C. KINGSLEY.

CLAMPING DEVICE.

APPLICATION FILED JAN. 20, 1910.

998,014.

Patented July 18, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

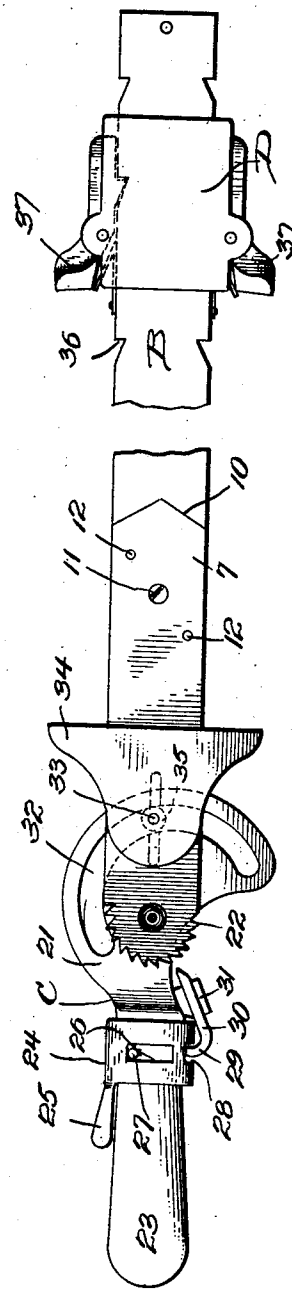


Fig. 4.

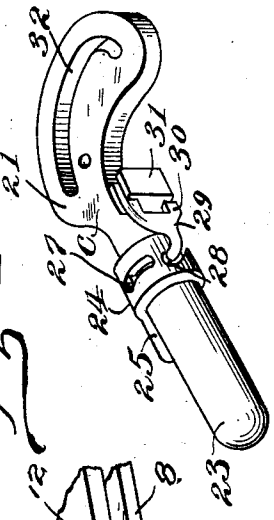
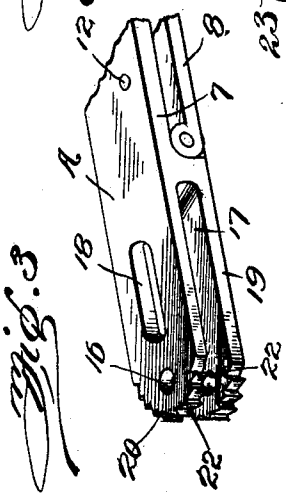


Fig. 3.



Witnesses

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2 SHEETS—SHEET 2.

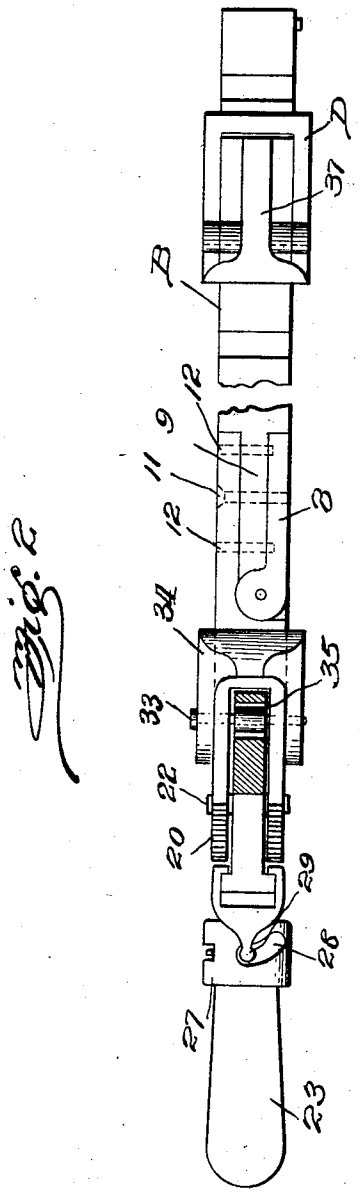

Fig. 2.

