

No. 636,661.

Patented Nov. 7, 1899.

W. J. L. GUEST.

WISE.

(Application filed July 22, 1899.)

(No Model.)

Fig. 1.

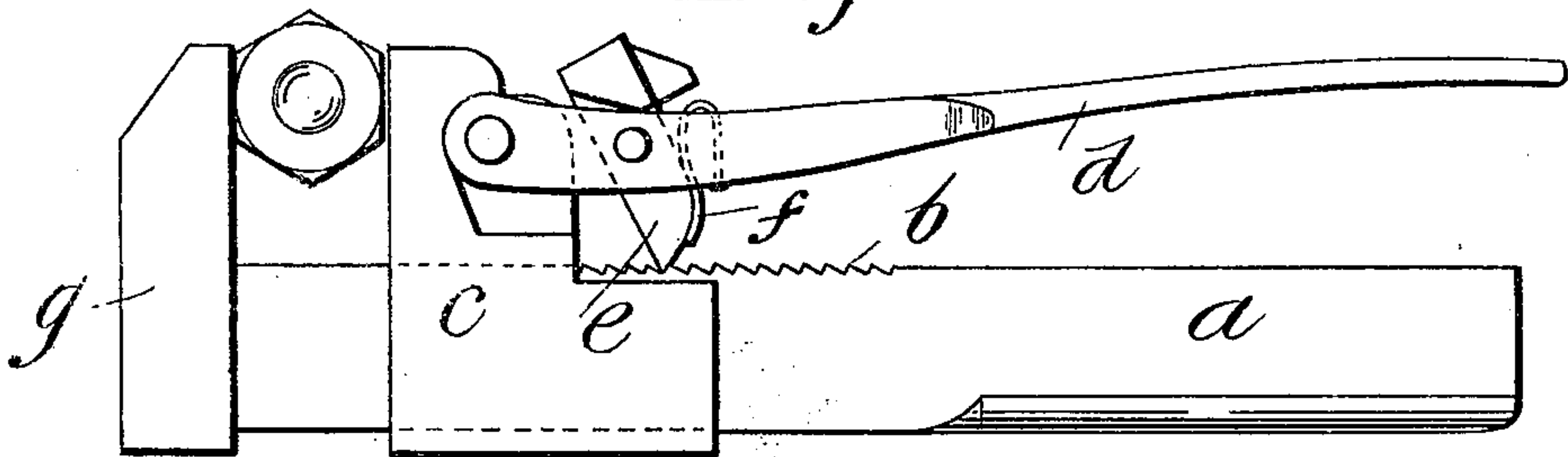


Fig. 2.

