July 22, 1947. B. C. ROBBINS 2,424,286

BURNER CRADLE

Filed May 25, 1943

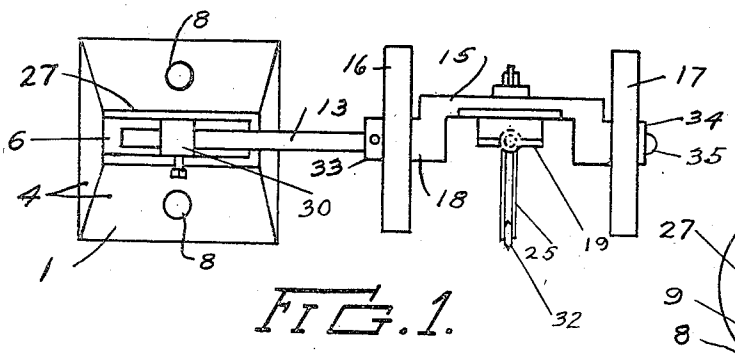


FIG. 1.

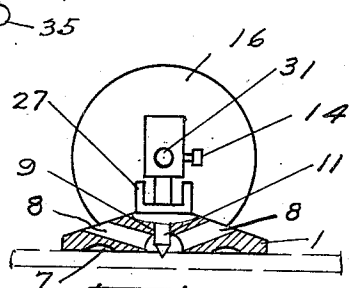


FIG. 5.

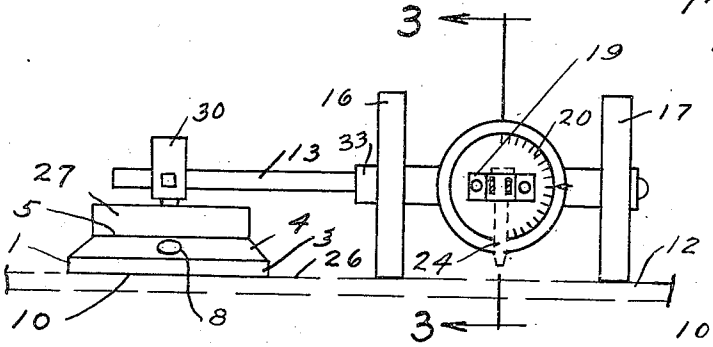


FIG. 2.

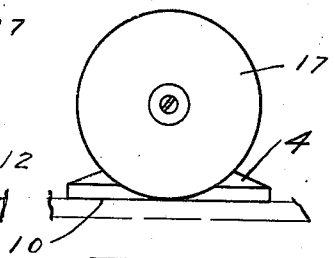


FIG. 4.

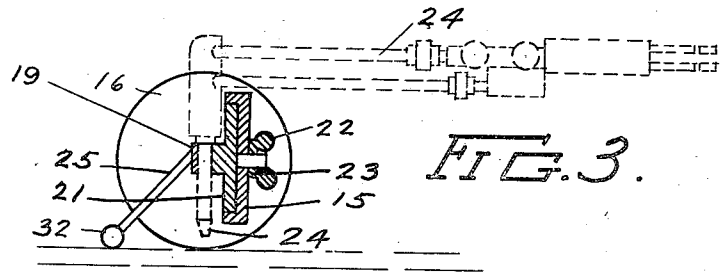


FIG. 3.

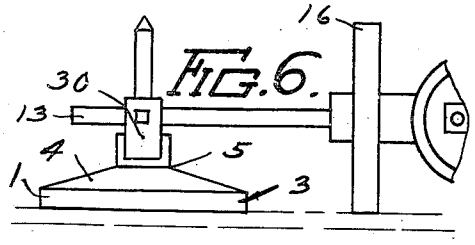


FIG. 6.

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BURNER CRADLE

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Application May 25, 1943, Serial No. 488,423

2 Claims. (Cl. 266—23)

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This invention refers to tools for welding and cutting with flames of heated gases or electric arcs and the like. More particularly, it pertains to a manipulating carriage for carrying the burner creating the flames and guiding it through predetermined courses or lines. It has among its objects to provide a carriage that will keep the burner at an active distance from the ground or surface treated by it, so its flames will not become interfered with or smothered. Another object is to have the device capable of burning round, straight or irregular contours into the material selected for the operation. A further object is to have the carriage adapted for carrying the burner at various angles in regard to the plate operated on. A still further object is to have the stand arranged for rigid attachment to the plate operated on without the use of conventional mechanical boltings; and so designed that it can be set accurately on a point selected and be kept there, in a very accessible and convenient manner.

Other objects will become apparent as the invention is more fully set forth.

In the drawings, which illustrate an embodiment of this invention:

Figure 1 is a plan view of a device embodying this invention;

Figure 2 is a side elevation of Figure 1,

Figure 3 is a section taken along line 3—3 of Figure 2.

