

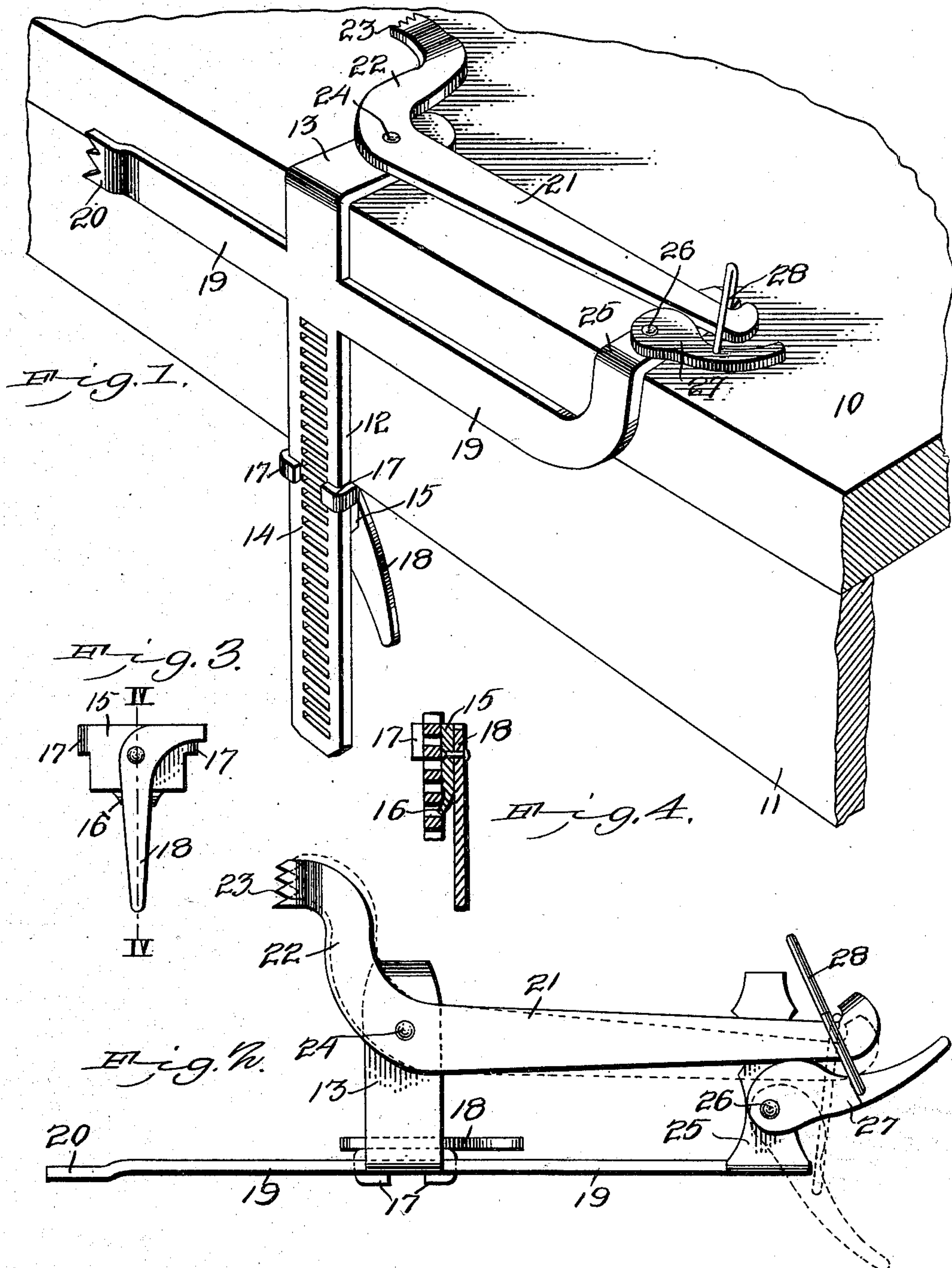
No. 731,647.

