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A. J. ANDERSON ET AL

2,948,005

POLISHING MACHINE

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FIG. 1

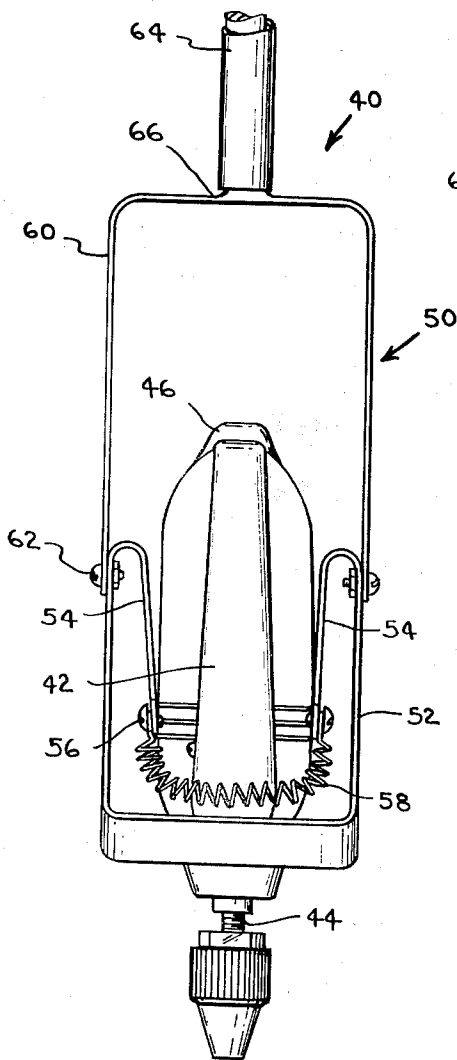


FIG. 2

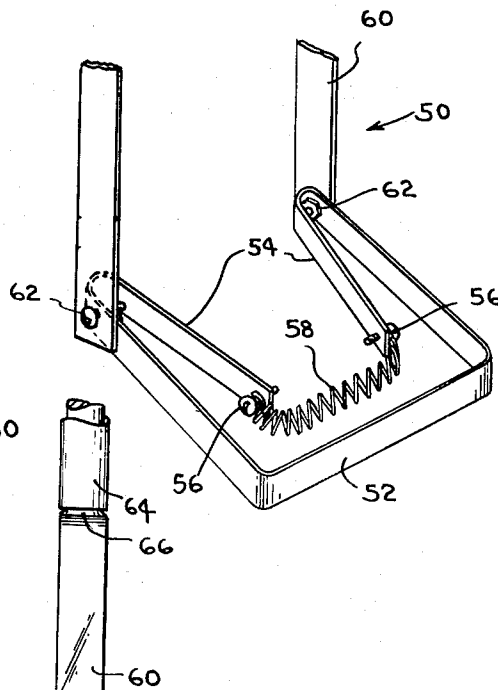
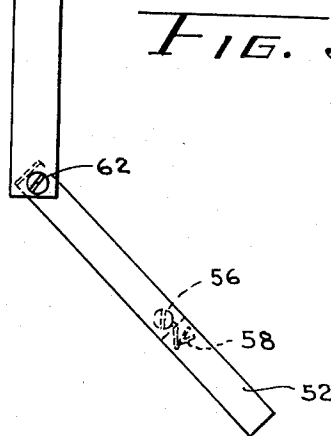


FIG. 3



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POLISHING MACHINE

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3 Claims. (Cl. 15—98)

This invention relates to a portable polishing machine of the rotary type wherein an electric motor housed within a casing, drives a shaft to whose end a polishing disk or the like may be secured and wherein handle means is demountably fastened to the casing for use in manipulating the machine in moving the polishing element over the work.

Heretofore, the prior portable polishing machines employed handle means which were either permanently secured to the casings of the machines, or the handle means could not be as readily mounted on the casings of machines or demounted from the casings of the machines.

My handle means comprises a clamp which is easily clamped on the casing and to which the bail of a handle is pivotally connected. The clamp means is provided with an adjustable means whereby the clamp can be securely fastened to different size casings, for polishing machines.

