

C. PETERMAN.
GAINING MACHINE.
APPLICATION FILED JUNE 1, 1909.

944,047.

Patented Dec. 21, 1909.

3 SHEETS—SHEET 1.

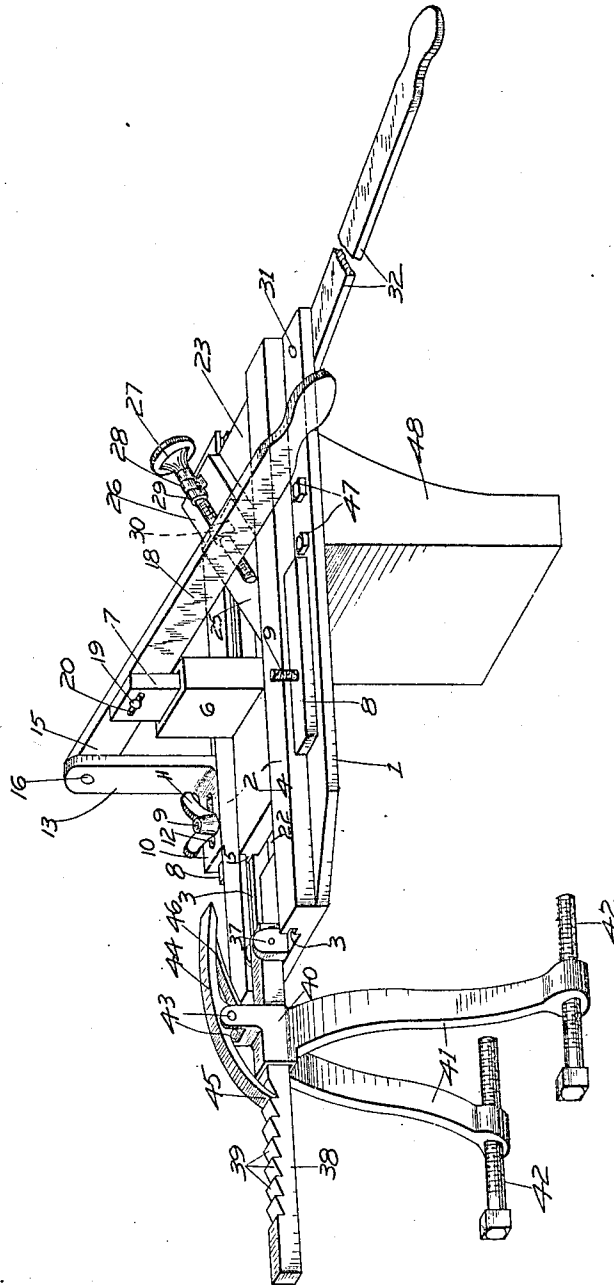


Fig. 1.

