Oct. 8, 1946. M. S. CREE 2,409,019

TEMPLATE

Filed June 21, 1944 3 Sheets-Sheet 1

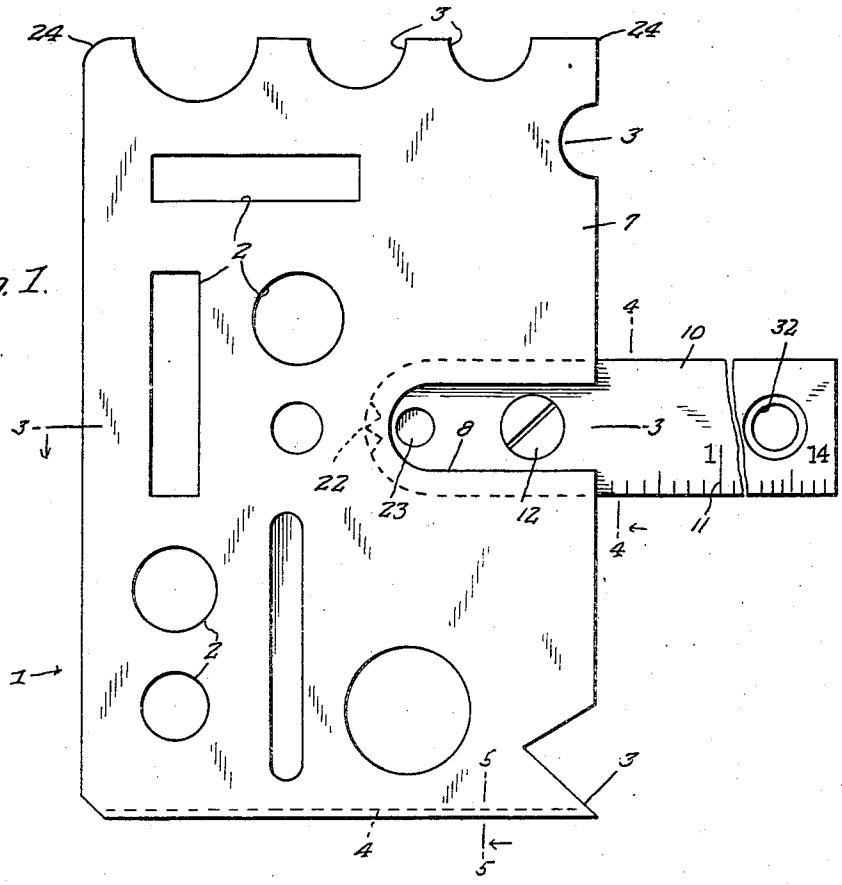


Fig. 1.

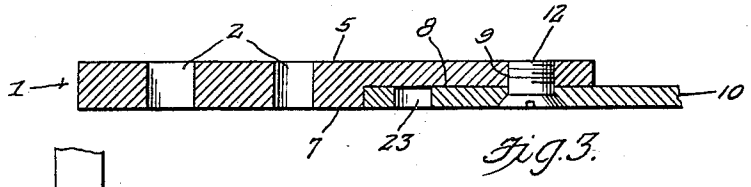


Fig. 3.

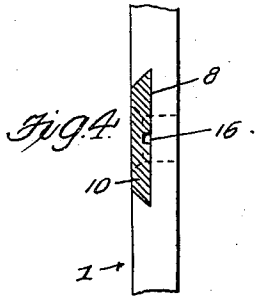


Fig. 4.

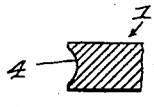


Fig. 5.