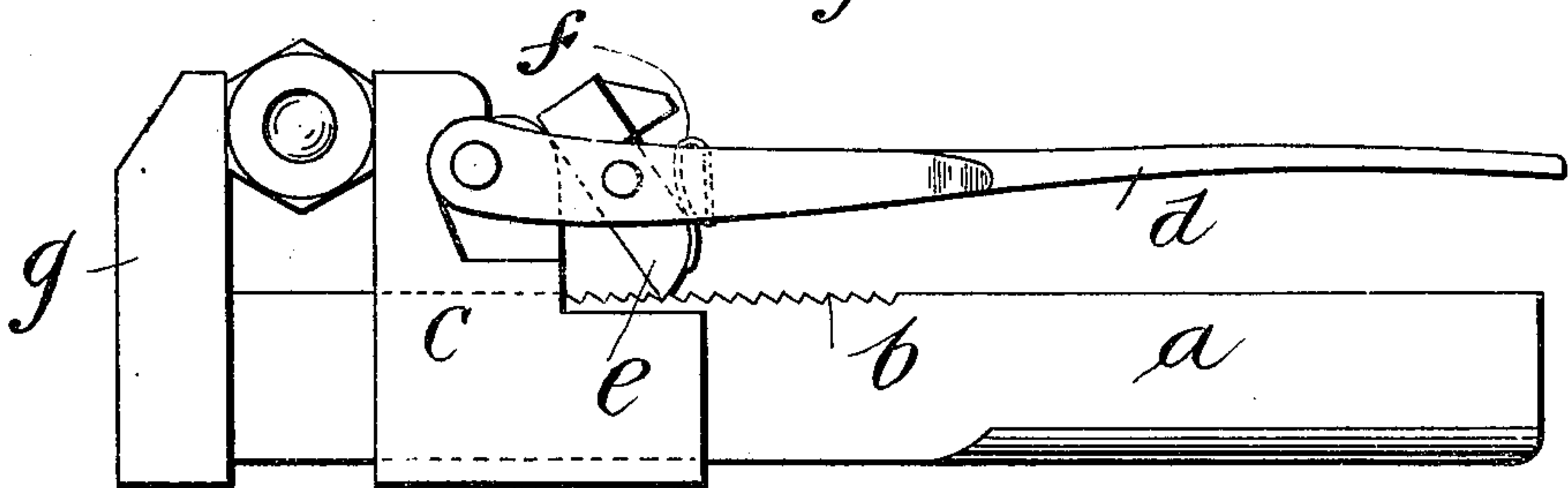
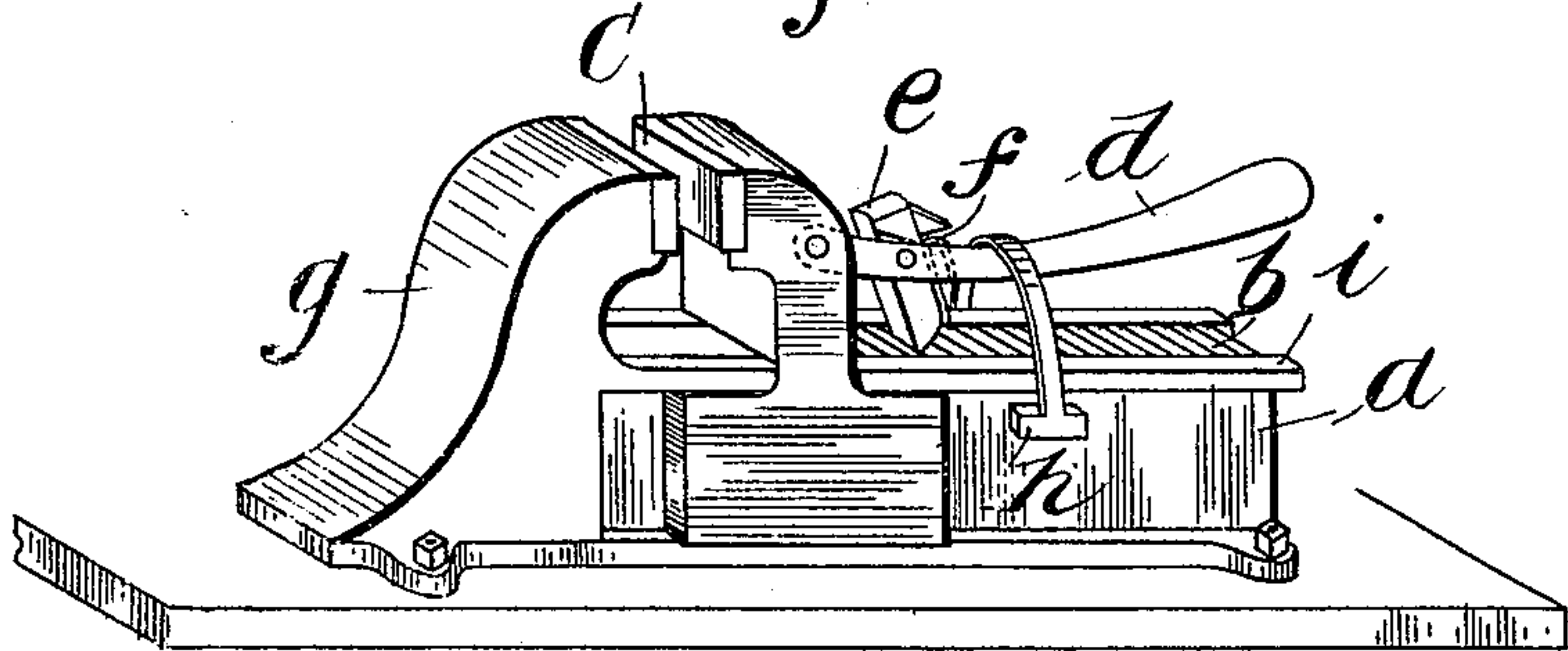


Fig. 3.