PATENTED JUNE 23, 1903.

M. J. WOLFE.
BENCH STOP.

APPLICATION FILED JULY 23, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

MILTON J. WOLFE, OF CENTER, OHIO.

BENCH-STOP.

SPECIFICATION forming part of Letters Patent No. 731,647, dated June 23, 1903.

Application filed July 23, 1902. Serial No. 116,696. (No model.)

To all whom it may concern:

Be it known that I, MILTON J. WOLFE, a citizen of the United States, residing at Center, in the county of Montgomery and State of Ohio, have invented a new and useful Bench-Stop, of which the following is a specification.

This invention relates to attachments employed upon the work-benches of carpenters, cabinet-makers, carvers, pattern-makers, and the like for the purpose of holding the work in position thereon, and has for its object the production of a simple device which may be applied to any bench and adjusted thereon to any desired extent to adapt it to the work to be held; and the invention consists in certain novel features of the construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, Figure 1 is a perspective view of the device applied. Fig. 2 is a plan view. Fig. 3 is a rear view of the adjustable clip. Fig. 4 is a vertical section on the line IV IV of Fig. 3.

The device may be applied to any of the various forms of work-benches employed by woodworkers, either to those having a simple plank top of from two to four inches thick or to benches having a wider face member, and for the purpose of illustration the device is shown in the drawings applied to a bench of the latter description, 10 representing the top of the bench, and 11 representing the "face" member, the latter engaging the under side of the top, and arranged flush therewith, as shown, in the usual manner.

The improvement which is the subject of the present application consists in a vertical bar 12, adapted to engage the front edge of the top 10 and the outer face of the member 11 and extend below the lower edge of the latter, as shown. The upper end of the bar 12 is bent over at right angles, as shown at 13, and engages the top of the member 10. The lower part of the member 12 is formed with spaced apertures or recesses 14, and slidably disposed upon the portion containing these apertures is a clip 15, having its lower end turned off slightly and adapted to engage the apertures successfully and also provided with keepers 17, bent over the edges of the member 12 to retain the clip in position.

Pivotally engaging the clip 15 is a cam-lever

18. By this means the clip 15 is adjustable vertically upon the member 12 and adapted to engage the apertures 14 at any point desired to enable the cam 18 to engage the under side of the top 10 or the face member 11, according as to which form of bench the device is employed upon. It will be obvious that with this form of clip the device may be clamped to any portion of the bench within the range of the apertures 14, and if the member 12 be made long enough the device may be attached to any width of face member 11 or to any thickness of top 10.

Formed upon the member 12 is a bar 19, extending in opposite directions horizontally from the vertical member and with an offset 20 upon its forward end, the extremity of the offset being serrated, as shown. This horizontal member 19 is preferably formed integral with the member 12, and the offset 20 is adapted to support the rear end of any piece of work held in the vise or in a vertical position upon the side of the bench, as will be understood.

The vise is not shown, as it forms no part of the present invention, and its operation and use are so well known.

The member 19 extends horizontally to the rear of the member 12 and is turned upward and over the upper part of the member 10 of the bench, parallel to the upper end 13 of the member 12, as shown at 25. Pivotally engaging the angular end 13 is an arm 21, having its forward end 22 turned off at right angles and terminating in serrations 23, as shown. The pivot of the arm 21 22 is shown at 24, and the free end of the arm 21 is extended across the portion 25 of the member 19, as shown. Pivoted at 26 to the member 25 is a cam 27, adapted to engage the free end of the member 21 and move it longitudinally of the member 25 when operated in one direction, as will be obvious. The cam 27 will be provided with a link 28, connecting it movably to the arm 21, so that when the cam is moved outwardly in its return stroke the arm 21 will be carried with it.

