

(No Model.)

C. S. HILL.
BOLT CUTTER.

No. 543,649.

Patented July 30, 1895.

FIG. 1.

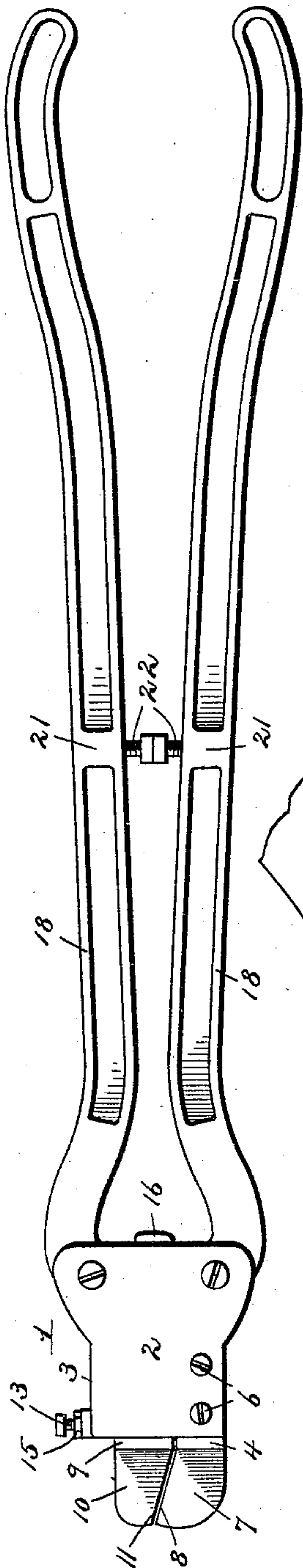


FIG. 3.

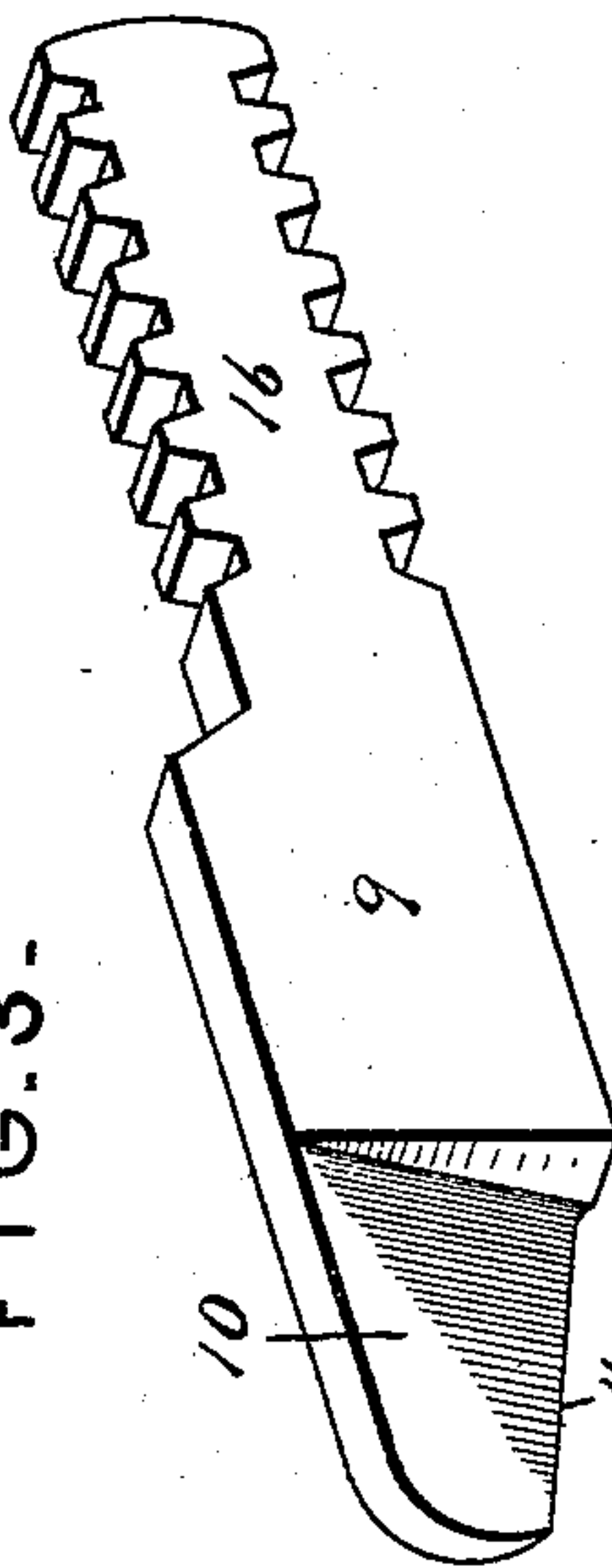


FIG. 4.