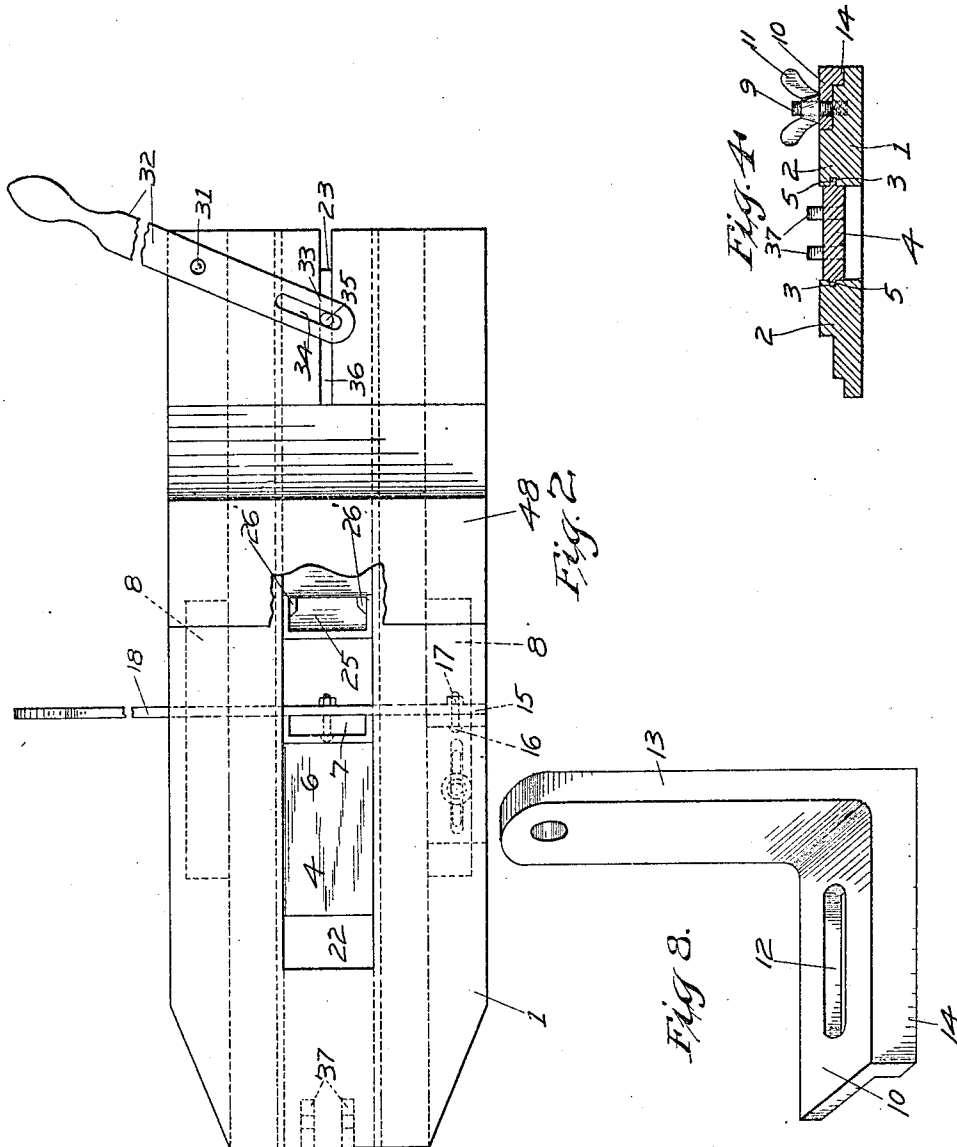
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Inventor:
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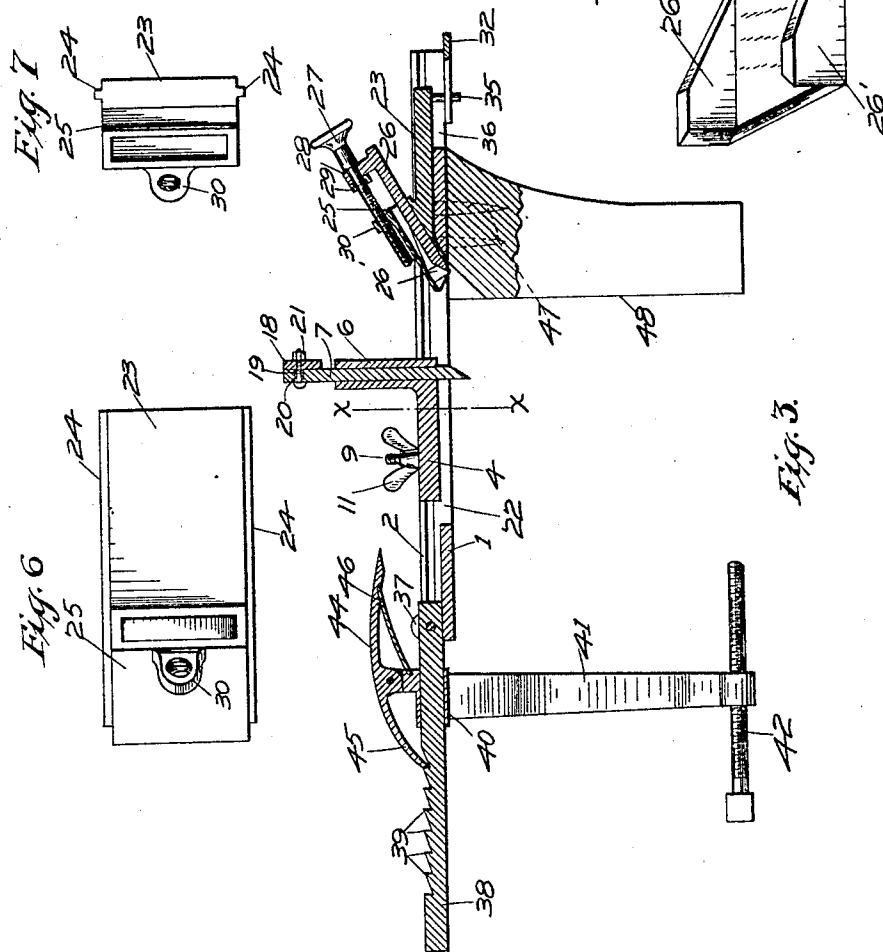
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

CARL PETERMAN, OF FOND DU LAC, WISCONSIN.

