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T. BUEHLER.

CARPENTER'S TOOL.

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Fig. 1.

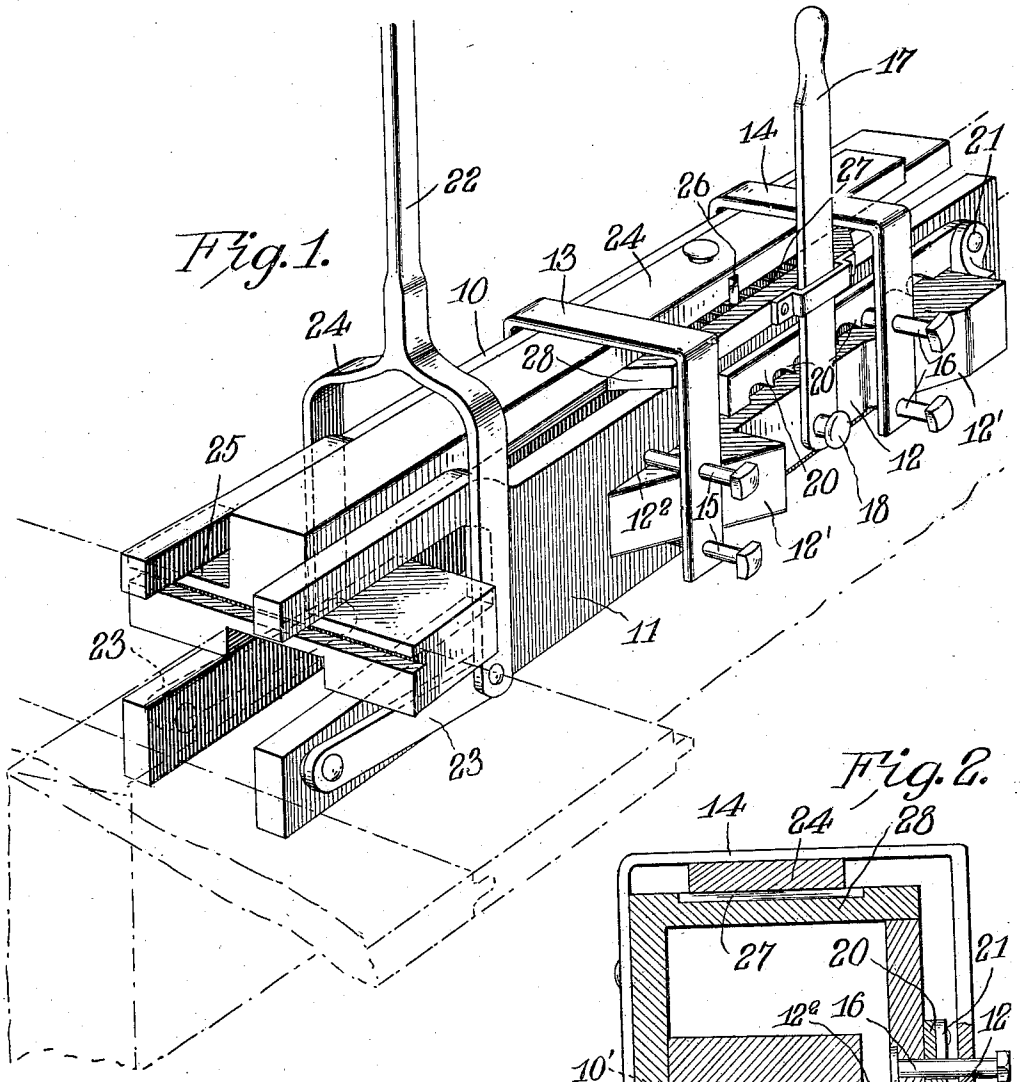
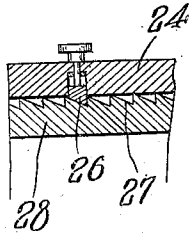


Fig. 2.

Fig. 3.



Witnesses

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CARPENTER'S TOOL.

No. 889,104. Specification of Letters Patent. Patented May 26, 1908.

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To all whom it may concern:

Be it known that I, THEODORE BUEHLER, a citizen of the United States, residing at Dorrance, in the county of Russell and State of Kansas, have invented certain new and useful Improvements in Carpenters' Tools, of which the following is a specification.

This invention relates to apparatus used by carpenters and builders, and has particular reference to devices for use in laying flooring, weatherboarding, ceiling, and the like.

More specifically stated this implement relates to the class of devices commonly known as floor-jacks.

The invention consists in certain details of construction which will be hereinafter fully set forth and claimed, reference being had to the accompanying drawings, in which,

Figure 1 is a general perspective view of the apparatus; Fig. 2 is a vertical transverse section showing the relation between the actuator and the movable side member, and Fig. 3 is a vertical longitudinal detail of the locking device.

Throughout the following description and on the several figures of the drawings similar parts are referred to by like reference characters.