Figure 4 is an end view showing the roller;

Figure 5 is an end view showing the base partly in section, and

Figure 6 is an end view similar to Figure 5, except the square end of the punch is placed in the slot to guide the burning torch in a straight instead of a circular line.

Similar reference characters refer to similar parts throughout the drawings.

In these drawings, a stand 1 is provided for the device in general to operate from. This stand has a flat bottom surface 10, suitable for contact with the surface 26 of the material to be operated on. It is made relatively heavy and solid so it will act in a very stable manner. The bottom section 3 is partly square and converges into a trapezoidal surface 4 whose apex portion 5 is flattened and surmounted with a slot 6. This stand is preferably made of magnetic metal so it will stick to ferrous metal surfaces on which it operates and is cupped out in a series of hemispherical recesses 7 that will provide a suction action to reduce its tendency to slide off the plate on which it is located and made-ready. This stand is also provided with slanting passages 8 that serve to

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permit inspection of the surface of the plate below the center of the stand. When a spindle prick punch 11 is inserted through a vertical central hole 9 in the stand, its point will be located at the center of the stand in the bottom surface space at 10. When the punch is located in a hole pricked underneath it in the plate 12 to be operated on, the stand will be located centrally thereon. The punch has an elongated square head 30 and is adapted to project through the body of the stand and serve as a center on which an arm 13 can swing circularly around. The punch spindle has a hole 31 for the arm 13 to slide through. This arm is made adjustable at 14 in length, so as to increase or decrease its radial swing about the center of the stand. The arm 13 is attached to a carriage 15 at the external end portion. This carriage has a pair of wheels 16 and 17 respectively positioned to run in the circles arranged for by the adjusted arm mechanism. They are held together by an axle piece 18 extending transversely between them and supporting a burner holder 19. The latter is adjustable at any suitable inclination over a range of angles 20 as indicated on the gauge plate 21. The thumb nut 22 and pressure plates 23 serves to hold the adjustment after the burner has been set in the holder. The holder holds the burner 24 straight along the diametrical line vertically marked across this plate, when in normal position. A roller 32 supported by arm 25 attached to the burner holder 19 in the gauge plate 21 is used to follow a center line on surface 26 of the material worked on to guide the burner travel and prevents the burner from getting too low and endangering its smothering out. The wheel 16 is held in place on arm 13 by collar 33, the wheel 17 is attached to the axle piece 18 by washer 34 and screw 35.

When it is desired to use the device for straight line burning its stand 1 is turned so its rails 27 will serve as a guide for the travel of the burner. The punch 11 is raised out of the hole 9 to avoid its obstruction with this travel and slides across the rails. The stand is turned bodily in the direction of travel so the burner can take the predetermined course.

The attachments to the burner or details of its conventional construction are not elaborated in the drawings or descriptions as it is appreciated that this already is well known to the art.

While but one general form of the invention is shown in the drawings, it is not desired to limit this application for patent to this particular form or in any other way otherwise than limited by

the scope thereof, as it is appreciated that other forms could be made that would use the same principles and come within the scope of the appended claims.

Having thus described the invention, what is claimed is:

1. In combination with a burner manipulating device of the class described comprising in combination a magnetic base having a passage therethrough, said passage being adapted to receive a prick punch attachment therein for marking and positioning material placed under the stand in a predetermined location, an adjustable off-set arm mounted on the base and adapted to travel in predetermined directions, a carriage with a plurality of wheels to support and prevent the carriage from turning over, a burner mounted on the carriage and arranged to be positioned at predetermined angles thereto.

2. In combination with a burner manipulating device of the class described comprising in combination a magnetic base having a passage therethrough, said passage adapted to receive a prick punch therein for marking material upon which the magnetic base is located, an off-set arm adjustably attached to said base and adapted to travel in predetermined directions, said off-set arm having an extension at one end thereof to which is slidably attached an elongated square headed prick punch for placement in said magnetic base, for rotative or aligned movement in relation to said base, a rotatable disc forming part of said off-set arm, a burner mounted on said rotatable disc and arranged to be held in predetermined locations thereto.

BENJAMIN C. ROBBINS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,931,696	Hedenstrom	Oct. 24, 1933
842,662	Heydrick	Jan. 29, 1907
1,162,587	Eimann	Nov. 30, 1915
1,317,425	Bryce	Sept. 30, 1919
1,505,106	Schroder	Aug. 19, 1924
1,176,584	Madgett	Mar. 21, 1916
1,051,547	Bucknam	Jan. 28, 1913
2,055,527	Glaum, Jr., et al.	Sept. 29, 1936
1,141,192	Klensk	June 1, 1915

FOREIGN PATENTS

Number	Country	Date
331,083	Germany	Dec. 29, 1920
254,654	England	July 8, 1926
469,577	Germany	Sept. 13, 1929
539,216	Germany	1931