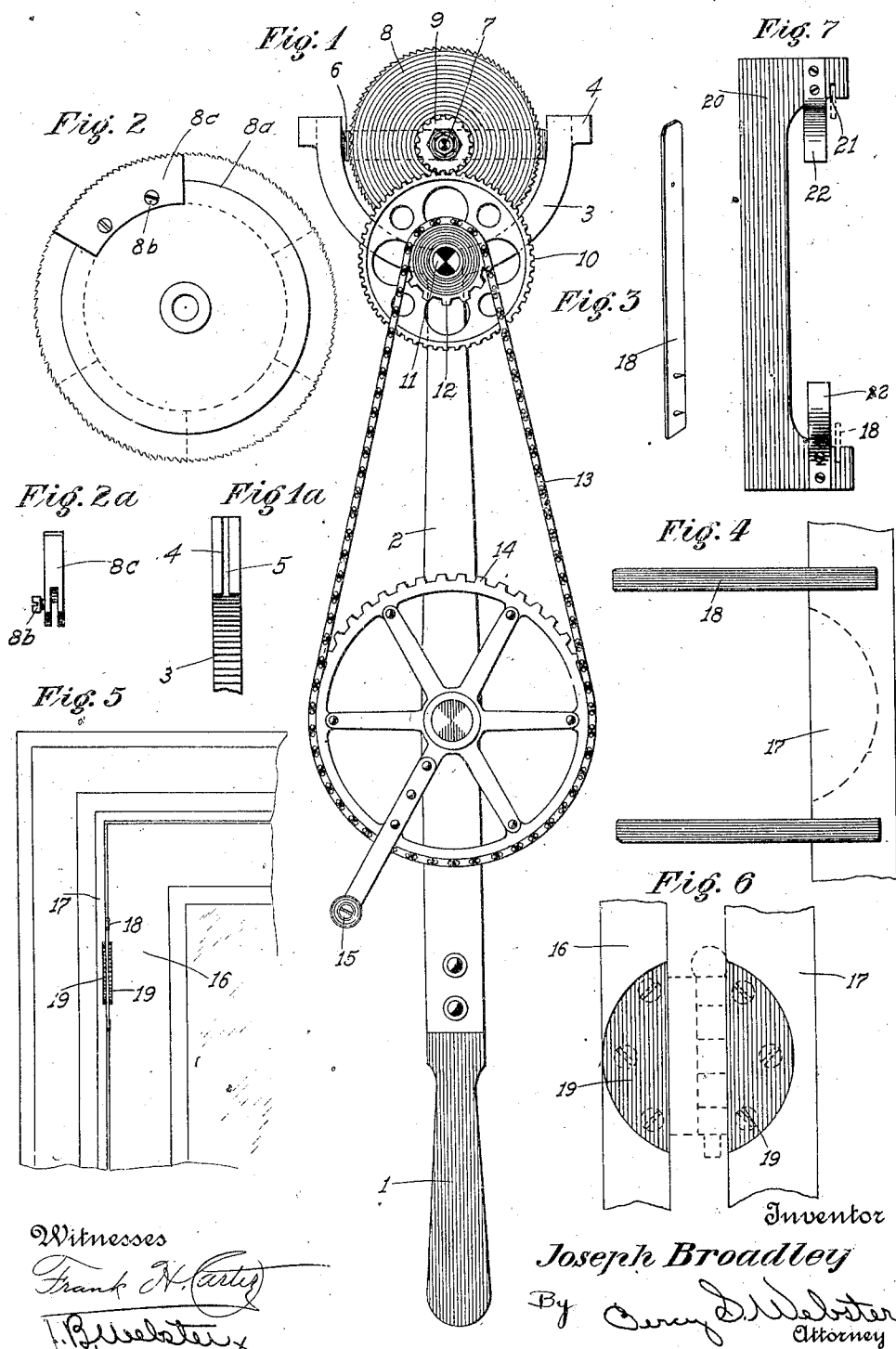


J. BROADLEY.
 HINGE SEAT CUTTER.
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1,012,241.

Patented Dec. 19, 1911.