It is an object of this invention, to provide in a polishing machine, a handle means which is quickly and easily mounted and demounted on the casing of the polishing machine.

It is another object of this invention to provide in a rotary polishing machine, handle means which can be readily mounted on different sizes and styles of casings for rotary polishing machines.

It is a still further object of this invention to provide a rotary polishing machine with handle means which are simple in construction and cheap to manufacture.

Other objects and advantages will become apparent from the detailed description and annexed claims.

Figure 1 is a front elevational view of the polishing machine.

Figure 2 is a perspective view of the clamp of the handle employed with the polishing machine of Figure 1.

Figure 3 is side elevational view of the clamp shown in Figure 2.

Referring to the drawing in detail, 40 is a conventional electric drill means which has been converted into a polishing machine. The polishing machine 40 comprises a lower cup-like shaped casing 42 and designed to constitute a support for an electric motor (not shown) and provides a bearing for the normally vertical shaft or spindle 44, which is adapted to carry a polishing element (not shown). A rearwardly extending casing portion 46 provides an outlet for the electric wiring from the electric motor.

The demountable handle means 50 consists of an adjustable clamp which comprises an inverted U-shaped member 52 provided with an upstanding arm 54 at the end of each leg of the inverted U-shaped member 52. The upper end of the arms 54 are provided with screw threaded apertures for accommodating a screw threaded stud bolt 56. The bolts 56 may be unthreaded. The ends

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of a coiled spring 58 are connected between the upper ends of the arms 54 by the stud bolts 56.

An inverted U-shaped bail 60 is pivotally mounted by rivets 62 to the lower part of the legs of the inverted U-shaped portion 52 of handle means 50. An elongated handle 64 is fastened on a shank 66 of the bail 60.

The stud bolts 56 fit into screw threaded apertures in the opposite sides of the casing 42 for securing the arms 54 of the clamp 50 to the casing 42. The coiled spring 58 fits or abuts around the top of the casing 42. If the size of the casing 42 varies, then the coiled spring 58 expands to provide a snug fit for the larger sized casings.

The clamp of the handle means may be rubber coated for aiding in elimination of vibration in the polishing machine.

Variation in size of the elements and the use of different materials may be resorted to but all such changes are deemed to fall within the scope of the appended claims.

We claim:

1. In combination with a portable polishing machine wherein a casing houses an electric motor which drives a short shaft to whose lower end a disk may be attached, the center of gravity of the motor and casing being close to the plane of rotation of the disk so that the disk supports the motor and casing in a stable equilibrium, an inverted U-shaped clamp member, upwardly extending arms formed on the legs of the inverted U-shaped clamp member, the upwardly extending arms detachably secured to the sides of the casing, a spring means connected between the upper ends of the upwardly extending arms and fitting a portion of the casing, a bail pivotally mounted on the legs of the clamp, and a handle formed on the bail.

2. In combination with a portable polishing machine wherein a casing houses an electric motor which drives a short shaft to whose lower end a disk may be attached, the center of gravity of the motor and casing being close to the plane of rotation of the disk so that the disk supports the motor and casing in a stable equilibrium, an inverted U-shaped clamp member, upwardly extending arms formed on the legs of the inverted U-shaped clamp member, a resilient means connected between the upper ends of the upwardly extending arms and fitting a portion of the casing, a bail pivotally mounted on the legs of the clamp, and a handle formed on the bail.

3. In combination with a portable polishing machine wherein a casing houses an electric motor which drives a short shaft to whose lower end a disk may be attached, the center of gravity of the motor and casing being close to the plane of rotation of the disk so that the disk supports the motor and casing in a stable equilibrium, an inverted U-shaped clamp member, upwardly extending arms formed on the legs of the inverted U-shaped clamp member, the upwardly extending arms detachably secured to the sides of the casing, resilient means connected between the upper ends of the upwardly extending arms and fitting a portion of the casing, a bail pivotally mounted on the legs of the clamp, a handle formed on the bail.

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