A. G. MERKELL.

BENCH STOP FOR CARPENTERS.

APPLICATION FILED MAR. 19, 1910.

968,866.

Patented Aug. 30, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

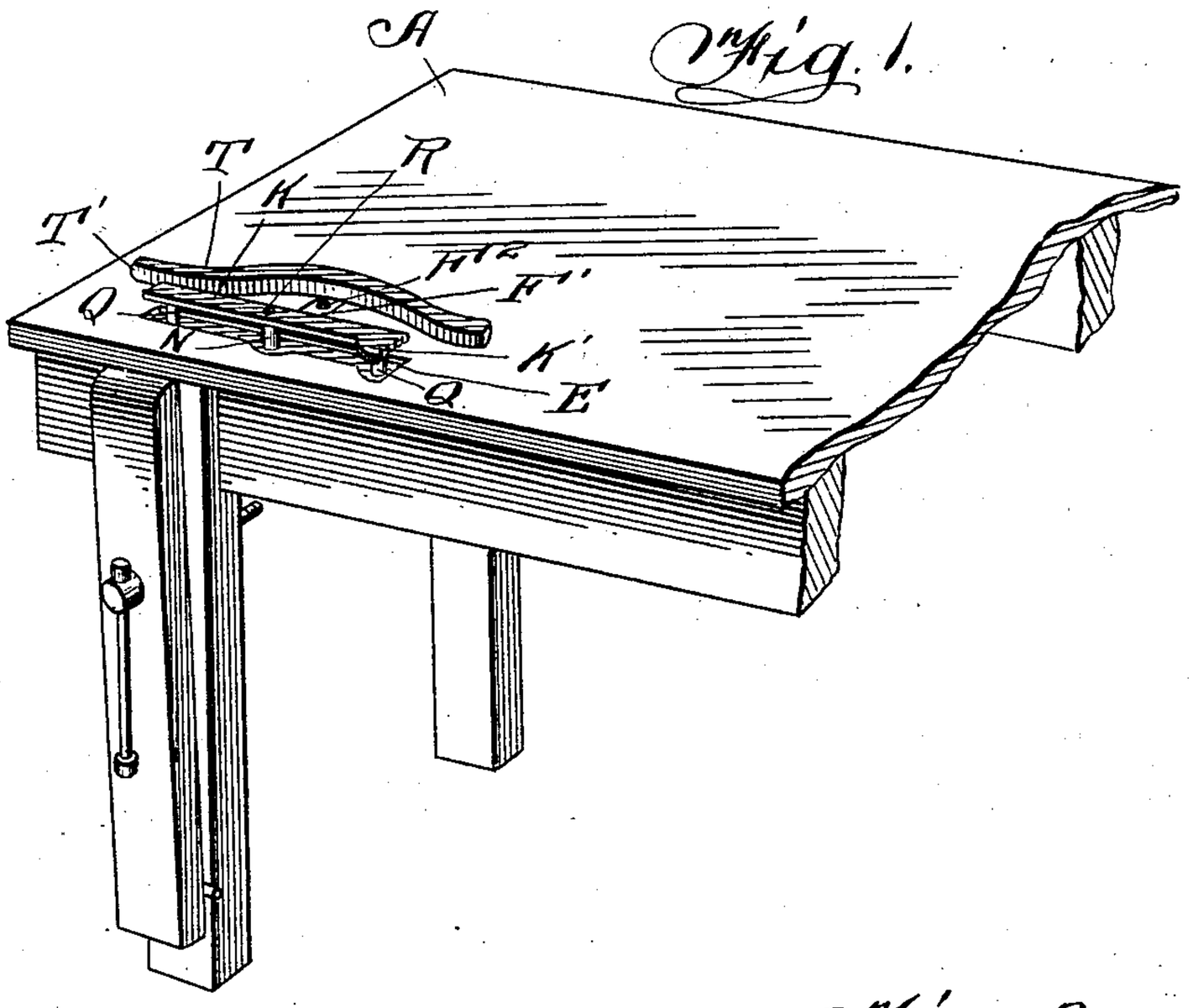
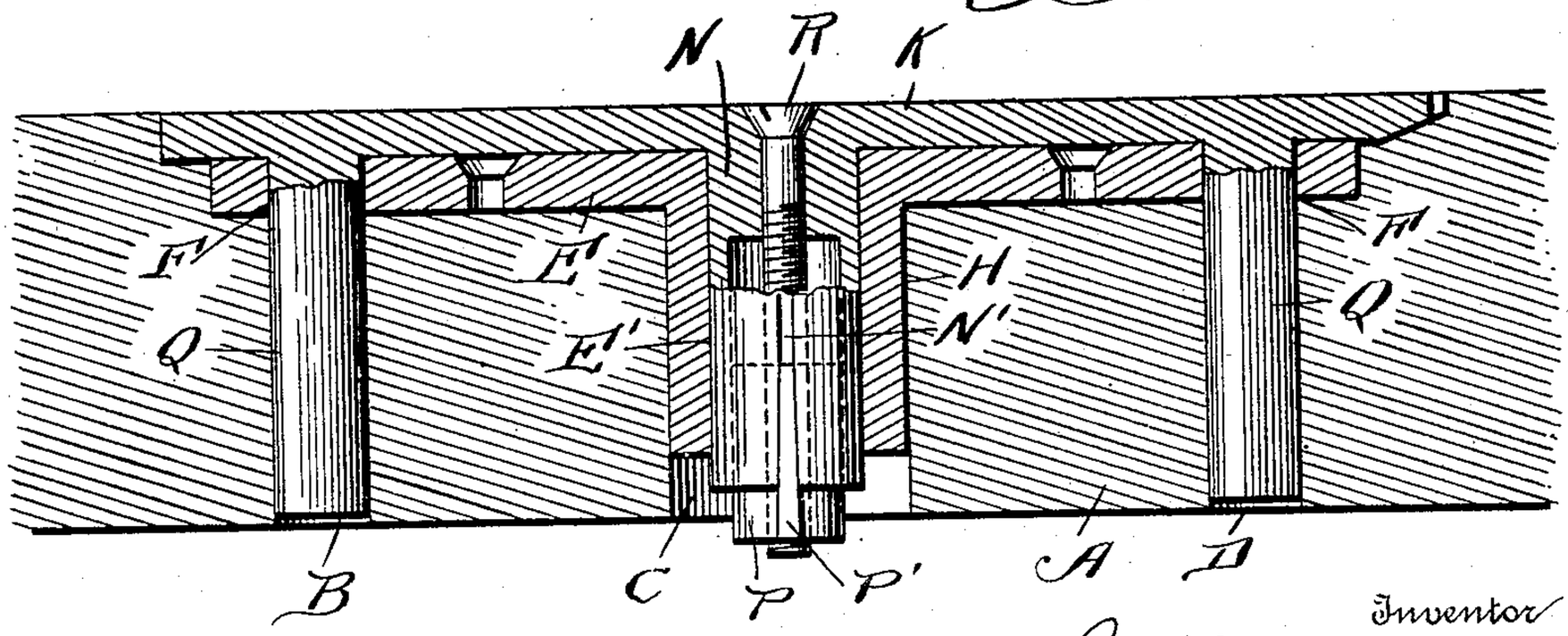


