May 6, 1958 C. BARBER 2,833,271

HEATER FOR TOOL HANDLES

Filed June 1, 1955

FIG. 1

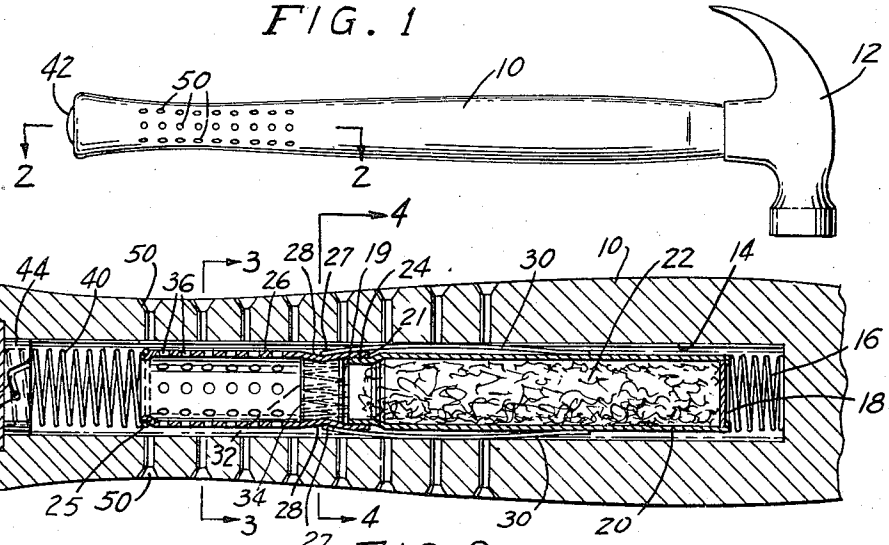

FIG. 2

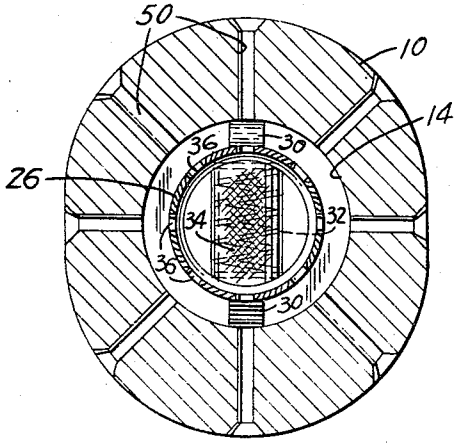

FIG. 3

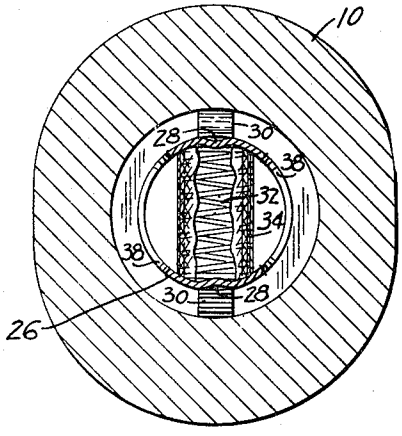

FIG. 4

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HEATER FOR TOOL HANDLES

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1 Claim. (Cl. 126—208)

This invention relates to improvements in tool handles having heating means therein of the liquid fuel burning type.

A primary object of the invention is to provide a heater as described which is relatively inexpensive to manufacture, consumes a minimum amount of fuel when in use, operates for a relatively extended length of time without refueling, is easy to assemble and disassemble, and does not interfere with normal use of the tool.

Other objects will appear from the following description, the claim appended thereto, and from the annexed drawing, in which like reference characters designate like parts throughout the several views, and wherein:

Figure 1 is a side elevation of a hammer having a heated tool handle formed according to the present invention;

Figure 2 is an enlarged fragmentary longitudinal section on line 2—2 of Figure 1;

Figure 3 is a transverse section, still further enlarged, on line 3—3 of Figure 2; and

Figure 4 is a transverse section, on the same scale as Figure 3, on line 4—4 of Figure 2.

Referring to the drawing, the numeral **10** designates a tool handle, and a tool head **12** is carried by the handle **10**. The tool handle **10** has a bore **14** which extends inwardly from one end or the end opposite the tool head **12** and terminates at a point adjacent the other end or the tool head **12**.

