

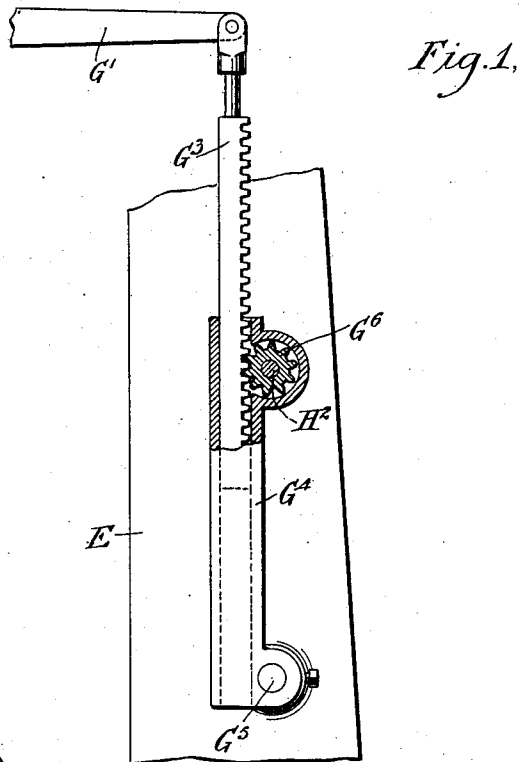
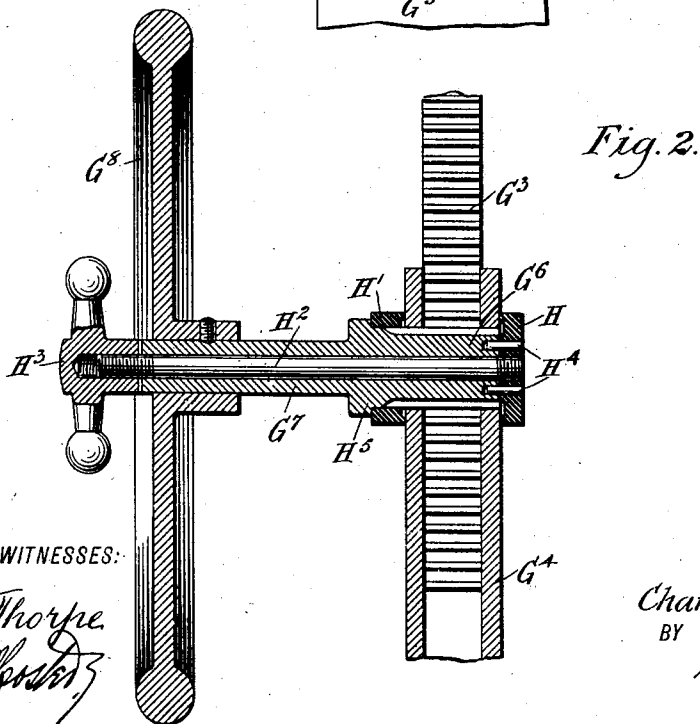
No. 762,096.

PATENTED JUNE 7, 1904.

C. SEYMOUR.
CLAMPING DEVICE.

APPLICATION FILED APR. 29, 1904.

NO MODEL.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES SEYMOUR, OF DEFIANCE, OHIO, ASSIGNOR TO THE DEFIANCE MACHINE WORKS, OF DEFIANCE, OHIO.

CLAMPING DEVICE.

SPECIFICATION forming part of Letters Patent No. 762,096, dated June 7, 1904.

Original application filed January 30, 1904, Serial No. 191,272. Divided and this application filed April 29, 1904. Serial No. 205,456. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SEYMOUR, a citizen of the United States, and a resident of Defiance, in the county of Defiance and State of Ohio, have invented a new and Improved Clamping Device, of which the following is a full, clear, and exact description, this being a division of the application for Letters Patent of the United States for a band-saw, Serial No. 191,272, filed by me January 30, 1904.

The object of the invention is to provide a new and improved clamping device for a rack-and-pinion movement arranged to allow the operator to conveniently turn the pinion to move the rack-bar to a desired position and to permit of locking the pinion, and consequently the rack-bar, against movement whenever the rack-bar has been moved to the desired position.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claim.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a sectional side elevation of the improvement, and Fig. 2 is an enlarged transverse section of the same.

The clamping device illustrated in the drawings is shown applied to a rack-and-pinion movement, of which the rack-bar G^3 is pivotally connected at its upper end with the free end of a lever G^1 , connected with a slidable bearing on which one of the band-wheels of a band-saw is journaled, as more fully described in the application for Letters Patent above referred to.

The rack-bar G is mounted to slide up and down in a bearing G^4 , fulcrumed at its lower end at G^5 on the main frame E of the machine on which the rack and pinion are used. A pinion G^6 is in mesh with the rack-bar G^3

and is mounted to turn in suitable bearings arranged on the rack-bar bearing G^4 , so that when the pinion is turned an up or down sliding motion is given to the rack-bar G^3 , so as to swing the lever G^1 either upward or downward.

In order to turn the pinion G^6 in the desired direction, the hub G^7 thereof is provided with a suitable hand-wheel G^8 , under the control of the operator.

In order to securely lock the rack-and-pinion movement after the desired adjustment is made, clamping-plates H and H' are provided, adapted to engage opposite sides of the rack-bar bearing G^4 , as plainly indicated in Fig. 2. The clamping-plate H is secured on one end of a screw-rod H^2 , extending loosely and centrally through the pinion G^6 and its hub G^7 , and on the forward threaded end of the screw-rod H^2 screws a hand-nut H^3 , under the control of the operator and abutting against the forward end of the hub G^7 . The plate H is provided with pins H^4 , slidably engaging the rear end of the pinion G^6 to cause the plate to turn with the pinion. The clamping-plate H' is fitted on the front end of the pinion G^6 and abuts against an annular shoulder H^5 , formed integral on the hub of the pinion. When the operator screws up the nut H^3 , then the clamping-plates H and H' move in firm contact with opposite sides of the rack-bar bearing G^4 , so as to securely hold the pinion G^6 against turning, thereby preventing accidental up-and-down movement of the rack-bar G^3 after the slidable bearing above mentioned is adjusted to the desired position.

When it is desired to actuate the rack-and-pinion movement, it is necessary for the operator to first unscrew the nut H^3 , so as to release the clamping-plates H and H' from the rack-bar bearing G^4 to permit turning of the pinion G^6 for the purpose above mentioned.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A clamping device for a rack-and-pinion movement, comprising a screw-rod extending

loosely and centrally through the pinion, a
nut screwing on the screw-rod and abutting
against one end of the pinion, a clamping-
plate on the screw-rod, abutting against one
5 side of the bearing for the rack, and a clamp-
ing-plate on the pinion, engaging the oppo-
site side of the said bearing.

In testimony whereof I have signed my name
to this specification in the presence of two sub-
scribing witnesses.

CHARLES SEYMOUR.

Witnesses:

GEO. W. DEATRICK,
JOS. BAUER.