Witnesses

F. B. Keeler  
Lee Holmes.

Inventor

Walter J. L. Guest  
by  
James L. Norris  
att'y

# UNITED STATES PATENT OFFICE.

WALTER JOSEPH LEES GUEST, OF ALPHINGTON, VICTORIA.

## VICE.

SPECIFICATION forming part of Letters Patent No. 636,661, dated November 7, 1899.

Application filed July 22, 1899. Serial No. 724,854. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER JOSEPH LEES GUEST, clerk, a subject of the Queen of Great Britain, residing at "Braeside," Como street, Alphington, near Melbourne, in the British Colony of Victoria, have invented an Improvement in Spanners, Vises, Pipe-Wrenches, and Similar Tools Having Adjustable Jaws, (for which I applied for a patent in Victoria on the 17th day of April, 1899, No. 16,060,) of which the following is a specification.

This invention relates to that class of tools—such as spanners, vises, and pipe-wrenches—which have adjustable jaws; and its object is to provide a tool of this description which can be adjusted quickly and will be more convenient in use than the ordinary screw-operated tools.

According to my invention I make the body, beam, or base of the tool with serrations or file-like teeth, which are preferably formed beneath the level of its upper surface, and I arrange the movable jaw so that it slides along said body, beam, or base in the ordinary manner. Near the upper end and at the back of the movable jaw is pivotally supported a lever carrying a pawl the lower end of which is formed to correspond with the upper surface of the body, beam, or base, and may be serrated on its lower end to correspond with the serrations or teeth on said body.

In order that my invention may be clearly understood, I will describe it by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of an adjustable spanner or screw-hammer in position when about to grip, constructed according to this invention, while Fig. 2 is a similar view to Fig. 1, showing position of parts when the object is firmly gripped. Fig. 3 is a perspective view of a bench-vise embodying my improvements.

The same letters of reference indicate the same or corresponding parts in all the figures.

*a* represents the body, base, or beam of the tool, and *b* the serrations, which are formed transversely along the upper surface thereof, while *c* represents the movable jaw, which slides along said body, and *d* the lever, which is pivoted to the back of said movable jaw and which carries a pawl *e*, arranged to en-

gage with the serrations or teeth *b* on the body *a*, a spring *f* being used to normally keep said pawl in engagement with said serrations or teeth. These latter may be formed below the level of the upper surface of the body of the tool, as illustrated in Fig. 3, in which case they will not be liable to contact with the article which is being gripped between the jaws.

The lever *d* is slotted intermediate its ends, and the pawl *e* is pivoted in said slotted portion, as shown. Between the rear wall of the slot and the pawl is disposed a bent spring *f*, the free end of which bears against the lower end of the pawl and holds the latter in engagement with the teeth *b*. When the lever *d* is pressed down, it causes the pawl *e* to jam against the serrations *b* along the upper surface of the body *a*, and thus secures the movable jaw in position and at the same time forces said jaw forward slightly, so as to provide a positive grip, and also serves as a brace for the upper edge of said jaw, which is thereby enabled to better withstand the pressure to which it is subjected. This positive grip is produced because of the toggle-link motion of the lever and pawl, the effect being that these two parts will be more nearly in a straight line when the lever is forced down, and thus the movable jaw will be forced forward with very considerable pressure.

If preferred, a clip *h* may be arranged to slide along the body and engage with flanges *i* along the upper edge thereof, as illustrated in Fig. 3, so that when moved over the lowest part of the lever *d* the latter can be raised; but when slid toward the highest part of said lever the latter will be locked, and the movable jaw will therefore likewise be locked in position.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a tool of the character described, the combination with a fixed jaw having a toothed shank, of a movable jaw arranged to slide on said shank, a lever pivoted at one end to the movable jaw, a pawl pivoted in a slot in said lever intermediate the ends of the latter, and a spring disposed in said slot between the rear wall of the latter and the pawl and



operating to throw the pawl into engagement with the teeth on the shank, substantially as described.

2. In a tool of the character described, the  
5 combination with a fixed jaw having a toothed shank, of a movable jaw arranged to slide on the shank, a lever pivoted at one end to the movable jaw, a pawl pivoted to said lever, a spring operating to throw the pawl into en-

gagement with the teeth on the shank, and a 10 clip movably connected with the shank and passing over the lever to lock the lever and movable jaw, substantially as described.

WALTER JOSEPH LEES GUEST.

Witnesses:

EDWARD WATERS,

EDWARD WATERS, Junr.