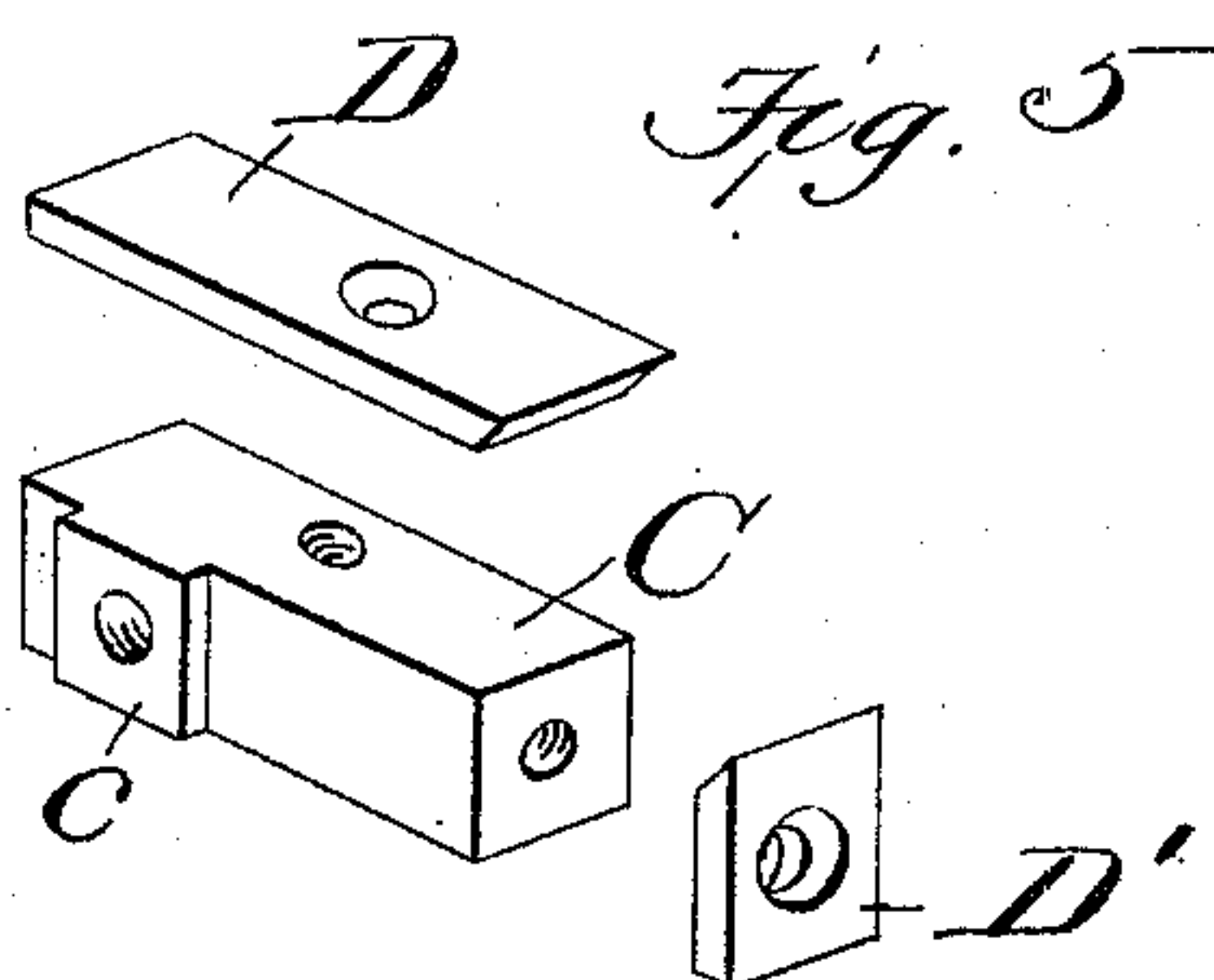