In its preferred embodiment the invention includes side members or frames 10 and 11, between which there is a certain amount of relative movement toward and from each other. Said members are designed to embrace a joist to which the flooring or the like is to be secured as by nailing. In order to cause the members 10 and 11 to approach each other for the purpose of clamping the apparatus in position, I provide a wedging device or actuator 12 carrying cams 12′ which extend outwardly in substantially the plane or direction in which the side member 11 is movable. The inner or plane face 12″ of the actuator lies against the outer face of the member 11 and is loosely connected therewith. In order to loosely connect the side members 10 and 11 I provide U-shaped yokes 13 and 14 which have rigid connection with the member 10 and extend upwardly therefrom and over both of the members 10 and 11 and have loose connection with the member 11. As a suitable means for effecting such loose connection I provide preferably sets of spaced bolts 15 and 16 which are secured to the member 11, and project outwardly through the yokes 13 and 14. The cam members 12″ of the actuator operate between the respective sets of bolts 15 and 16 and are guided thereby for operation in a longitudinal direction. A hand lever 17 is pivoted to the actuator as at 18 and projects vertically therefrom through a guide or fulcrum 19. It will be apparent that the operation of the lever 17 in a vertical plane will cause reciprocation of the actuator 12 and by virtue of the cams 12′ will cause the member 11 to approach the member 10 causing said members to grip the joist. Any suitable means may be employed for locking the actuator in such adjusted position. As an example of such means I have indicated a bar 20 having a series of teeth 20′ adapted to engage one of the bolts 16. This bar 20 is constructed of rigid material and is provided with a downwardly curved end 21 which is secured to the rear end of the actuator. When the actuator is adjusted, the bar 20 will be moved therewith and one of the teeth 20′ will engage over the bolt 16, holding the same in place.

The hand lever 22 operates substantially in the vertical longitudinal plane of the device, and has a bifurcation at its lower end, each part of the fork having pivotal connection with a link 23 pivoted loosely to the front end of the corresponding side member of the device. Each side member, furthermore, is bifurcated at its forward end, the bifurcation lying in a vertical plane, and the upper members of the side bifurcations are adapted to lie above the plane of the floor.

In applying the apparatus in use the lower portions of the side member bifurcations will lie below the piece of flooring to be set in place, or in other words, said flooring will be received between the bifurcations of said side members. A follower 24 having a head 25 is adapted to engage the outer edge of the piece of flooring, and is operated thereagainst by said vertical lever 22. The head 25 may be grooved if desired to correspond with the form of the flooring and also may be provided on its under side with a groove to guide the same upon the joist. The main portion of the follower 24 operates within and is guided by the aforesaid yokes 13 and 14. At any convenient point, as at its rear end, the follower is provided with a downwardly projecting stud or spur 26 adapted to engage in any one of the series of holes or notches 27 in a plate 28 secured to the top of the member 10, whereby the follower will be automatically locked in adjusted or set position.

It will be understood that the apparatus will be constructed of any suitable materials, and certain slight mechanical variations in the same may be made within the spirit of the invention as claimed hereinafter. If desired the inner faces of the members 10 and 11 may be provided with points or teeth which will enter the structure of the joist and thereby increase the effectiveness of the grip of the device.

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

1. In a floor-jack of the character set forth, the combination of side members located in vertical parallel planes and movable toward and from each other, U-shaped yokes rigidly secured to one of said members and having loose connection with the other of said members, an actuator having longitudinal movement in proximity to one of said side members and coöperating with the said yokes and causing said side members to approach each other, means fulcrumed upon the other of said side members and having connections with said actuator for operation thereof, means connected with said actuator and adapted to coöperate with one of the yoke connections for locking the actuator in adjusted position, a follower coöperating with said side members, and means having loose connection with the side members for operation of the follower.

2. In a floor-jack of the character set forth, the combination of side members lying in parallel vertical planes and movable toward and from each other, each of the side members being bifurcated at its forward end, a follower coöperating with said side members for longitudinal movement thereof, a head for the follower lying transversely and within the bifurcations of said members, a bifurcated operating lever having loose pivotal connection with the forward ends of the side members and coöperating with said head for operation of the head and follower, means whereby the follower may be automatically locked in adjusted position, means coöperating with one of said side members to cause the same to approach the other, and means fulcrumed upon the other of said side members to operate the aforesaid means.

3. In a floor-jack, the combination of side members lying in vertical parallel planes, said side members being bifurcated at their forward ends, links pivoted at one end to the lower portions of said bifurcations, a bifurcated hand lever pivoted to the opposite ends of said links and embracing the upper portions of said side member bifurcations, a follower disposed between said side members and movable longitudinally thereof, a head carried by such follower lying transversely in front of said bifurcated lever for operation thereby, means for securing the follower in adjusted position, and means for initially causing said side members to approach each other for the purpose of clamping the apparatus in position.

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

THEODORE BUEHLER.

Witnesses:

EDWARD FLAVIN,

ANTON SECHTEM.