GAINING-MACHINE.

944,047.

Specification of Letters Patent.

Patented Dec. 21, 1909.

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To all whom it may concern:

Be it known that I, CARL PETERMAN, a citizen of the United States, residing at Fond du Lac, county of Fond du Lac, and State of Wisconsin, have invented certain new and useful Improvements in Gaining-Machines, of which the following is a specification.

My invention relates to gaining machines and more specifically to that class thereof designed for the gaining of doors and door frames preparatory to the attachment of hinges thereto.

The object of my invention is to provide a gaining machine of the character mentioned which will be of an adjustable nature adapting the same for application to all doors or door frames of thicknesses within ordinary range.

A further object is to provide a device as stated which may be readily and quickly arranged for operation, and which, when arranged, may be readily operated to effect the accurate and expeditiously cutting a gain of desired dimensions.

A further object is to provide a gaining machine which will be strong, durable and simple of construction hence of low cost to manufacture.

Other objects will appear hereinafter.

With these objects in view my invention consists in a gaining machine characterized as above mentioned and in certain details of construction and arrangement of parts all as will be hereinafter fully described and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which,

Figure 1 is a perspective view of my machine in its preferred form, Fig. 2 is a slightly enlarged bottom plan view thereof, Fig. 3 is a central, vertical, longitudinal section, Fig. 4 is a vertical transverse section, taken on line *xx* of Fig. 3, Fig. 5 is an enlarged perspective of one of the blades embodied in the construction, Figs. 6 and 7 are an enlarged top plan and an end elevation respectively of the holder of the blade shown in Fig. 5, and Fig. 8 is an enlarged perspective of the supporting standard of one of the blade operating levers.

Referring now to the drawings 1 indicates the preferably substantially rectangularly

formed body or support of the device, formed upon the upper surface of which are a pair of parallelly extending guide ribs 2 in the adjacent edge surfaces of which are formed grooves or channels 3. Having its base 4 slidably mounted between said ribs 2 the lateral edges of said base being provided with tongues 5 slidable in the grooves 3, is a vertically disposed tubular member 6, preferably rectangular in cross section. Reciprocally mounted in said member 6 is a cutting blade 7 ground preferably as shown in Fig. 3. Formed upon the upper surface of the body 1 adjacent each of the lateral edges thereof is an enlargement 8 secured in and upwardly projecting from which is a stud screw 9.

Having its base 10 slidably mounted upon one of the enlargements 8, the same being adjustably secured thereon by means of a thumb nut 11 threaded upon the stud screw 9 of said enlargement, said screw passing through an elongate slot 12 formed in said base for the reception thereof, is an upright standard 13. By the construction described it is evident that the standard 13 may be arranged upon either side of the support. In order to insure a rigid attachment of said standard to said support, the base 10 of the frame is provided upon its outer longitudinal edge with a depending flange 14 adapted to engage the outer edge of the enlargement upon which it is arranged. However, such provision is not essential inasmuch as the opposite edge of said base rests in engagement with the outer longitudinal edge of the rib 2 adjacent to which it is arranged, as clearly shown in Fig. 4.

Having its extremity 15 pivotally secured, by means of a bolt 16 and a nut 17 threaded upon said bolt, to the upper extremity of the standard 13, is a lever 18 operatively but detachably connected to the blade 7. Such connection between said blade and said lever is preferably effected by means of a bolt 19 extending through an elongate slot 20 provided in the blade and threaded in the lever 18, the same being locked in position in the latter by means of a nut 21. However, any other suitable means of connection may be employed. By such arrangement, the vertical reciprocation of the blade 7 may evidently be readily effected by means of the lever 18. To permit of said blade con-

tacting the surface of the construction upon which the device is arranged, the support 1 beneath said blade is provided with an opening 22.