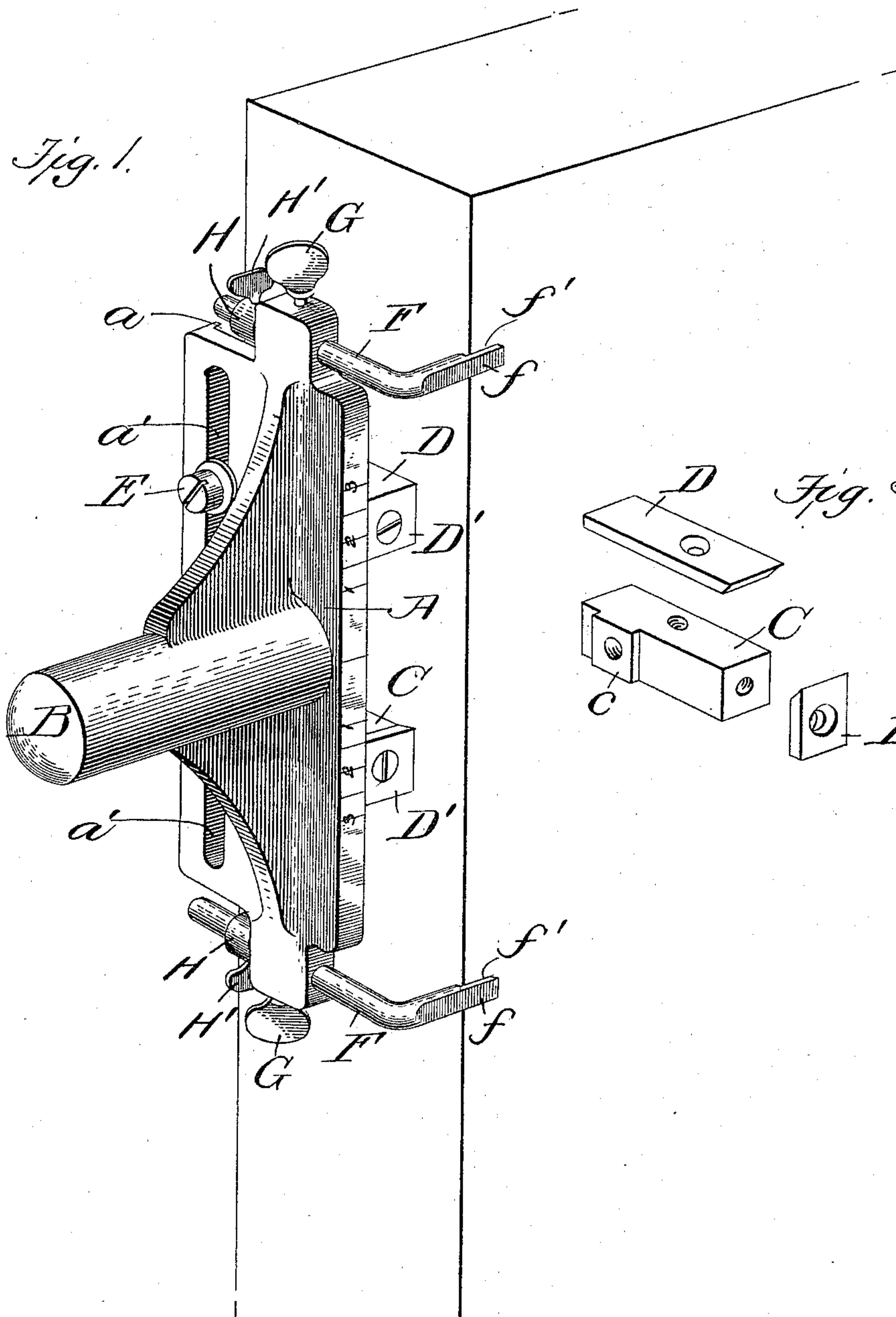
2 Sheets—Sheet 1.