A heating assembly is mounted in the bore **14** of the tool handle **10**. Such assembly comprises a pair of hollow open ended cylinders **20** and **26** respectively, which are arranged in confronting end to end relation and have the confronting ends detachably secured together in overlapping relation. As shown, the portion adjacent the confronting open end **24** of the cylinder **20** is of reduced diameter and is telescopically and detachably received in the flared portion adjacent the confronting open end of the cylinder **26** and indicated by the numeral **21**. The cylinder **20** has the other open end closed, as indicated by the numeral **18** and said cylinder is filled with a liquid fuel absorbing material **22**, such as cotton wadding, or other absorbent material, the cylinder **20** being subsequently referred to as a fuel cylinder.

A burner unit is fixedly positioned within the cylinder **26** inwardly of the end **21** and extends across the cylinder **26**. The burner unit embodies a coil spring **32** which is housed in an asbestos covering **34** of woven material. The unit is positioned within the cylinder **26** so that the coil **22** extends diametrically across the cylinder. The cylinder **26** has an opening, in this instance, opposed openings **38**, Figure 4, at the location of the burner unit for access to said unit.

The cylinder **26** has opposed indentations **28** at the location of the burner unit. Resilient detent means or longitudinally disposed leaf springs **30** are mounted on the cylinder **20** and extend across the overlapping secured ends of the cylinders **20** and **26** and have their free ends **27** retainably engaged in the indentations **28** of the cylinder **26**. The cylinder **26** in the portion between the burner unit and the other open end is provided with a plurality of spaced perforations **36** for egress of heated air therethrough. The portion of the tool handle **10** complemental to the perforation containing portion of the cylinder **26** is provided with openings **50** which extend transversely therethroiugh and are in communication with the bore **14** of the tool handle **10**.

A cap **42** is positioned adjacent to and spaced from the other open end **25** of the cylinder **26**, and a compression coil spring **40** is interposed between and is operatively connected to the cap **42** and to the other open end of the cylinder **26**. Specifically, one end of the spring **40** abuts against the other open end **25** of the cylinder **26**, the other end of which engages against a removable cap **42** having a cylindrical skirt **44** engaged in axial bore **14**, said skirt extending about the spring **40** and being formed with diametrically opposed bayonet slots **46** engageable with a cross pin **48** extending transversely within axial bore **14** and secured to the handle **10**.

Another compression coil spring **16** is between the terminating end of the bore **14** of the tool handle **10** and the closed end **18** of the cylinder **20**.

In use, the fuel container **20** is filled with liquid fuel in a sufficient amount to saturate the cotton wadding **22**, and the heating cylinder **26** is then attached to the fuel container. A flame is applied through the slots **38** of the cylinder **26** to the cover **34** on the spring **32** for a time sufficient to ignite the burner constituted by the spring **32** and its covering **34**. The device is then inserted in bore **14**, after which the cap **42** is secured in position to close the outer end of bore **14**.

The device will now heat the tool handle, and in addition, heat will be transmitted through the radial openings **50**, so that a hand grasping the tool handle will be warmed.

The springs **16** and **40** are welded or otherwise fixedly secured to a fuel container **20** and to the heating cylinder **26**, respectively, and serve to eliminate percussion or vibratory shock when the tool is in use.

It is believed apparent that the invention is not necessarily confined to the specific use or uses thereof described above, since it may be utilized for any purpose to which it may be suited. Nor is the invention to be necessarily limited to the specific construction illustrated and described, since such construction is only intended to be illustrative of the principles, it being considered that the invention comprehends any minor change in construction that may be permitted within the scope of the appended claim.

What is claimed is:

In combination with a tool handle having a bore extending inwardly from one end and terminating at a point adjacent the other end, of a heating assembly mounted in said bore, said assembly comprising a pair of hollow open ended cylinders arranged in confronting end to end relation and having the confronting ends detachably secured together in overlapping relation, one of said cylinders having the other end closed and filled with a liquid fuel absorbing material, a burner unit fixedly positioned within the other of said cylinders inwardly of the confronting end and extending across said other cylinder, said other cylinder having opposed indentations at the location of said burner unit, resilient detent means mounted on said one cylinder extending across the overlapping secured ends and having free ends retainably engaged in said indentations, there being an opening in said other cylinder at the location of said burner unit for access to said unit, said other cylinder in the portion between said burner unit and the other end being provided with a plurality of spaced perforations for egress of heated air therethrough, the portion of said tool handle complemental to said other

cylinder portion being provided with openings extending transversely therethrough and in communication with said handle bore, a cap positioned adjacent to and spaced from the other end of said other cylinder, a coil spring interposed between and operatively connected to said cap and to the other end of said other cylinder, said cap closing said one end of said handle and attached to the tool handle, and another coil spring between the terminating end of said bore and the closed end of said one cylinder.

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