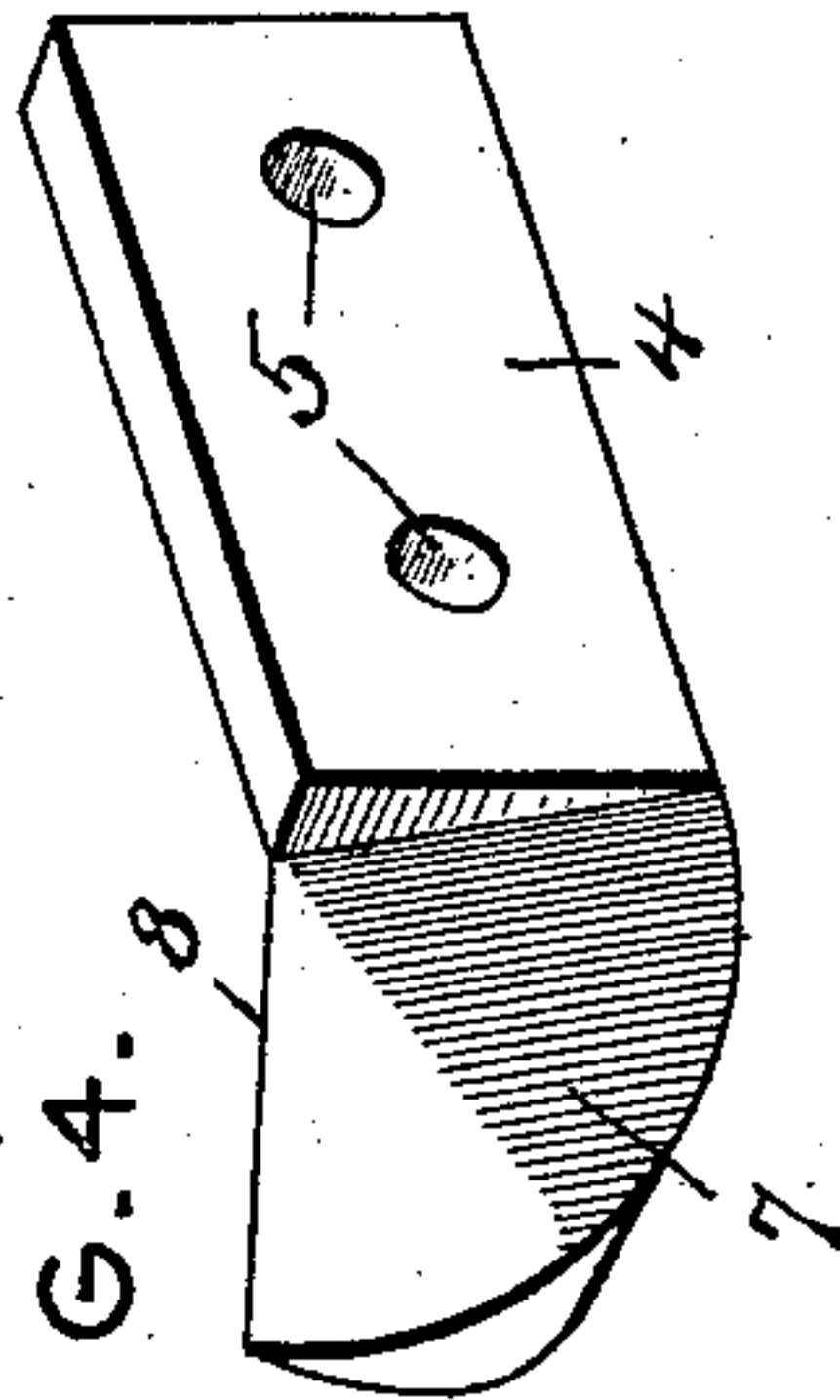
