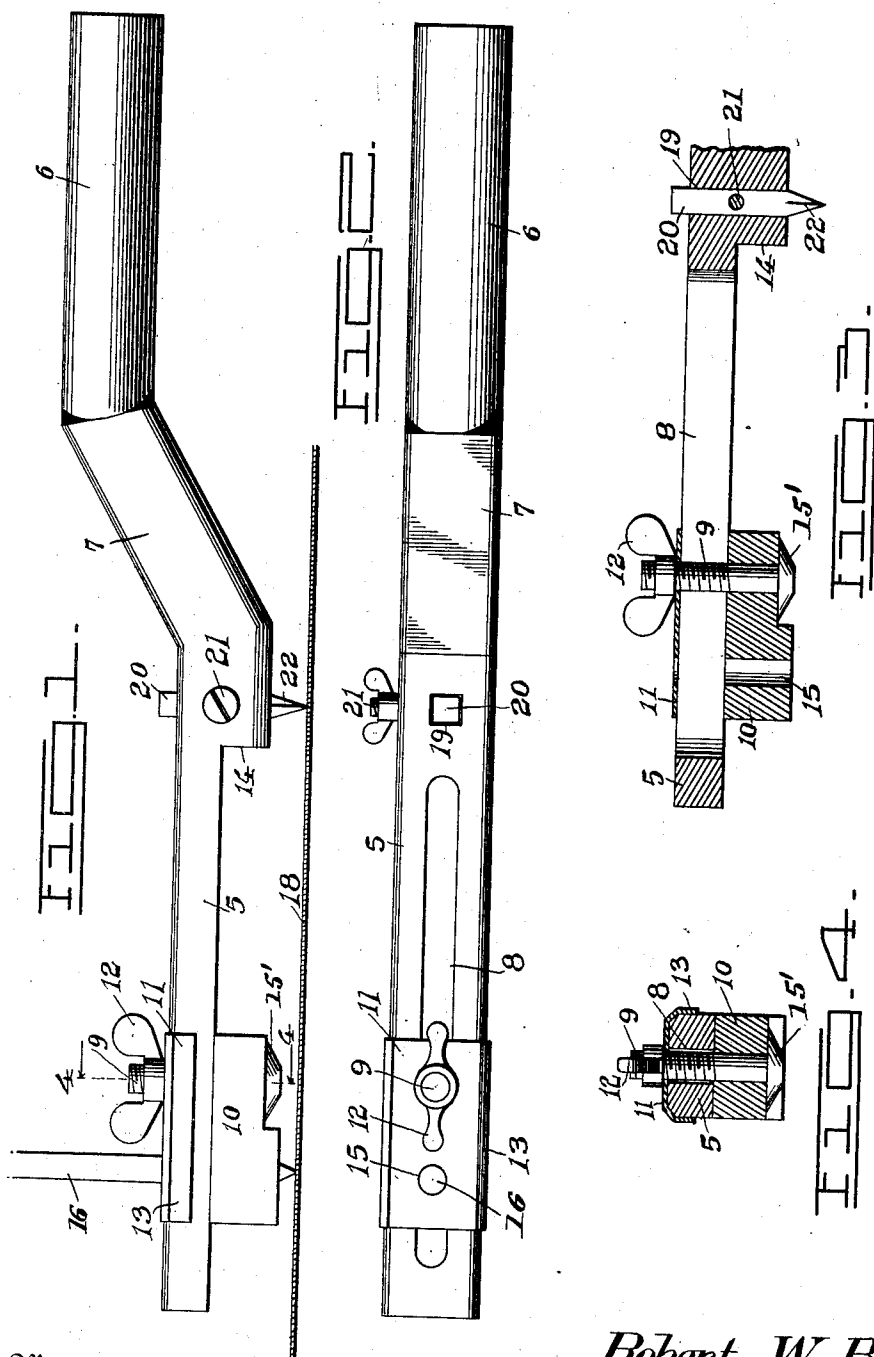


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COMBINED GAGE AND CUTTING TOOL.
APPLICATION FILED JULY 29, 1911.

Patented June 16, 1914.

