

W. H. CLITES.
METAL SHEARS.
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900,983.

Patented Oct. 13, 1908.

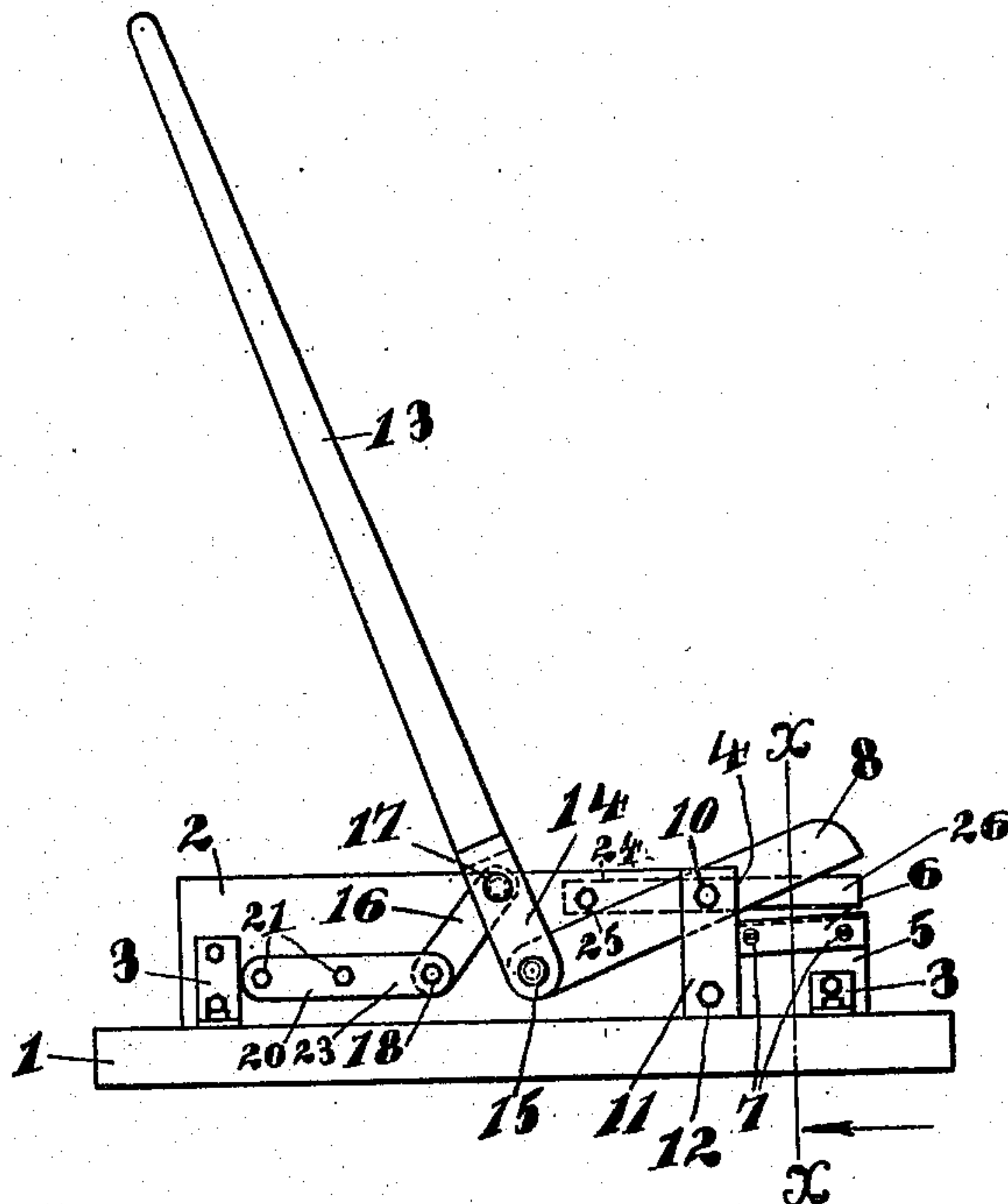


Fig. 1.