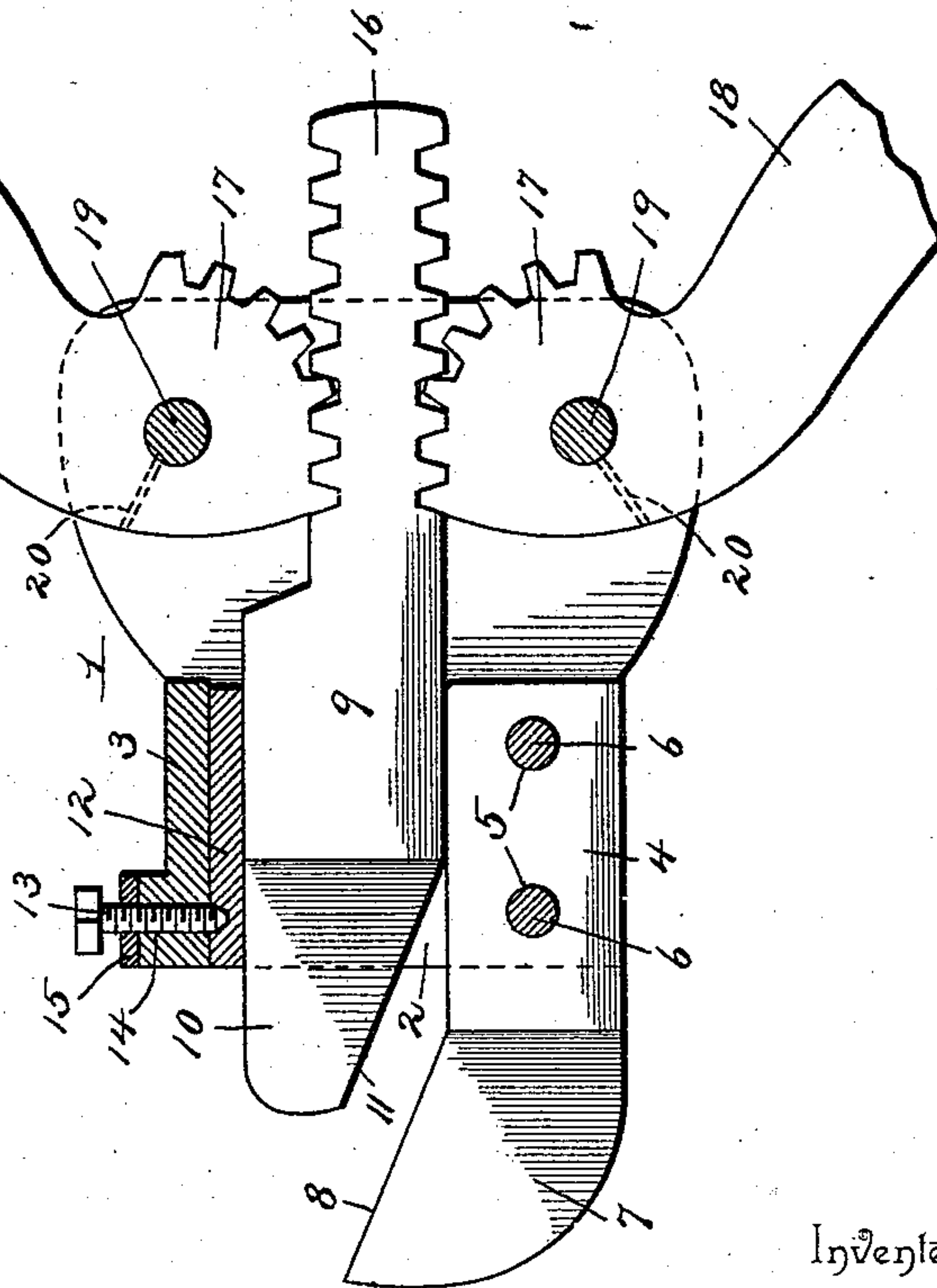