H. J. THIELEN & H. SCHROEDER.
GAGE FOR SETTING HINGES.

No. 537,870.

Patented Apr. 23, 1895.

Fig. 1.



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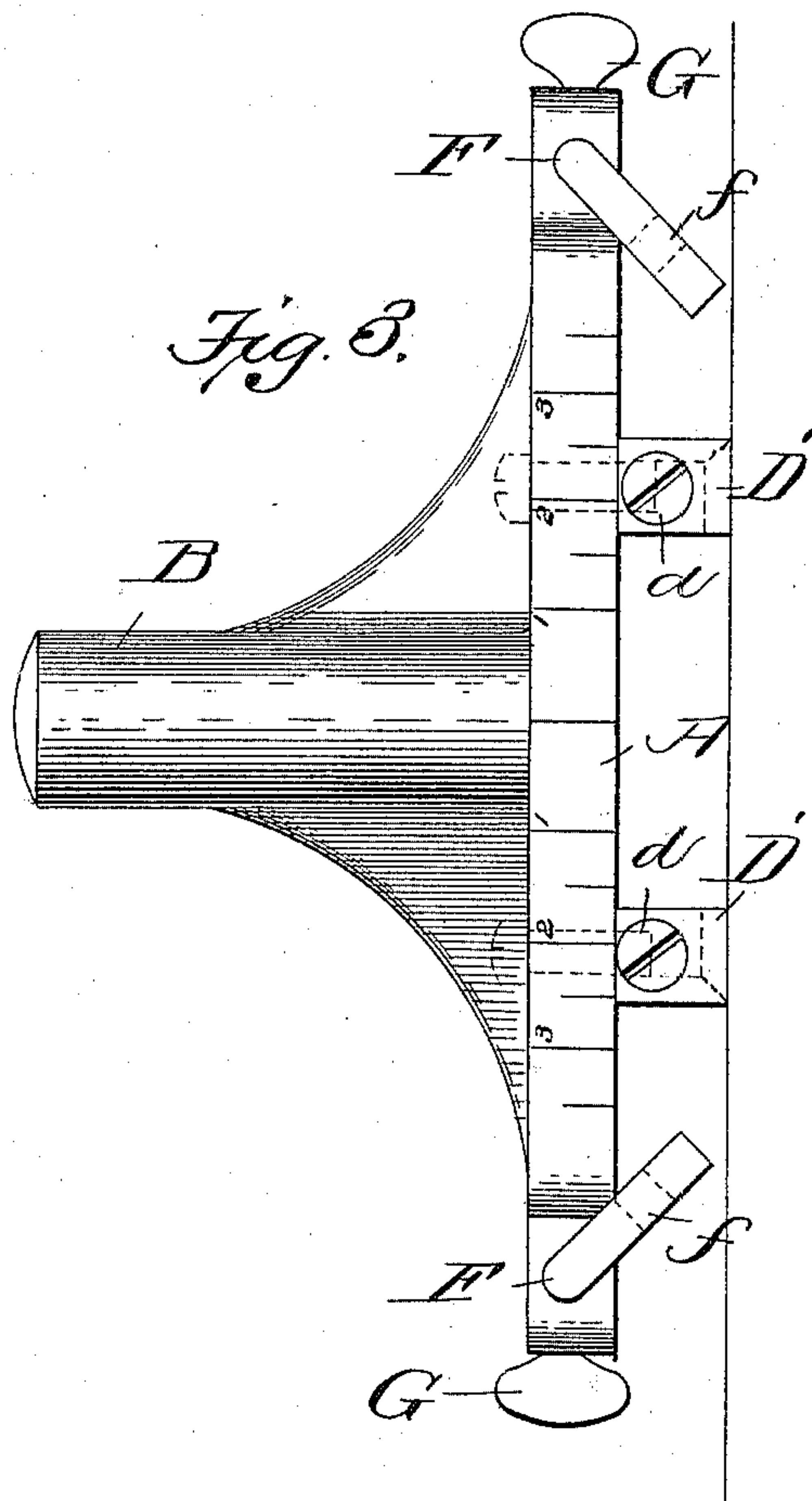
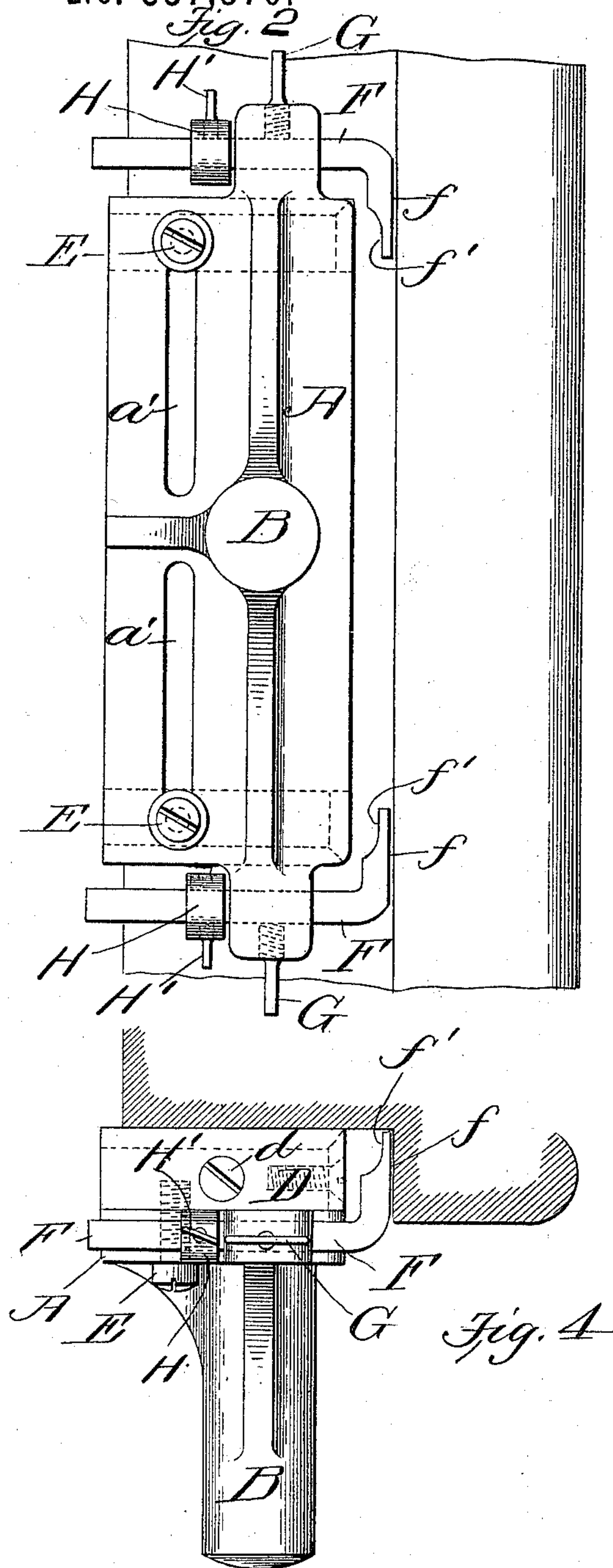
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UNITED STATES PATENT OFFICE.