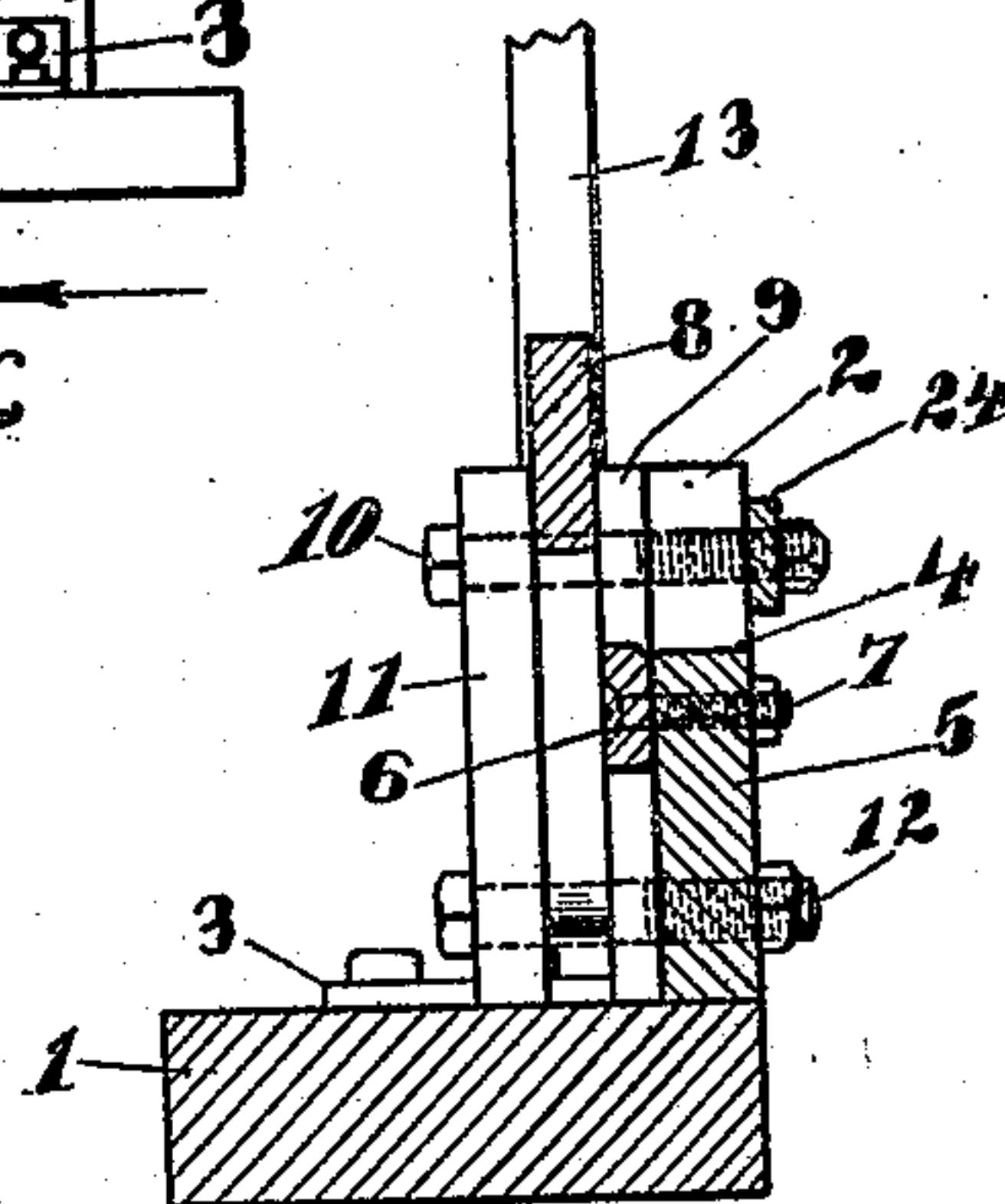


Fig. 3.