FIG. 2.



Inventor

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Witnesses

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By His Attorneys.

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UNITED STATES PATENT OFFICE.

CYRUS SUMNER HILL, OF ROCHESTER, NEW HAMPSHIRE.

BOLT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 548,649, dated July 30, 1895.

Application filed August 7, 1894. Serial No. 519,663. (No model.)

To all whom it may concern:

Be it known that I, CYRUS SUMNER HILL, a citizen of the United States, residing at Rochester, in the county of Strafford and State of New Hampshire, have invented a new and useful Bolt Clipper or Cutter, of which the following is a specification.

This invention relates to bolt-clippers; and it has for its object to provide a tool of this character that shall possess simple and efficient means for exerting a powerful cut on the bolt or rod operated upon, while at the same time being comparatively simple in construction and operation.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a pair of bolt-clippers constructed in accordance with this invention. Fig. 2 is a central longitudinal sectional view thereof, showing the cutter-jaws open. Fig. 3 is a detail in perspective of the sliding cutter-jaw. Fig. 4 is a similar view of the stationary or fixed cutter-jaw.

Referring to the accompanying drawings, 1 designates a bifurcated tool-head essentially comprising the parallel head-plates 2, connected at one edge by the intermediate bridge-piece 3. The said bifurcated tool-head 1 has removably clamped therein between the plates 2 the stationary or fixed cutter-jaw 4. The said stationary or fixed cutter-jaw 4 is made of a suitable length of cast-steel and is provided with the bolt openings or holes 5 to receive the bolts 6 that removably secure the jaw within the head.

The stationary or fixed cutter-jaw 4 is formed at one end into the beveled blade 7 that is projected beyond one end of the tool-head, and is provided with a sharpened cutting-edge 8 that is disposed at an angle or inclination to the longitudinal center of the tool-head and mounted to slide on the stationary or fixed cutter-jaw 4 between the same and the intermediate bridge-piece 3 of the tool-head is the sliding cutter-jaw 9. The sliding cutter-jaw 9 is also made of cast-steel and is provided at that end which works in

opposition to the blade 7 of the jaw 4 with the beveled cutter-blade 10 that is reversely beveled to the blade 7, and is provided with an inclined cutting-edge 11 that is formed parallel with the cutting-edge 8 of the stationary or fixed jaw, so that as the jaw 9 is slid back and forth it will be obvious that the relation of the cutting-edges 8 and 11 will produce a "draw-cut," which provide for the severance of a bolt or rod much more quickly and with less injury to the tool than a "direct" cut. The sliding cutter-jaw 9 is maintained close against the stationary or fixed cutter-jaw and the wear thereof also compensated for by means of the steel washer-plate 12 that is interposed between one side of the sliding jaw and the intermediate bridge-piece 3 of the tool-head, and a set-screw 13 is mounted in a threaded opening 14 in said bridge-piece and impinges on the washer-plate 12 to hold the same against the said sliding jaw to take up the wear and also to hold the same steady, and a jam-nut 15 working on the screw 13 locks the same in its adjusted position.

The sliding cutter-jaw 9 has projected from the inner end thereof the double rack-bar 16, with the teeth on both sides of which mesh the pinion segments 17 formed on the inner ends of the operating-levers 18. The said operating-levers 18 are removably and pivotally mounted within the tool-head 1 at their inner ends on the pivot-bolts 19, and in their pivoted ends the said levers are provided with the oil-holes 20 which lead to the bolts 19, so that the bearings of said levers may be lubricated from time to time.

The operating-levers 18 are of any desired length and at a point intermediate of their ends are provided with the threaded sockets or openings 21 that receive the adjustable set-screws 22, which are directly opposed to each other, and when the levers are closed are adapted to contact to limit the inward motion of the levers and therefore the outward movement of the sliding cutter-jaw, which may be regulated by adjusting the said screws.

From the above the operation and advantages of the herein-described bolt-clippers will be readily apparent to those skilled in the art, and it will be understood that changes in the form, proportion, and the minor details of construction may be resorted to without depart-

ing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a bolt clipper, a bifurcated tool head consisting of parallel head plates and an integral bridge piece connecting said parallel plates at one edge, a stationary cutter jaw fitted between the parallel plates of the tool head and provided at one end with a beveled blade having an inclined cutting edge, bolts removably fastening the stationary cutter jaw within the tool head, a sliding cutter jaw mounted to slide on the stationary cutter jaw between the latter and the bridge piece of the tool head, said sliding jaw being provided at one end with an integral blade beveled reversely to the blade of the stationary jaw and having an inclined cutting edge opposed to and parallel with the cutting edge of said stationary jaw, means for taking up the wear of the sliding cutter jaw, and means for sliding

said sliding cutter jaw within the tool head, substantially as set forth.

2. In a bolt clipper, a bifurcated tool head, a stationary cutter jaw removably held within said head and provided at one end with a cutting blade, a sliding cutter jaw working within said head and provided at one end with a blade opposed to that of the stationary jaw, a washer plate interposed between the sliding jaw and one side of the tool head, a set screw mounted in the tool head and working against said washer plate, and operating levers pivotally mounted at one end in said tool head and connected with said sliding jaw, substantially as set forth.

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

CYRUS SUMNER HILL.

Witnesses:

EDGAR M. CATE,
CHAS. W. BROWN.