

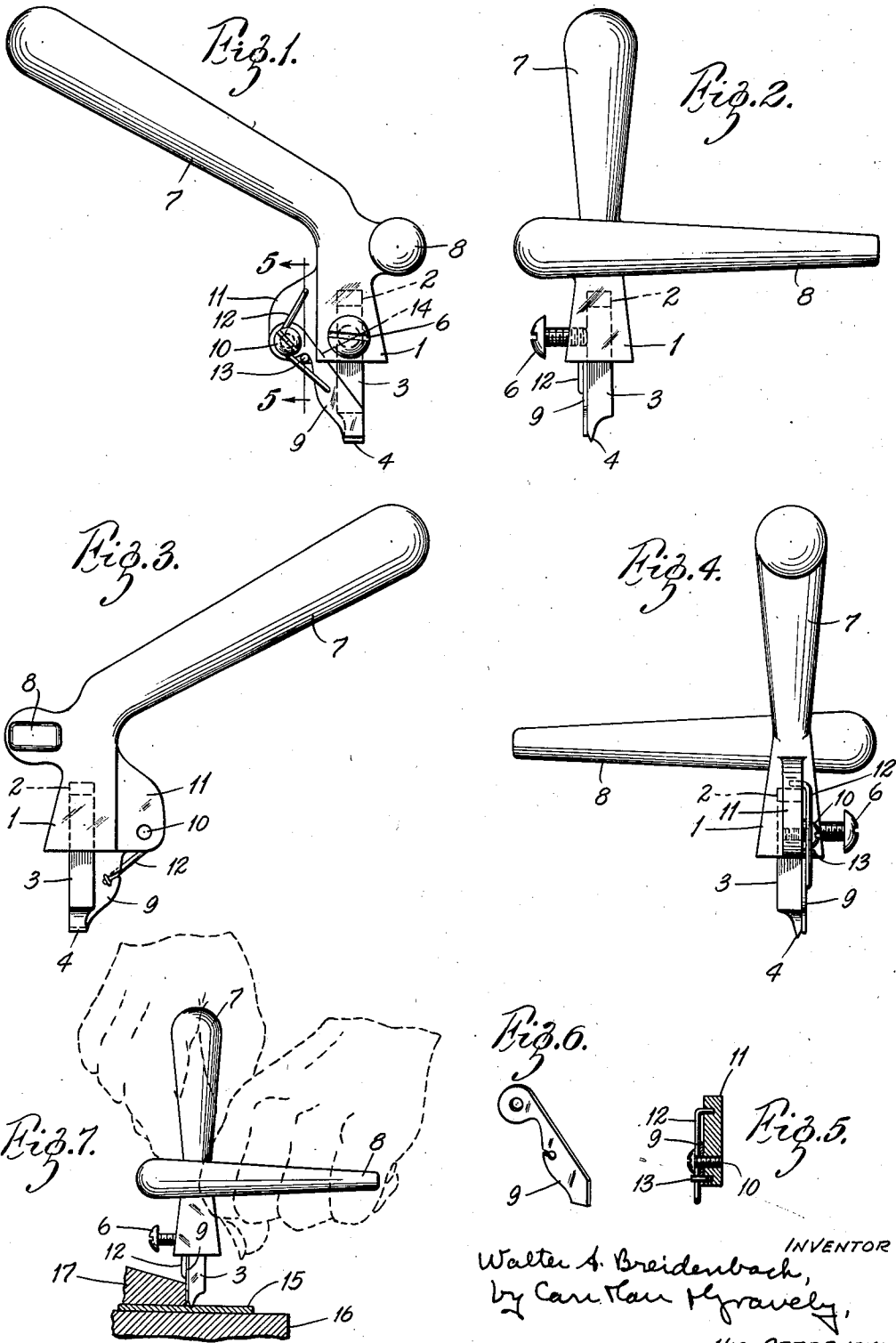
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CUTTING TOOL

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CUTTING TOOL

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4 Claims. (Cl. 30—286)

This invention relates to cutting tools, particularly hand tools for cutting or scoring sheet metal. The invention has for its principal objects to provide a simple and easily operable light weight tool having two handles, one for drawing the tool over the work and the other for pressing the tool against the work, to provide a guard for the cutting edge of the tool, and to enable said guard to swing clear of said cutting edge when the tool is applied to the work and to resume its normal, guard position when the tool is disengaged from said work. The invention consists in the cutting tool and in the construction, combinations and arrangements of parts hereinafter described and claimed.

In the accompanying drawing, which forms part of this specification and wherein like symbols refer to like parts wherever they occur,

Fig. 1 is a side elevation of the guard plate side of a cutting tool embodying my invention,

Fig. 2 is a front elevation thereof,

Fig. 3 is a view similar to Fig. 1, looking at the opposite side of the tool,

Fig. 4 is a rear elevation of the tool,

Fig. 5 is a fragmentary section on the line 5—5 of Fig. 1,

Fig. 6 is a perspective view of the guard plate for the cutter; and

Fig. 7 is a front elevation, showing the tool positioned alongside of a straight edge with its cutting edge in engagement with the work, the position of the operator's hands being shown in dotted lines.