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TEMPLATE

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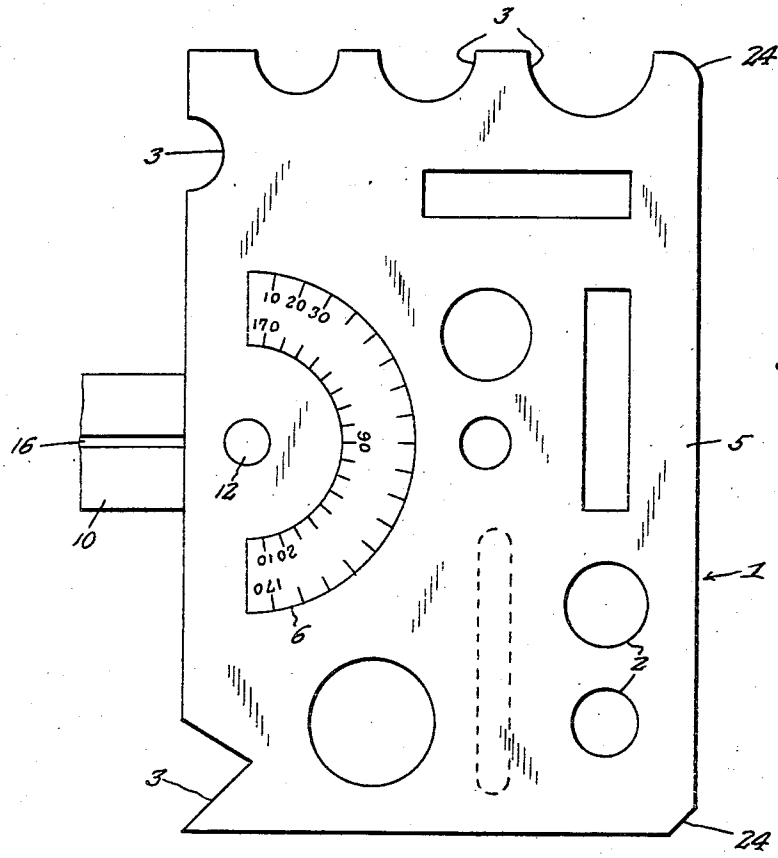


Fig. 2.

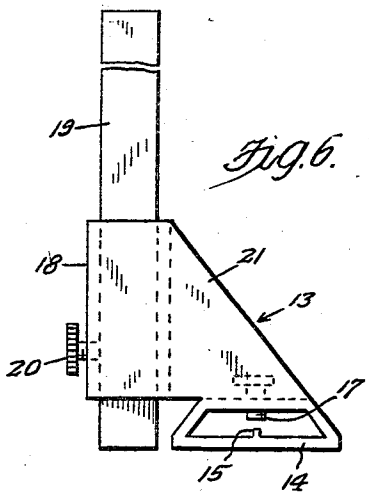


Fig. 6.

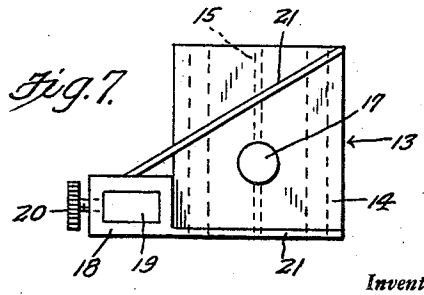


Fig. 7.

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TEMPLATE

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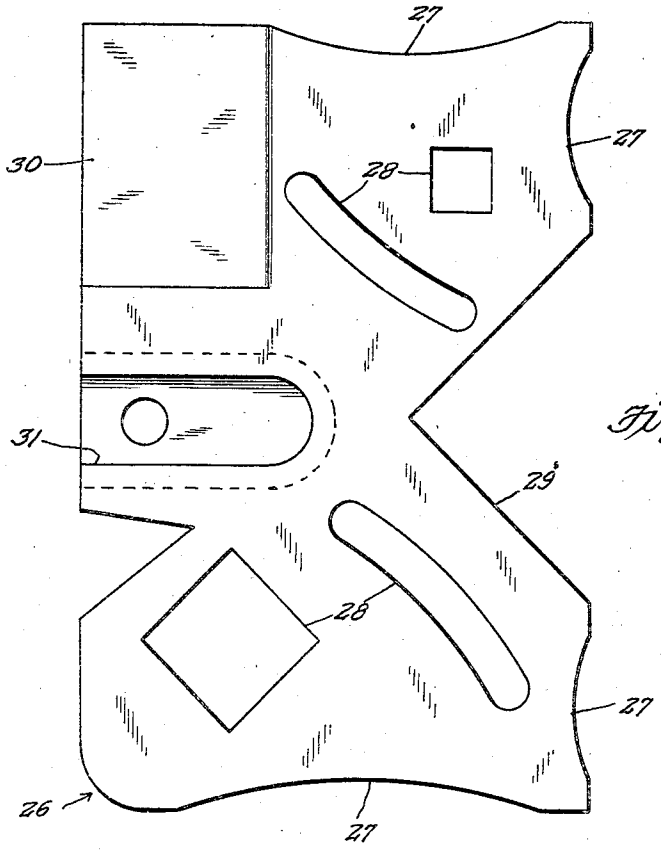