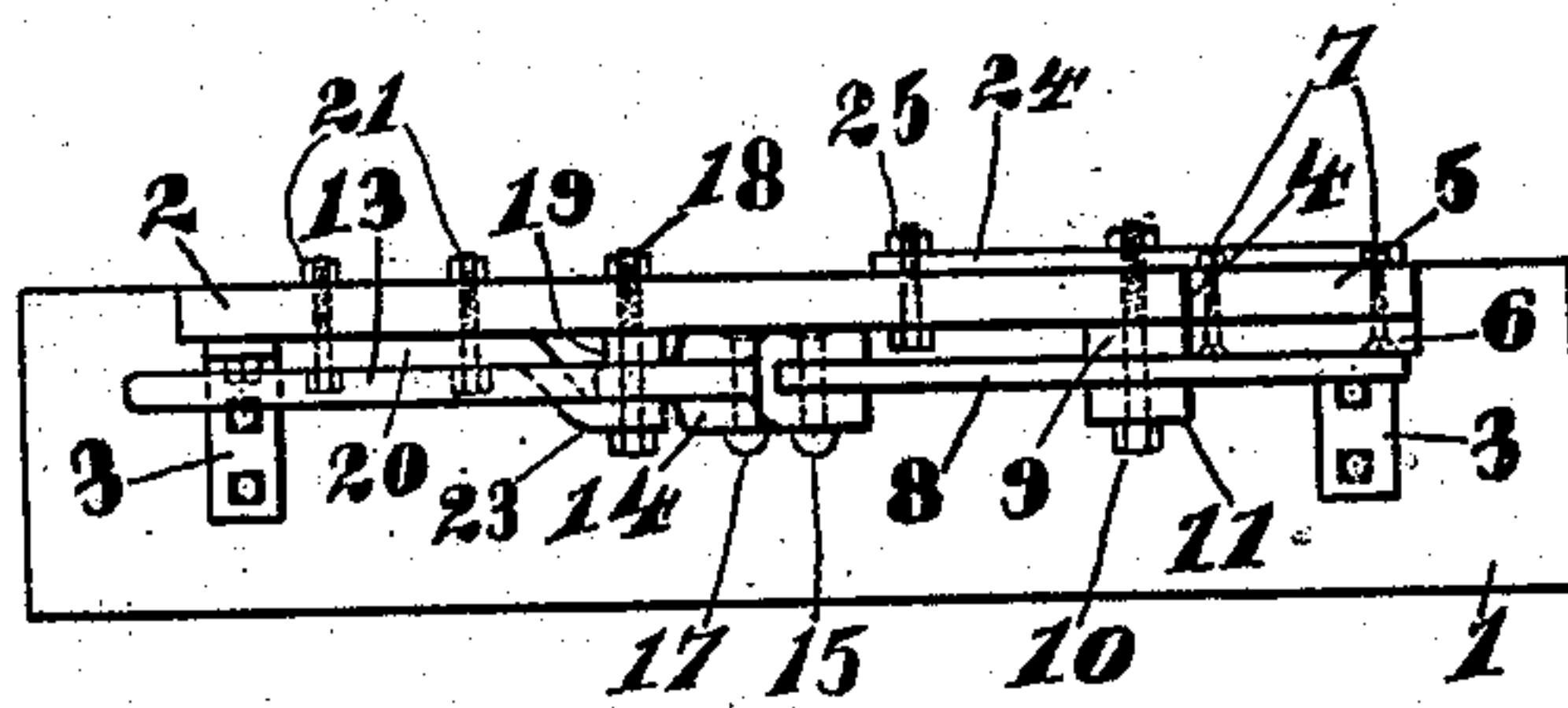


Fig. 2.