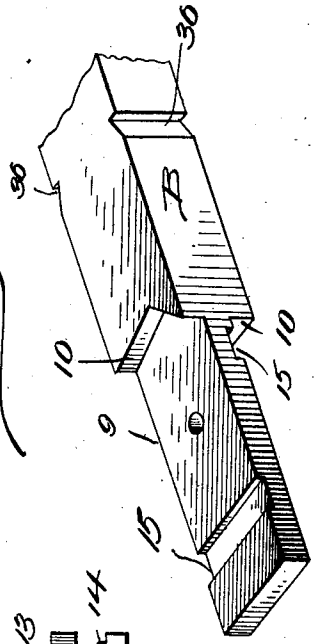

Fig. 6.

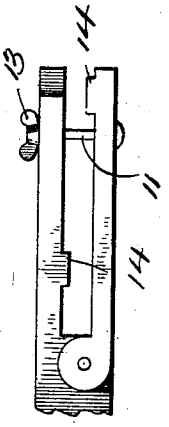

Fig. 5.

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UNITED STATES PATENT OFFICE.

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CLAMPING DEVICE.

998,014. Specification of Letters Patent. **Patented July 18, 1911.**

Application filed January 20, 1910. Serial No. 539,179.

To all whom it may concern:

Be it known that I, CANDIDE KINGSLEY, a subject of the King of Great Britain, residing at Montreal, in the Province of Quebec and Dominion of Canada, have invented new and useful Improvements in Clamping Devices, of which the following is a specification.

This invention relates to clamping devices for the use of joiners, carpenters and other mechanics, and it has for its object to provide a simple and efficient device whereby parts may be engaged and clamped and held securely.

A further object of the invention is to provide a clamping attachment having simple and convenient means whereby it may be adjusted to engage parts of various dimensions.

A further object of the invention is to provide a simple and improved locking device, whereby the clamp may be secured in engaging position.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings,—Figure 1 is a top plan view of a clamping device constructed in accordance with the invention. Fig. 2 is a side elevation of the same. Fig. 3 is a perspective detail view, showing one end of the body member of the improved clamp. Fig. 4 is a perspective detail view, showing the eccentric jaw adjusting member and the handle detached. Fig. 5 is a perspective detail view, showing a modified form of the body member. Fig. 6 is a perspective view, showing one end of the detachable stem adapted for engagement with the modified form of the body member.

Corresponding parts in the several figures are denoted by like characters of reference.

The body or stem holder A of the improved device is composed of two hingedly connected members 7 and 8 adapted to receive between them the heel end 9 of a stem B which may be of any desired length, said stem being provided with angular shoulders or offsets 10 to abut upon the correspondingly shaped terminals of the hingedly connected members 7 and 8. Said members are adapted to be connected together by a clamping screw 11 extending through the heel 9 of the stem, and dowel pins 12 may be provided, as shown in Figs. 1 and 3 and in dotted lines in Fig. 2, for the purpose of rendering the connection more secure. The clamping screw 11, as shown in Fig. 5, may be equipped with a wing nut 13; and the hingedly connected members may be provided upon the faces thereof with transversely disposed ribs 14 adapted to engage corresponding grooves 15 in the heel 9 of the stem, as shown in the modified construction illustrated in Figs. 5 and 6. The heel end of the body member or stem holder A is rounded on a line concentric with the bolt aperture 16 formed therein, and said body member is provided with a transverse slot or recess 17 which is intersected by a vertical slot 18 extending through the side members 19 lying adjacent to the recess 17. The curved heel ends of the side members 19 are provided with teeth 20 to form segment ratchets, as shown clearly in Figs. 1 and 3.