HUBERT J. THIELEN AND HENRY SCHROEDER, OF ST. LOUIS, ASSIGNOR OF
ONE-THIRD TO GEORGE KRUMSICK, OF WASHINGTON, MISSOURI.

GAGE FOR SETTING HINGES.

SPECIFICATION forming part of Letters Patent No. 537,870, dated April 23, 1895.

Application filed December 4, 1894. Serial No. 530,822. (No model.)

To all whom it may concern:

Be it known that we, HUBERT J. THIELEN and HENRY SCHROEDER, citizens of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Gages for Setting Hinges, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, wherein—
Figure 1 is perspective view of our invention as used in determining the position of a door-hinge. Fig. 2 is a plan view of our invention showing its application in determining the position of the hinge on the door-jamb. Fig. 3 is a side elevation, part of the jamb being removed. Fig. 4 is an end elevational view, and Fig. 5 shows the parts comprising one of the markers disassembled.

Our invention relates to a new and useful improvement in gages adapted for use in determining relative positions of the wings of a door hinge, that is, in finding the outlines of a countersink in the door and door-jamb into which the wings of the hinges may be received.

In marking the lines of the countersink in the door and door-jamb for the registering wings of a hinge, great care has to be taken to get them in their proper position, as a slight difference between the two will cause the door to be swung either too high or too low, necessitating a re-setting and a chipping off of the top or lower edge of the countersink in one of the parts, which results in an unworkmanlike finish. Again, allowance has to be made between the closing edge of the door and the projecting bead of the jamb, and this has to be taken into account in making the measurements.

The object of our present invention is to simplify this work, enabling the workman to mark the lines on the door and door-jamb with one setting of the gage, which in itself compensates for the space between the closing edge of the door and the projecting bead of the jamb, necessitating only the measurement of the proper distance from the top or bottom of the door and jamb.

With this object in view the invention consists in the construction, arrangement, and

combination of the several parts, all as will hereinafter be described and claimed.

In the drawings A indicates a head or stock, from the rear face of which projects a handle or hammer head B, braced by longitudinally and laterally disposed webs. The face of this stock is grooved longitudinally as at *a* which groove receives projecting ribs on the markers.

The markers are preferably formed of a block or body C, from the inner face of which projects the rib *c* into groove *a* by which the marker is held in its relative transversely disposed position. Secured to the outer face and the inner end of body C are chisel blades D and D' respectively, which are preferably held in position by screws *d*. These blades are formed with knife edges, so that when a blow is delivered upon the handle B, they will sever the fibers of the wood, and in that way, not only define the lines of the hinges, but assist in forming the countersink. Stock A is also provided with longitudinally disposed slots *a'* through which pass binding or set screws E, into the markers C. In this manner the markers are adjustable toward and from each other, or longitudinally of the stock. To facilitate this adjustment, and to save constant measurement for the various sized hinges, we prefer to arrange a scale on the edge of stock A, as shown in Fig. 3 to the lines of which the edges of the plates D may be moved. As hinges are generally made to a standard, as No. 3, or No. 4, &c., the number corresponding to the length, in inches, of the wings it will be seen that a great saving in time will result in this convenience, as the cutting edge of the blades D, can easily be moved to the number on the scale corresponding to the number of the hinge, without necessitating careful measurement between the cutting edges of the two chisel blades D during the adjustment.

Revolubly mounted in the ends of the stock are gage-studs F which are bent at right angles as shown, said bent portions being flattened on their outer faces as at *f* and recessed on their inner faces, as at *f'*, to decrease the thickness of the contacting portions. Set screws G are arranged in the stock which set-

screws impinge against these studs and hold them in their adjusted position. Collars H are also provided on these studs, said collars being longitudinally adjustable thereon, and
 5 clamped in their adjusted positions by set-screws H'. These collars limit the endwise movement of the studs and if desired a scale may be provided on the stud whereby, the collars when clamped in position, will deter-
 10 mine the proper distance between the end markers D' and the faces *f* and *f*'.

When the device is used for marking the outlines of the hinge on the door, the markers are set at the proper numbers on the scale,
 15 and the gage studs F adjusted lengthwise (by a scale thereon, if desired), to determine the width of the hinge wing, as defined by the end chisel blades D'. The proper distance is then measured from either end of the door,
 20 and the device applied to the door, as shown in Fig. 1, the top or bottom blade D registering with the line of measurement, and the inner faces *f*' of the gage studs F resting against the edge of the door, as shown. A
 25 blow is then struck on the handle B, which causes the blades D and D' to define the lines of the hinge and partially sever the fibers of the wood. If desired the blades may be driven to their full depth, which will thereby, assist
 30 in forming the countersink.

Without changing the relative positions of the several parts, (assuming that both wings of the hinge are of the same dimensions,) except to revolve the bent ends of the studs F
 35 inwardly, to carry them beyond the line of the edges of the markers, as shown in Figs. 2, 3, and 4, the device is then placed in position on the jamb, the same distance from the top or bottom, as in the instance of the door,
 40 the outer faces *f* of the bent ends of the studs resting against the projecting bead of the jamb. This will throw the end-blades D' nearer the "swinging" edge of the jamb, a distance corresponding to the thickness of the
 45 studs F between the faces *f* and *f*', which compensates for the space required between the closing edge of the door and the projecting bead on the jamb. A blow is then struck, on the handle B, and the chisel-like edges of
 50 the blades D and D' enter the jamb. The bent portions being out of the way, as shown in Fig. 3, it will be seen that they will not interfere with the entrance of the chisel blades into the wood.