Fig. 8.

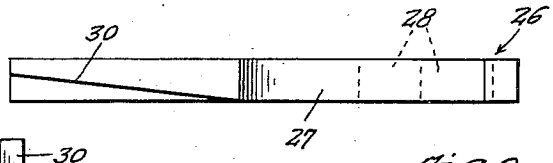


Fig. 9.

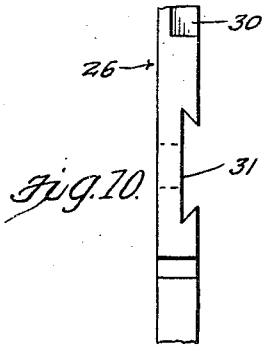


Fig. 10.

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Patented Oct. 8, 1946 2,409,019

UNITED STATES PATENT OFFICE

2,409,019

TEMPLATE

Marion S. Cree, Washington, Pa.

Application June 21, 1944, Serial No. 541,380

1 Claim. (Cl. 33—100)

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The present invention relates to new and useful improvements in templates for use particularly in the welding art, and has for its primary object to provide, in a manner as hereinafter set forth, a device of this character comprising a unique construction, combination and arrangement whereby various welding operations may be expeditiously and expertly performed by an operator or mechanic of comparatively limited experience.

Another very important object of the invention is to provide a device of the character described embodying novel means whereby various drafting operations may be rapidly performed.

Other objects of the invention are to provide a combination device of the aforementioned character which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact and which may be manufactured at low cost.

All of the foregoing, and still further objects and advantages of the invention, will become apparent from a study of the following specification, taken in connection with the accompanying drawings wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a plan view of a device constructed in accordance with the present invention.

Figure 2 is a plan view of the device, looking at the opposite side thereof.

Figure 3 is a sectional view, taken substantially on the line 3—3 of Figure 1.

Figure 4 is a sectional view, taken substantially on the line 4—4 of Figure 1.

Figure 5 is a fragmentary view in section, taken substantially on the line 5—5 of Figure 1.

Figure 6 is an elevational view of the soapstone holder, showing a bar of soapstone therein.

Figure 7 is a plan view of the soapstone holder.

Figure 8 is a plan view of a modification.

Figure 9 is an elevational view, looking at one end of the modification.

Figure 10 is an elevational view of an intermediate portion of the modification.

Referring now to the drawings in detail, it will be seen that reference character 1 designates generally a substantially rectangular plate of suitable metal, which plate may be of any desired dimensions. The plate 1 has formed therein various sizes and shapes of openings 2 constituting what may be considered chambers to facilitate the performance of certain welding operations such, for example, as forming bosses on plates, building up heads on bolts, et cetera,

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said chambers receiving and retaining the weld metal. The plate 1 is further provided, in its marginal edges, with various shapes and sizes of notches or recesses 3, also a groove or channel 4. The face 5 of the plate 1 is provided with a protractor 6.