1,100,666.



Witnesses
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COMBINED GAGE AND CUTTING-TOOL.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT W. BASS, a citizen of the United States, residing at St. Matthews, in the county of Calhoun and State of South Carolina, have invented new and useful Improvements in Combined Gages and Cutting-Tools, of which the following is a specification.

This invention relates to cutting tools and more especially to a combined gage and cutting tool.

The primary object of the invention is to provide a tool of simple and improved construction for cutting circular openings in sheet metal or other material.

A further object of the invention is the provision of a simple and efficient tool of this character wherein the cutting member and the centering member may be relatively adjusted for the purpose of enabling openings of various diameters to be formed.

A further object of the invention is to provide a tool wherein the cutting member is relatively stationary, the centering member being associated with a slide which may be quickly and conveniently adjusted.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawing,—Figure 1 is a side elevation of a tool constructed in accordance with the invention, the same being shown in position for cutting a piece of sheet metal. Fig. 2 is a top plan view thereof. Fig. 3 is a fragmentary vertical longitudinal sectional view through the same, the centering tool having been detached. Fig. 4 is a transverse sectional view taken on the line 4—4 in Fig. 1.

Corresponding parts in the several figures are denoted by like characters of reference.

The tool comprises an elongated gage body consisting of a flat bar 5, the same being formed integral with a handle 6 which is

offset in a plane above the plane of the body 5 through the medium of an intermediate obliquely disposed portion 7. The body 5 is provided with an elongated slot 8, the same being disposed longitudinally thereof for the passage of a bolt 9, the latter being also passed through alining apertures in a gage block or slide 10 and cap plate 11, said block or slide being disposed against the bottom face of the bar or body, while the cap plate which is composed of heavy sheet metal is disposed against the top face of the bar, the bolt 9 carrying a wing nut 12 which may be tightened against the cap plate for the purpose of locking the latter and the slide 10 in adjusted position. The cap plate 11 is provided with downturned side flanges 13 engaging the side faces of the bar, the upper corners of which are preferably beveled, as shown. The underside of the slide 10 has a recess 14' to accommodate the bolt head 15' in order that the latter will not interfere with the placing of the slide squarely upon the sheet or object to be cut. At the inner end of the body 5, and formed by the handle 6 is an abutment shoulder 14 against which the slide 10 may contact to limit the movement thereof in one direction.

The slide 10 and the cap plate 11 are provided with vertical alining openings 15 for the passage of a centering tool 16, the lower end of which is adapted to be inserted into and to engage a sheet of tin, galvanized iron or other sheet metal, whereby the tool may be held in proper position for cutting a circular hole in the metal.

Formed in the handle 6 contiguous to the shoulder 14 is a vertically disposed square opening 19 in which a cutting bit 20 is preferably secured, as by means of a cross bolt 21. The bit 20 is beveled at one end to provide a cutting edge 22 which is adapted to cut into the sheet metal when the handle is turned in a circle about the axis of the centering tool, thereby cutting the metal so as to provide a circular hole therein of the required size.

It will be seen that the slide 10 and the cap plate 11 which are connected together by the bolt 9 and which are adjustably clamped by said bolt on the body of the gage bar serves to retain, by means of the alining openings 15 in said slide and cap plate, the centering tool 16, which latter may consist of an ordinary center punch or any convenient sharp-pointed rod of proper

dimensions. Said centering tool will thus be adjustable with respect to the cutting bit, which latter is stationary with respect to the bar or body of the tool, but said centering tool may be readily detached for sharpening or other purposes being placed loosely in engagement with the slide and the cap plate.

The tool is extremely simple in its construction, and it has been found thoroughly efficient for the purposes for which it is provided.

Having thus described the invention, what is claimed as new, is:—

A device of the class described comprising a vertically slotted bar having an upwardly offset handle, a cutting tool secured adjacent

one end of the slot, a centering tool, and a slidable support for the latter comprising a slide block, and a cap plate engaging the under and upper sides of the bar, and a clamp bolt extending through said block and cap plate and having a nut; said block and cap plate being provided with alining openings for the reception of a centering tool.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT W. BASS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."