Work-benches of the character to which this device is applicable are provided with a "head" holding-hook, and these holding-hooks are constructed in various ways; but as they form no part of the present invention

they are not illustrated. It will be understood, therefore, that one of these bench-hooks will be employed in connection with the present invention. When a piece of work is to be supported upon the top of the bench, it will be placed in position with one end in engagement with the head-hook above referred to. The cam 27 will then be withdrawn, so that the arm 21 is in its outward position, which action will also bring the portion 22, with its serrated end 23, also in its withdrawn position. The lever 18 will then be released, so that the whole device may be moved toward the work to be held, with the serrated end 23 in engagement therewith. The clip 15 is then adjusted upward until its end 16 engages the uppermost possible notch 14, which will bring the cam 18 in the closest possible engagement with the under side of the face member 11 or the top 10, as the case may be. The cam 18 is then operated to clamp the member 12 and its attachments firmly to the bench. The cam 27 is then forced upward or inward, which action will force the arm 21 inward and throw the serrated end 23 into forcible engagement with the work upon the bench and firmly support it. When the piece of work is to be released, it is only necessary to reverse the position of the cam 27, as will be obvious. By this simple means the device is readily and quickly adjustable to the work to be held, or may be removed entirely from the bench when not required. It may also be employed for supporting work either upon the top of the bench, or upon the side of the bench, and may be adapted to any of the various structures of bench employed by artisans in wood, and will be found very useful and convenient for the above-noted purposes.

The device may be employed, with slight modifications, for holding materials other than wood upon work-benches, and I do not wish to be limited, therefore, to any specific material or to any form of material, as the device may be employed for various purposes, and I therefore reserve the right to the use of the device wherever its use is possible.

The member 12, with its extensions 19 and offset 20, will preferably be "struck up" from one piece of steel, while the member 21 with its serrated end 23, will also preferably be struck up from one single piece. The parts 12 19 may, however, be formed in separate pieces, suitably connected, if preferred. The parts may be formed of malleable iron or of any other suitable metal, and I do not, therefore, wish to be limited to any specific metal or combinations of metal. The device is calculated, however, more particularly, as above stated, to be formed from steel, and may be of any suitable strength and the sizes and proportions varied and modified to any desired extent without departing from the principle of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim is—

1. A bench-hook comprising a vertical supporting member provided with an angular extension to rest upon the top of the bench, means for clamping the said member to the bench, a lever pivoted to the extension and provided with terminal serrations, an arm projecting rearward from the supporting member and provided with an extension to bear upon the bench, a cam pivoted to the said arm, and a link connected with the cam and engaging the lever.

2. A bench-hook comprising a vertical supporting member provided with an angular extension to rest upon the top of the bench, means for clamping the said member to the bench, a lever pivoted to the extension, a horizontal arm integral with the supporting member and provided with an angular extension to bear upon the bench, a cam pivoted to the latter extension, and a link connected with the cam and engaging the lever.

3. In a bench-hook, a vertical supporting member with its upper end bent to shape and engaging the top of the bench, means for clamping said vertical supporting member detachably to the bench, a transverse member extending horizontally in opposite directions from said vertical member and provided at one end with means for engaging the work to be held at the side of the bench and with its other end bent to shape and engaging the top of the bench, a lever movably engaging the upper end of said vertical supporting member and extended over the bent end of said transverse member, and a cam carried by the bent end of said transverse member and adapted to operate said lever to cause it to forcibly engage the work being held on the bench, substantially as described.

4. In a bench-hook, a vertical supporting member with its upper end bent to shape and engaging the top of the bench, means for clamping said vertical supporting member detachably to the bench, a transverse member extending horizontally in opposite directions from said vertical member and provided at one end with means for engaging work to be held at the side of the bench, and with its other end bent to shape and engaging the top of the bench, a lever movably engaging the upper end of said vertical supporting member, and a cam carried by the bent end of said transverse member and adapted to operate said lever to cause it to forcibly engage the work being held on the bench, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MILTON J. WOLFE.

Witnesses:

WM. BAKER,
GRANT LEES.