The opposite face 7 of the plate 1 has formed therein a dovetail groove 8 extending into said plate from one of its longitudinal edges. A threaded opening 9 in the plate 1 communicates with the groove 8. The groove 8 is for the reception of an end portion of a removable blade 10 having one or more suitable scales 11 thereon. The threaded opening 9 accommodates a countersunk screw 12 which secures the blade 10 in the groove 8.

A holder 13 is adjustably and removably mounted on the blade 10. The holder 13 includes a sleeve 14 which is slidable on the blade 10. A rib 15 in the sleeve 14 is operable in a groove 16 in the blade 10. A set screw 17 secures the sleeve 14 in adjusted position on the blade 10. The holder 13 further includes a vertical tube 18 which is mounted on the sleeve 14 laterally thereof. The tube 18 is for the reception of a bar 19 of soapstone or other suitable marking material. A set screw 20 secures the soapstone 19 in adjusted position in the tube 18. The blade 10 is of a cross sectional shape corresponding to the groove 8 and the sleeve 14 corresponds to the cross sectional shape of said blade 10. Webs 21 connect the tube 18 to the sleeve 14.

The blade 10 is adapted to be pivotally mounted on the face 5 of the plate 1 to function as an indicator for the protractor 6. When this is done, the same screw 12 is used in the opening 9. The inner end portion of the blade 10 travels over the protractor 6 and is formed to provide a pointer 22. This inner end portion of the blade 10 is also provided with a sight opening 23 through which the protractor is observed when adjusting said blade.

When the device is used as a welding template, the blade 10 functions as a handle for manipulating the plate 1. Any of the marginal edges of the plate 1 may be brought into abutting engagement with the work to facilitate the making of various welds, such as forming a "shelf" on a vertical plate. The plate 1 further includes corner portions 24 of various shapes.

The plate 1 and the blade 10 are adapted to function as a square with said blade secured in the groove 8. The blade 10 may also be utilized to draw parallel lines by moving the plate 1 along a straightedge. By pivotally mounting the blade

10 on the face 5 of the plate 1, any desired angle may be had through the medium of the protractor 6. The blade 10 may be secured in adjusted position by tightening the screw 12. With the holder 13 on the blade 10 and the soapstone 19 in said holder, the device is adapted to function as a compass with said blade swinging on the plate 1. Or, the blade 10 may be removed from the plate 1 and a center punch inserted through the opening 23 to function as a pivot about which said blade may swing.

In the modification illustrated in Figures 8 to 10, inclusive, of the drawings, a plate which is particularly adapted for making welds on pipes is designated generally by reference character 26. The plate 26 has formed in certain of its edges arcuate recesses 27 for the reception of pipes of different diameters. Various sizes and shapes of openings 28 are also provided in the plate 26. A right angular recess 29 is formed in one edge of the plate 26 for the reception of angle irons. The plate 26 further includes a substantially beveled corner portion 30 for rebuilding broken-off gear teeth. A groove 31 in the plate 26, similar to the groove 8, accommodates the blade 10. The blade 10 is provided in its outer end portion with an opening 32 whereby the plates 26 and 1 may both be mounted on said blade if desired.

It is believed that the many advantages of a combination device constructed in accordance with the present invention will be readily understood, and although preferred embodiments of the device are as illustrated and described, it is to be understood that further modifications and changes in the details of construction may be resorted to which will fall within the scope of the invention as claimed.

What is claimed is:

A combination tool comprising a head having a recess opening into one side edge and an adjacent face, said head also having an internally screw threaded opening communicating with the recess, said recess extending perpendicular to the side edge of the head, a blade adapted to be received in the recess and to project from the head perpendicular to the side edge of the head containing the recess, said blade having a countersunk opening adapted to align with the screw threaded opening, a protractor scale on the face of the head opposite that containing the recess, a pointer on the blade adapted to cooperate with the protractor scale when the blade is on the unrecessed side of the head and a screw adapted to enter the countersunk opening in the blade and to engage the threaded opening in the head to hold the blade in the recess or in cooperative relation with the protractor scale according to the side of the head to which the blade is attached.

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