Witnesses
Frank H. Carter
T. B. Webster

Inventor
Joseph Broadley
 By *Curry D. Webster*
 Attorney

UNITED STATES PATENT OFFICE.

JOSEPH BROADLEY, OF FAIR OAKS, CALIFORNIA.

HINGE-SEAT CUTTER.

1,012,241.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH BROADLEY, a citizen of the United States, residing at Fair Oaks, in the county of Sacramento, State of California, have invented certain new and useful Improvements in Hinge-Seat Cutters; and I do declare the following to be a full, clear, and exact description of the same, 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 drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements for making sockets in doors and door jambs to receive butt hinges the object of the invention being to produce a machine which will cut the socket in the door and the corresponding socket in the door jamb at one operation and in such a direct and exact manner as to render the same absolutely perfect which receives the hinge in an exact and well fitted manner.

A further object is to produce a machine which will perform this operation in a much less time than the hand method now employed.

A still further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects, I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of the complete machine. Fig. 1^a is a fragmentary portion of said machine showing a slotted guide member. Fig. 2 is a side elevation of a cutter for the machine. Fig. 2^a is a fragmentary portion of the same. Fig. 3 is a perspective view of a guide. Fig. 4 is a side elevation of a guide means. Fig. 5 is a front elevation of a fragmentary portion of a door and door jamb showing the socket as made by my improved machine. Fig. 6 is an inside view of a door and door jamb showing said sockets. Fig. 7 is a side elevation of a supporting bar to be used in connection with my improved machine if desired.

Referring now more particularly to the characters of reference on the drawings, I first provide a handle member 1 having a projecting bar 2 having a bifurcated member 3 in its outer end, such bifurcated member having projecting lugs 4 having slots 5.

On the bifurcated member 3 is a cross bar 6 in which is journaled a shaft 7 carrying a cutter or circular saw 8 connected with which is a gear wheel 9 with which a larger gear wheel 10 intermeshes, such gear wheel 10 being secured on a shaft 11 carrying a sprocket wheel 12 connected by a chain 13 with a larger sprocket wheel 14 operated by a suitable handle member 15. In practice the door 16 is suitably wedged in proper position between the jamb 17 there having been previously placed in position in either side of the places at which the hinge is to be positioned, suitable guide members 18 adapted to be inserted into the slots 5 which guides the machine. These guides 18 working in the slots 5 also hold the machine steady during the operation. Then the handle 15 is operated to drive the several gears described to cause the cutter 8 to rotate in a suitable manner to cut the sockets 19 in the door 16 and jamb 17 the cutter 8 being of sufficient width to cut both of these sockets at the same time thus making them of the same width and depth and exactly alined one with the other whereby they will receive the hinge members in an exact and accurate manner. With my improved device of course the hinge members will have curved leaves instead of square ones as are now generally used.

In practice, the cutter 8 may be composed of a fixed hub 8^a to which may be secured, by set screws 8^b, saw sections 8^c which sections can be of any size desired according as a larger or smaller socket is to be made. In order to lend strength to the guides 18 and to hold the cutting machine steady, I provide a supporting bar 20 having slots 21 adapted to fit over the guides 18 and to prevent them from spreading apart. This bar 20 also has band springs 22 against which the ends of the bifurcated member 3 may be pressed which will hold the entire machine steady during the operation.

From the foregoing description it will readily appear that I have produced such a device as will substantially fulfil the objects of the invention as set forth herein.

While this specification sets forth in de-

tail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:

1. A device of the character described comprising a handle member having projecting arms provided with guide slots in their outer edges, a rotary saw carried by said projecting arms, means for operating said saw and independent guide members adapted to be fixed stationary independently of said arms and to fit into said slots as described.

2. A device of the character described

comprising a handle member, projecting arms on said handle member provided with slots on their outer edges, a rotary saw carried by said arms, means for operating said saw, independent guide members fixed stationary independently of said projecting arms and adapted to fit into said slots, a supporting bar having slots adapted to fit over said guides, and springs on said supporting bar adapted to press against said arms as described.

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

JOSEPH BROADLEY.

Witnesses:

PERCY S. WEBSTER,
JOSHUA B. WEBSTER.