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UNITED STATES PATENT OFFICE.

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METAL-SHEARS.

No. 900,983.

Specification of Letters Patent.

Patented Oct. 13, 1908.

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To all whom it may concern:

Be it known that I, WALTER H. CLITES, a citizen of the United States, residing at Emerson, county of Mills, and State of Iowa, have invented certain new and useful Improvements in Metal-Shears of which the following is a specification.

My invention relates to metal shears and particularly to metal shears especially adapted for the use of blacksmiths.

The object of my invention is to provide a metal shear of the class mentioned which shall be of simple construction and of great power.

A further object of my invention is to provide a device as mentioned, of such construction and arrangement as to prevent the metal from readily slipping from between the blades.

Other objects will appear hereinafter.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a side elevation of a metal shear embodying my invention in its preferred form, Fig. 2 is a plan view thereof and Fig. 3 is a vertical section on the line $x-x$ of Fig. 1 upon an enlarged scale.

Referring to the drawings, 1 indicates the base plate of the device which may be of wood or metal, the former being preferred, and 2 the frame which is formed of a flat iron plate. The frame or plate 2 is arranged vertically upon one edge of the base and is secured thereto by the angles or brackets 3—3 which are bolted or riveted to both the base and the frame. The upper corner of the plate 2 at one end is cut away as at 4 forming the extension 5 which is of less height than the rest of the plate. Secured to the upper edge of the portion 5 and upon one side thereof is a stationary blade 6 which is held firmly in position by a pair of bolts 7, the heads of which are preferably countersunk.

8 indicates the movable blade. This is formed of a single strip of tool-steel, preferably straight, and is of uniform rectangular cross section throughout its length. The blade is pivotally mounted on a bolt 10 between the plate 2 and a guide strip 11, the guide strip being secured to the plate by the

bolts 10 and 12 and a block or washer 9 of a thickness equal to that of the blade 6 is interposed between the blade and the plate 2.

13 indicates the operating handle which comprises a long lever having a bifurcated lower end 14, between the ends of the tangs to which the end of the blade bar 8 is pivotally connected by a rivet 15. The arm or lever 13 is fulcrumed upon the free end of a link 16 by a rivet 17, the free end of the link being arranged between the tangs 14 above the rivet 15. The lower end of the link 16 is pivoted to the plate 2 by a bolt or rivet 18, a block or washer 19 being interposed between the end of the link and the plate to bring the former into proper alinement with the handle or lever.

20 indicates a bar bolted to the plate 2 by bolts 21 and having its end bent out as at 23 over the end of the link 16, the bolt 18 passing therethrough.

It should be noted that the blade 6 is arranged upon the frame at a slight angle, that is its outer end is slightly raised. This, in a great measure prevents the work from slipping from between the blades. It should also be noted that the pivot 10 of the blade is near the upper edge of the frame whereas the pivot 18 is near the bottom thereof, by which construction, a tool of great power but of comparatively small size may be had. 24 indicates a bar secured to the outer face of the plate 2 by the pivot bolt 10 and a bolt 25 and extending beyond the portion 4 and substantially parallel with the blade 6. The projecting end 26 of the bar prevents small rods which are being cut from bending up.

The device is of simple construction all of the parts being formed of castings or plates with the exception of the blades and none of the parts require tooling.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:

A metal shear comprising a flat horizontal base and a vertically disposed flat frame plate secured thereto, in combination with a stationary blade bolted to one side of said plate, a straight blade bar pivotally mounted upon the same side of said plate, a washer of equal thickness with said stationary blade

interposed between said straight blade and
said plate, a lever having a bifurcated end
pivotaly connected to the end of said blade
bar, and a fulcrum link pivotaly connected
5 to said frame plate and to said lever, sub-
stantially as described.

In testimony whereof I have signed my

name to this specification in the presence of
two subscribing witnesses.

WALTER H. CLITES.

Witnesses:

A. D. SOWERS,
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