To all whom it may concern:

Be it known that I, Robert T. Connelly, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented and useful Improvements in Angle-Bar Cutters, of which the following is a specification.

This invention relates to a cutting machine, and more particularly to what I term an angle bar cutter.

One of the main objects of the invention is to provide a machine of simple construction and operation which is operated by hand and is capable of quickly and efficiently cutting angle bars. A further object is to provide a machine of the character stated of simple construction and operation which may be readily produced at comparatively small cost. Further objects will appear from the detailed description.

In the drawings:

Figure 1 is a front view of the machine with the cover plate removed;

Figure 2 is a central vertical section through the machine;

Figure 3 is a front view of the machine;

Figure 4 is a section through one of the cutters and the guide means therefor.

The machine includes a base 1 provided about its upper portion with a forwarly projecting peripheral flange 2. The base is further provided, at its lower end, with a rearwardly extending flange 3 by means of which the machine can be secured to a suitable support. The upper portion of base plate 1 is covered by a front plate 4 which is secured by machine screws 5, or in any other suitable or preferred manner, to flange 2 which is provided with lugs 6 for this purpose. A stub-shaft 7 is rotatably mounted through plates 1 and 4 and is provided with a squared portion 8 projecting rearwardly of plate 1 and receiving eye 9 of an operating lever 7 which is secured in position by a screw 8 and washer 9 or in any other suitable or preferred manner. A spur pinion 10 is secured on stub-shaft 7 and meshes with a spur gear 11 secured on a stub-shaft 12 mounted through plates 1 and 2. Gear 11 meshes with a rack 13 formed on a cam 14 eccentrically secured on a stub-shaft 15 which is rotatably mounted through plates 1 and 4. Cam 14 is provided with a peripheral flange 16 of substantially U-shape. By turning lever 7 parallel rotation may be imparted to cam 14 in either direction, and relatively great force is exerted upon cam 14 through the medium of gear 11.

Plate 1 is provided through its lower portion with two rectangular openings 17 about the outer and lower portions of which extend insets 18 of hard steel. Cutting members or blades 19 are slidably mounted in angle guide brackets 20 secured to the front face of plate 1. These cutting members are formed at their lower ends to provide V-shaped points 21 the apices of which are in alignment with the angles of the respective insets 18. An arm 22 is rigidly secured to each cutting member 19 and projects above the upper end thereof, each arm being provided at its upper end with an inwardly projecting pin 23 which fits inside of flange 16. This flange is so formed that when cam 14 is turned in one direction one of the cutting members will be raised and the other cutting member will be forced downwardly across the corresponding opening 17 by the pressure of flange 16 on the upper end of this cutting member. By this arrangement when the lever is turned in one direction one of the cutting members is moved across an opening 17, and by turning the lever in the other direction the other cutting member is forced across the other opening, the first cutting member being raised.

A bar 24 is carried by plate 1 in parallel spaced relation to the back of the plate and a block 25 is slidably mounted on this bar. A clamping screw 26 is threaded through the block and is provided at its lower end with a loosely connected foot 27 which co-acts with a flange 28 projecting rearwardly from plate 1 for clamping a length of angle iron inserted through either of the openings 17. The upper face of flange 28 being in the plane of the lower edge of openings 17. In practice the angle iron is inserted to the desired extent through either of the openings 17, the corresponding blade or cutting member 19 being raised, after which the lever 7 is turned so as to force the cutting member across the opening thus severing the angle iron at the desired point. The device constructed in the manner illustrated and described may be readily operated by hand and can be readily produced at small cost.

What I claim is:

1. In an angle bar cutter, a base plate having openings for reception of bars to be cut,
cutting members movable across said openings, an operating cam provided with a flange of substantially U-shape and with a rack, connections between the flange and said cutting members for moving the latter in opposite directions when the cam is turned, a gear meshing with said rack, and means for oscillating said gear.

2. In an angle bar cutter, a base plate provided with rectangular openings, a cover plate secured to the base plate in spaced relation thereto, stub-shafts mounted through said plates, cutting members movable across said openings, a cam mounted on the lowermost shaft and provided at its upper portion with a rack, operating connections between said cam and the cutting members, a gear mounted on the intermediate stub-shaft and meshing with said rack, a pinion secured on the uppermost shaft and meshing with said gear, said uppermost shaft projecting beyond the base plate and the pinion and gear and cam being positioned between the plates, and an operating lever secured on said uppermost shaft.

In testimony whereof I affix my signature.

ROBERT T. CONNELLY.