My cutting tool comprises a body or holder portion 1 provided at one end with a socket 2 adapted to receive one end of a cutter bar 3 whose outer end is cut away along one side to form a suitable cutting edge 4 along one side edge of said bar. The cutter bar is removably held in the socket 2 of the tool preferably by means of a set screw 6, which is threaded through the holder portion 1 of said tool with its inner end in abutting relation to the cutter bar. The tool is provided with a handle portion 7, which extends rearwardly from the upper end of the holder portion 1 at an oblique angle thereto. The tool is also provided with a handle portion or bar 8 that is located on the front face of the holder portion of the tool adjacent to the upper end thereof and projects laterally from one side thereof substantially at right angles to the rearwardly extending handle 7 far enough to accommodate one hand of the operator.

The tool is provided with a guard for preventing damage to the cutting edge 4 of the cut-

ter bar 3 and for preventing said edge from injuring the operator. Said guard comprises a plate 9 that is pivoted at one end by means of a screw 10 to the side face of an outstanding lug 11 formed on the holder portion 1 of the tool below the rearwardly extending handle 7 thereof. The other or free end of the guard plate 9 is disposed alongside of the cutter bar 3 with its end flush with the cutting edge 4 of said bar. The guard plate is normally held in operative position by means of a torsion spring 12 which is coiled around the pivot screw 10 for said guard plate and has one end anchored to the lug 11 and the other end to the guard plate intermediate between the ends thereof. The spring 12 tends to swing the guard plate beyond the cutting edge 4 of the cutter bar 3; but such movement of the guard plate is prevented by means of a stop pin 13 on the lug 11 in position to be engaged by the guard plate when its outer edge is substantially flush with the cutting edge of the cutter bar. The rear lower corner of the holder portion 1 of the tool is notched, as at 14, to accommodate the adjacent portion of the guard plate and to prevent the free end portion thereof from springing away from the cutter bar.

The above described tool is particularly adapted for use in cutting or scoring a sheet 15 of metal which, as shown in Fig. 7, rests flatwise upon a suitable support 16 and has a suitable straight edge or guide member 17 located thereabove. The operator grasps the rearwardly extending handle 7 of the tool in the one hand and the laterally extending handle 8 in the other hand and presses the cutting edge of the tool down on the work with the guard plate 9 in contact with the straight edge. This pressure forces the free end of the spring-pressed guard plate to swing upwardly clear of the cutting edge 4 of the cutter bar 3. The tool is then moved by means of the handle 7 in a straight line over the work while sufficient pressure is applied to the tool to secure desired depth of cut by pressing down on the laterally extending handle 8 of the tool. During the cutting or scoring operation, the guard serves to prevent the cutter bar from engaging the straight edge and nicking or otherwise damaging the same.

What I claim is:

1. A hand tool comprising a holder portion having two handles extending therefrom substantially at right angles to each other and a socket formed in one end of said holder portion, a cutter bar removably secured in said socket and provided at its outer end with a cutting edge,

and a guard member for said cutting edge adapted to swing clear thereof when said cutting edge is pressed against the work.

2. A hand tool comprising a holder portion
5 provided at its upper end with a rearwardly extending handle and a laterally extending handle and at its lower end with a socket, a cutter bar removably secured in said socket and provided at
10 its outer end with a cutting edge, and a guard for said cutting edge adapted to swing clear thereof when said cutting edge is pressed against the work, said guard comprising a plate pivotally
15 secured at one end to said holder portion, and means for yieldably holding said plate with its outer end substantially flush with the cutting edge of said cutter bar.

3. A hand tool comprising a holder portion provided at its upper end with a rearwardly extending handle and a laterally extending handle
20 and at its lower end with a socket, a cutter bar removably secured in said socket and provided at its outer end with a cutting edge, and a guard for said cutting edge adapted to swing clear thereof when said cutting edge is pressed against the

work, said guard comprising a plate pivotally secured at one end to said holder portion, a stop on said holder portion for limiting the swinging movement of said plate beyond said cutting edge, and means for yieldably holding said plate against
5 said stop.

4. A hand tool comprising a holder portion provided at its upper end with a rearwardly extending handle and a laterally extending handle and at its lower end with a socket, a cutter bar
10 removably secured in said socket and provided at its outer end with a cutting edge, and a guard for said cutting edge adapted to swing clear thereof when said cutting edge is pressed against the work, said guard comprising a plate pivotally
15 secured at one end to said holder portion, a stop on said holder portion for limiting the swinging movement of said plate beyond said cutting edge, and means for yieldably holding said plate against said stop, said means comprising a spring
20 coiled around the pivot for said guard plate with one end fixed to said holder and with the other end fixed to said guard plate.

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