5 Having its base 23 slidably mounted between the ribs 2, the lateral edges of said base being provided with tongues 24 engaging the grooves 3 of said ribs, is an obliquely disposed tubular blade holder 25 in
10 which is adjustably mounted a cutting blade 26 having at the lateral extremities of the cutting end thereof knife edged flanges 26' projecting from the body of the blade at right angles thereto. In order to effect such
15 mounting of said blade in said holder, a thumb screw 27 is provided. Said screw extends through an ear 28 formed integrally with said blade adjacent the upper extremity thereof, the same being locked against
20 longitudinal movement therein by means of a collar 29 pinned to said screw, and is threaded in an ear 30 projecting from the upper end portion of the holder 25. With such construction, said blade which projects
25 through the opening 22, may be accurately adjusted so as to cut the surface acted upon to any desired depth. Pivottally secured as at 31 to the under surface of the support 1 is a lever 32, the extremity 33, which is provided with an elongate slot 34 engaging a
30 pin 35 depending from the under surface of the blade holder base 23 through a slot 36 provided in the support 1 for the reception thereof. By such provision the horizontal reciprocation of the blade holder 25 and hence of the blade 26 may evidently be readily effected by means of the lever 32.

Having one of its extremities secured between centrally positioned lugs 37 formed
40 upon the upper surface of the body 1 at one extremity thereof is a bar 38 the upper surface of which is provided with ratchet teeth 39. Slidable upon said bar is a sleeve 40 depending from which are arms 41 carrying
45 at their extremities set screws 42 threaded therein and extending there through parallel with the under surface of the support 1. Pivottally secured between lugs 43 formed upon the upper surface of the sleeve 40 is a
50 pawl 44 the extremity 45 of which is adapted to engage the teeth 39. A leaf spring 46 engaging the opposite extremity of said pawl is adapted to normally hold the latter in engagement with said teeth. Depending
55 from the under surface of the body 1, the same being secured thereto preferably by bolts 47 is a block 48 preferably of wood adapted, when the device is in use, to serve in the capacity of a clamping jaw coacting
60 with the arms 41.

In use, the device is clamped upon the door or door frame to be gained, with the edge of the latter resting between the jaw 48 and the arms 41, the same being rigidly

secured thereto by means of the screws 42. 65
Because of the adjustable mounting of the arms 41 upon the bar 38 as before described, such attachment of the device to a door or door frame of any thickness within ordinary range, may evidently be readily effected. 7
Upon the device being attached as stated, the blade 7 upon being correctly adjusted in the support 1, may, by means of the lever 18, be reciprocated to cut the edge of the gain which extends parallel to the longitudinal 75 edges of the door. This being done, the blade 26, by means of the lever 32, may be reciprocated to cleave the member operated upon forming the gain. In this connection, it will be noted, that by the provision of 80 the knife edged flanges 26' upon the blade 26 such will cleave the member operated upon forming the transverse extremities of the gain which they will form clean cut and perfectly square to the bottom of the gain. 85

While I have shown what I deem to be the preferable form of my machine I do not wish to be limited thereto as there might be many changes made in the details of construction and arrangement of parts without 90 departing from the spirit of my invention. And although I have designed my device with special reference to the gaining of doors and door frames I may use the same in the gaining of any other construction to 95 which it is applicable.

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

1. In a gaining machine, the combination 100 of a horizontally extending support, a slidably adjustable blade holder in tongue and groove connection with said support, a cutting blade mounted for vertical reciprocation in said holder, a pivoted lever for operating said blade, a second horizontally reciprocatory blade holder in tongue and groove connection with said support, a cutting blade held in adjustable obliquely disposed position in said holder, cutting flanges 110 provided at the cutting end of said blade disposed at right angles to the body thereof, means for reciprocating said last named holder, and means for securing said support for operation of said blades. 115

2. In a gaining machine, the combination of a horizontally extending support, a blade holder in tongue and groove connection with said support, a cutting blade mounted for vertical reciprocation in said holder, means 120 for operating said blade, a second horizontally reciprocatory blade holder in tongue and groove connection with said support, an obliquely disposed blade adjustably held in said second named holder, means for reciprocating said second named holder, and means for clamping said support to a door or door frame, said means comprising a sta- 125

tionary jaw member depending from said member, a toothed bar extending from one extremity of said support, and a movable jaw member slidable upon said bar held
5 thereon by engagement with the teeth of said bar, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

CARL PETERMAN.

Witnesses:

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RUDOLPH PETERMAN.