The handle member C of the device is formed with a head 21 mounted pivotally upon a pin or bolt 22 extending through the aperture 16 in the body member, the head 21 being accommodated within the recess 17. The member C is provided with an extension forming a hand grip 23, the latter being of circular cross section to afford a seat for a sleeve or collar 24 which is mounted for oscillation thereupon and which is provided with a thumb piece 25 whereby it may be manipulated. The sleeve 24 is provided with a guide slot 26 at right angles to the axis thereof, said slot engaging a pin 27, whereby the rotation of the sleeve is limited. Said sleeve is also provided with an obliquely disposed slot 28 to receive the downturned lip 29 formed at the rear end of a yoke 30 constituting a pawl which is guided upon a suitable guide lug 31 upon the member C, said pawl being adapted to engage the ratchets 20 for the purpose of retaining the pivotally supported member

C in adjusted position with relation to the body member A. It will be readily seen that by rocking or oscillating the sleeve or collar 24 upon the handle member, the pawl may be engaged with or disengaged from the ratchet members according to the direction of rotation.

The head 21 of the member C is provided with an arcuate slot 32 which is eccentric to the axis of the pivotal bolt or member 22, said slot being engaged by a guide member 33 extending through a slidable jaw member 34 which is mounted upon the device and extending also through the slot 18, whereby a limited sliding movement of the jaw 34 is permitted. The guide member 33 may be and is preferably provided with an antifriction roller 35 to facilitate the operation of the device. It will be readily seen that by rocking the member C upon the pivot 22, the jaw 34 may be moved toward or away from the heel end of the body member A by the action of the guide member 33 operating in the eccentric slot 32, and that the parts may be held in adjusted position by the pawl 30 engaging the ratchets 20; by forming the pawl in the shape of a yoke, as herein described, the ratchets of both members 19 adjacent the recess 17 in which the member C is pivoted will be simultaneously engaged, and a durable and effective construction is attained.

An adjustable jaw or clamping member D is mounted slidably upon the stem B, the sides of which are provided with notches 36 adapted to be engaged by spring-actuated pawls 37 pivoted upon the jaw member D for the purpose of retaining the latter in adjusted position upon the stem. It is obvious that a stem of any desired length may be used, and by providing a plurality of interchangeable stems of different lengths, the capacity and range of use of the implement may be considerably increased. It is also obvious that by detaching the stem from the body member of the device, the implement may be packed for storage and transportation in a comparatively small space.

From the foregoing description taken in connection with the drawings hereto annexed the operation and advantages of this invention will be readily understood. A stem is provided of suitable length to operate upon the parts or members that are to be clamped, and after mounting the stem upon the body member the jaw member D is fixed in the closest possible relation to the sliding jaw 34, when the latter is withdrawn as closely as possible to the heel of the body member. The handle member C is now manipulated by turning it upon the pivot 22 in such a manner as to force the jaw 34 in the direction of the jaw D, the pawl 30 having been previously disengaged from the ratchets 20 by rocking the sleeve 24 upon its support. When the parts have been tightly clamped, the sleeve 24 is again rocked to place the pawl 30 in engagement with the ratchets, and the clamp will thus be locked in position.

Having thus described the invention, what is claimed as new, is:—

1. In a clamping device, a body having a notch and a slot intersecting said notch, said body having a curved heel end provided with teeth, a handle member having a head pivoted in the recess and provided with an eccentric slot, a pawl mounted upon the handle member for engagement with the teeth, a jaw slidable upon the body, and a guide member extending through the jaw and through the slots in the body member and in the head of the handle member.

2. In a clamping device, a body member, a jaw slidable thereon, a head pivoted upon the body member and having an eccentric slot, a guide member connected with the jaw and extending through the eccentric slot, a sleeve mounted for oscillation upon the handle member and having an oblique slot, and a yoke-shaped pawl supported for sliding movement upon a lug extending from the handle member and having a lip engaging the oblique slot; the body member being provided with ratchet teeth for engagement with the pawl and with the longitudinal slot for the passage of the guide member connected with the sliding jaw.

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

CANDIDE KINGSLEY.

Witnesses:
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LORENZO GARCEAU.