55 We are aware that many minor changes in the construction, arrangement, and combination of the several parts of our device, can be made and substituted for those herein shown and described without in the least departing
 60 from the nature and principle of our invention.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

65 1. In a gage for marking the position of hinges on doors and door-jambs, the combination with a suitable stock, of chisel blades

which are adapted to be forced into the wood, adjustably mounted thereon, gage studs which are revolubly mounted in the stock, and
 70 which control said chisel blades, said studs being so constructed and arranged that compensation is made for the space between the closing edge of the door and the projecting bead of the jamb, substantially as described. 75

2. In a gage for setting hinges, the combination with a stock, of chisel blades adjustably mounted thereon, and gage studs which are revolubly mounted in the stock, said studs being formed with right angular projections
 80 on their ends, which may be turned to extend beyond the edges of the chisel blades, or may be folded so as to fall within the line of said edges, substantially as described.

3. In a gage for setting hinges, the combination with a suitable stock, of chisel blades
 85 adjustably mounted thereon, gage studs which are revolubly mounted in the stock, which studs have also an endwise movement, bent portions on the ends of the studs, which
 90 bent portions are adapted to be revolved so as to extend beyond the edges of the chisel blades, and be folded within the edges of said chisel blades, whereby the gage may be used on doors when the bent portions are extended,
 95 and on door jambs, when the bent portions are folded, substantially as described.

4. In a gage for setting hinges, the combination with a suitable stock, of chisel blades
 100 adjustably mounted thereon, gage studs which are revolubly mounted in the stock, bent portions on the ends of the studs, which are reduced at their ends, as at *f* and *f*', which bent portions are adapted to be revolved so
 105 as to extend beyond the edges of the chisel blades, and be folded within the edges of said chisel blades, whereby the gage may be used on doors, when the bent portions are extended and the inner faces *f*' engage the edge of the
 110 door, and on door-jambs when the bent portions are folded, when the faces *f* engage the bead on the jamb, the thickness between the faces *f* and *f*' compensating for the space between the closing edge of the door and the
 115 bead on the door-jamb, substantially as described.

5. In a gage for setting hinges, the combination with a stock, of chisel blades adjustably mounted thereon, gage studs mounted
 120 in the stock, which studs are formed with bent ends, which compensate for the space between the door and door-jamb, set-screws for adjustably retaining the studs and their bent ends, in their rotary adjusted positions, col-
 125 lars on the studs, set screws in the collars for adjusting the collars lengthwise the studs, whereby the bent portions are limited in an outward movement, longitudinally the studs, substantially as described.

6. In a gage for setting hinges, the combination with a stock, which is slotted longitudi-
 130 nally and formed with a groove in its face, of two blocks formed with projections fitting in said groove, set screws which pass through

the slots and hold the blocks in a longitudinally adjusted position, chisel blades D which are secured to the outer sides of the blocks, chisel blades D' which are secured to one end 5 of the blocks, said blades being formed with a miter joint, and gage studs formed with right angular projections adjustably mounted on the stock, substantially as described.

7. In a gage for setting hinges, the combination with a stock, of a handle which projects therefrom, chisel blades which are longitudinally adjustable on said stock, said markers 10 being formed with cutting edges arranged at right angles to each other, and gage studs 15 which are revolubly and transversely adjustable the stock, substantially as described.

8. In a gage for setting hinges, the combination with a stock, of a handle which projects therefrom, chisel blades which are adjustably mounted on the stock, said blades being 20 formed with cutting edges, a scale on the stock for said blades, and gage studs which are revolubly and transversely adjustable the stock, substantially as described.

In testimony whereof we hereunto affix our 25 signatures, in presence of two witnesses, this 30th day of November, 1894.

HUBERT J. THIELEN.
HENRY SCHROEDER.

Witnesses:

F. R. CORNWALL,
HUGH K. WAGNER.