Fig. 3.



Witnesses
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"
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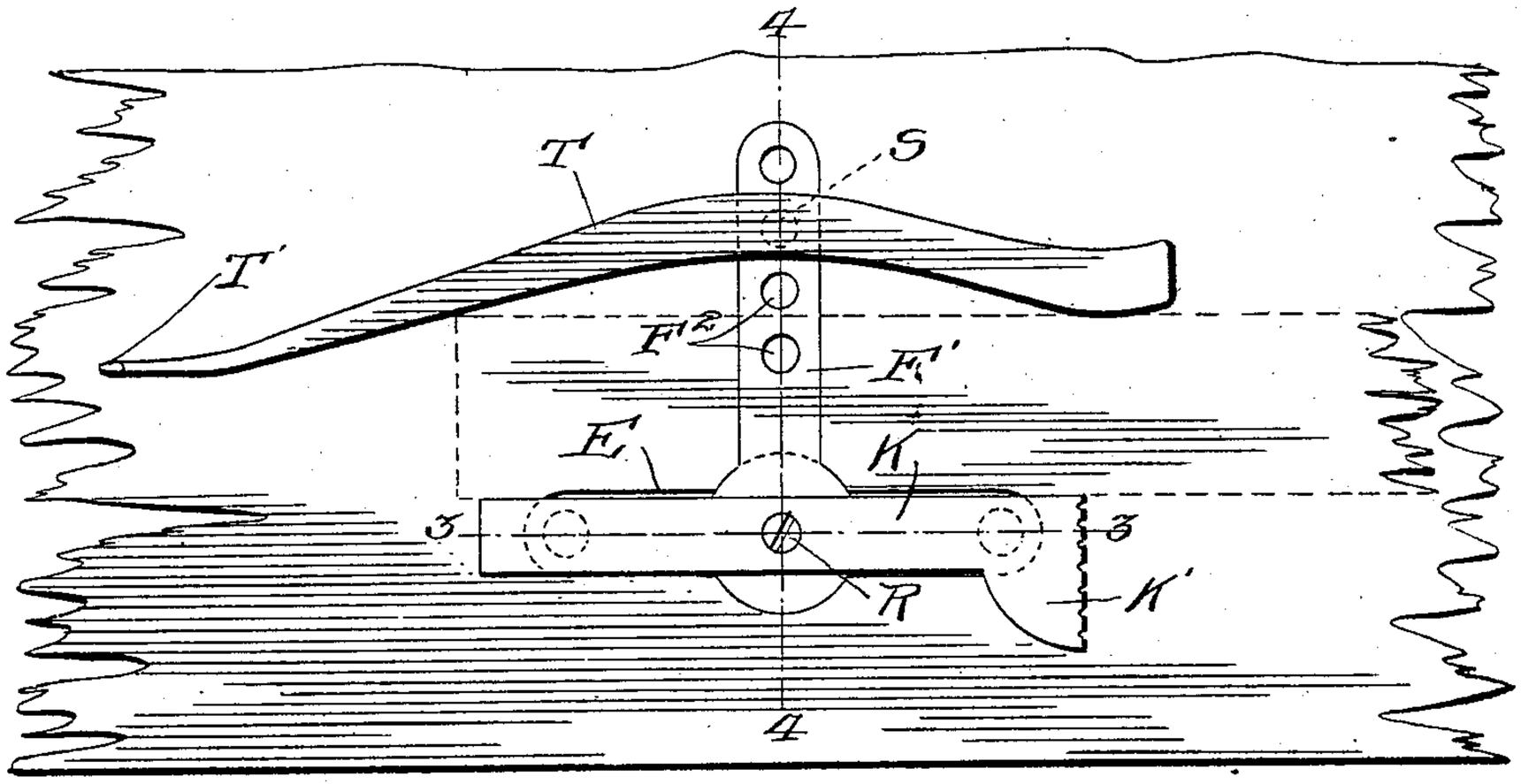
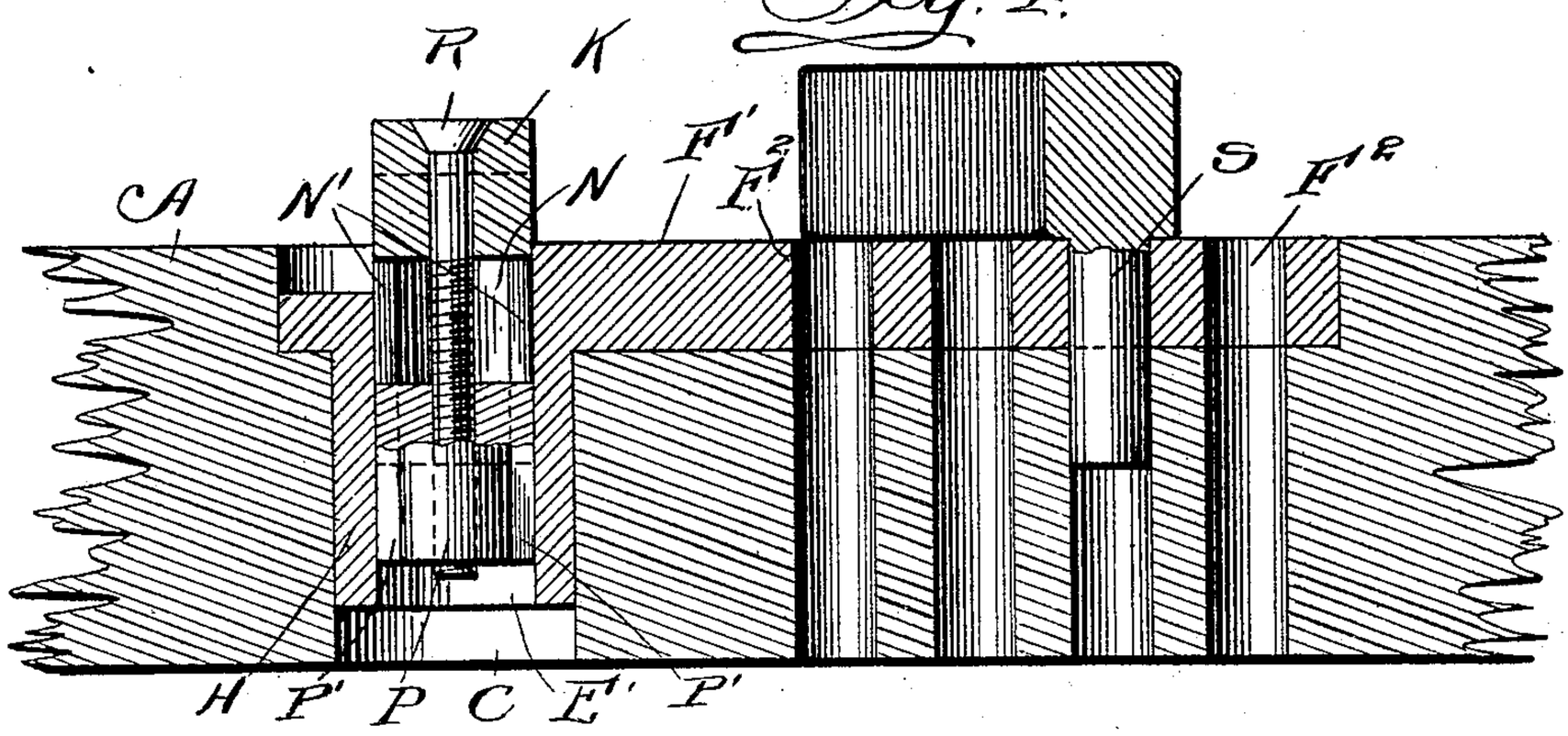


Fig. 2.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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BENCH-STOP FOR CARPENTERS.

968,866. Specification of Letters Patent. **Patented Aug. 30, 1910.**

Application filed March 19, 1910. Serial No. 550,503.

To all whom it may concern:

Be it known that I, ALBERT G. MERKELL, a citizen of the United States, residing at Ellensburg, in the county of Kittitas and State of Washington, have invented certain new and useful Improvements in Bench-Stops for Carpenters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marks thereon, which form a part of this specification.

This invention relates to new and useful improvements in bench stops adapted for carpenters' and mechanics' use and comprises a simple and efficient device of this nature so constructed that it may be adjustably held upon a bench and affording means for securely holding a piece of timber while being planed.

The invention consists of various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a perspective view showing the device as applied to a bench. Fig. 2 is a top plan view showing a piece of wood being held by the device. Fig. 3 is a sectional view on line 3—3 of Fig. 2, and Fig. 4 is a sectional view on line 4—4 of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates a bench having the apertures B, C and D formed therein.

E is a plate having a central aperture E′ and apertures F adjacent to the ends of the arms of said plate and projecting laterally from said plate is an arm F′ having a series of perforations F² therein. Said central opening E′ has a bushing H integral with the plate and the outer surface of said bushing and the inner circumference of the aperture E′ are flush. Said bushing is adapted to engage the apertures C formed in the bench. When the plate is adjusted for use, the under face of the laterally projecting arm F′ is adapted to rest upon a bench.

K designates a plate having a widened end K′ with serrations formed therein and forming means against which a board may be held while being planed upon the bench.

Projecting from the under face of said plate K are the pins Q which are adapted to be passed through the apertures F formed in the ends of the arms of the plate E and serve as guides in the adjustable movements of the plate K. A hollow boss N projects centrally from the plate K and has diametrically opposite slots N′ formed therein, and R designates a screw passing through an aperture in the plate K and in which aperture the head of the screw is adapted to be countersunken so that its outer face will be flush with the upper face of the plate K. A plug, designated by letter P, is mounted within the boss N and has diametrically disposed ribs P′ projecting from its circumference and which are adapted to engage the slots N′ formed in said boss N, said ribs being slightly tapering so that, as the plug is drawn within the boss, it will have a tendency to expand the latter causing the outer circumference of the boss to frictionally engage the inner circumference of the bushing H and hold said plate K in an adjusted position. Said screw is adapted to engage the threads in a centrally disposed longitudinal aperture in the plug P and affording means whereby, as the screw is turned in one direction or the other, said plug may be moved longitudinally.

T designates a curved clamping lever, one end T′ of which is bent preferably for use as a screw driver and affording means whereby the screw for operating said expanding bushing may be operated. Projecting from said clamping lever is a pin S which is designed to be fulcrumed in one or the other of the perforations F², accordingly as it may be desired to adjust the lever to coöperate with the plate K to clamp the pieces of wood of different thicknesses. It will be noted that said clamp has a peculiar shape which is bowed with the outer ends slightly convexed upon their inner faces and affording means whereby, when a stick of timber is inserted intermediate the convexed portions of the lever and the plate K and pushed longitudinally, one end of the lever will yield slightly and cause the piece of timber to be frictionally held in position while being operated upon by a plane, or other tool.

By adjusting the screw, it will be noted

that the plate R may be raised or lowered and held in suitable position to coöperate with the lever for holding the work. If it should be desired to dispense with the lever, the serrated end of the plate K may be employed for the purpose of engaging the end of a board to hold the same while being planed or otherwise worked upon.

What I claim to be new is:—

1. A bench stop comprising a bench plate having an integral bushing adapted to engage a hole in a bench, a clamping plate having a hollow split boss engaging said bushing, an expanding plug mounted within said split boss, means for moving said plug to expand the boss against the bushing to hold the plates in adjustable relation, and a pivotal clamping lever mounted upon said bench plate.

2. A bench stop comprising a bench plate having an integral bushing adapted to engage a hole in a bench, a clamping plate having a hollow split boss engaging said bushing, an expanding plug mounted within said split boss, means for moving said plug to expand the boss against the bushing to hold the plates in adjustable relation, said bench plate having a laterally projecting arm which is perforated, a clamping lever having a pin projecting therefrom engaging one of said perforations and designed to cooperate with the clamping plate to hold a piece of timber.

3. A bench stop comprising a bench plate having an integral bushing adapted to engage a hole in a bench, a clamping plate having a hollow split boss engaging said bushing, an expanding plug mounted within said split boss, means for moving said plug to expand the boss against the bushing to hold the plates in adjustable relation, said bench plate having a laterally projecting arm which is perforated, a clamping lever having a pin projecting therefrom engaging one of said perforations and designed to cooperate with the clamping plate to hold a piece of timber, and means for guiding said bench plate as it is moved into different adjusted positions.

4. A bench stop comprising a bench plate having an integral bushing adapted to engage a hole in a bench, a clamping plate having a hollow split boss engaging said bushing, an expanding plug mounted within said split boss, means for moving said plug to expand the boss against the bushing to hold the plates in adjustable relation, said bench plate having a laterally projecting arm which is perforated, a clamping lever having a pin projecting therefrom engaging one of said perforations and designed to cooperate with the clamping plate to hold a piece of timber.

5. In combination with a bench plate having an integral bushing and a lateral apertured extension, a clamping plate with hollow split boss engaging said bushing, said bench plate having apertures therein, integral pins projecting from said clamping plate and engaging said apertures, a plug movable in said split boss and having diametrically disposed expanding ribs engaging slots in the boss, means for moving said plug within the latter, a pivotal clamping lever, and a pin projecting therefrom and engaging the apertures in said extension of the bench plate.

6. In combination with a bench plate having an integral bushing and a lateral apertured extension, a clamping plate with hollow split boss engaging said bushing, said bench plate having apertures therein, integral pins projecting from said clamping plate and engaging said apertures, a plug movable in said split boss and having diametrically disposed expanding ribs engaging slots in the boss, a screw passing through an aperture in said clamping plate engaging the aperture in the plug, a curved clamping lever, a pin projecting from the latter and pivotally mounted in one of the apertures of said extension.

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

ALBERT G. MERKELL.

Witnesses:
H. B. TIFFANY,
F. E. CRAIG.