W. T. HEAPS & W. THACKERAY.

POLISHING MACHINE.

APPLICATION FILED JAN. 21, 1916.

1,205,533. Patented Nov. 21, 1916.

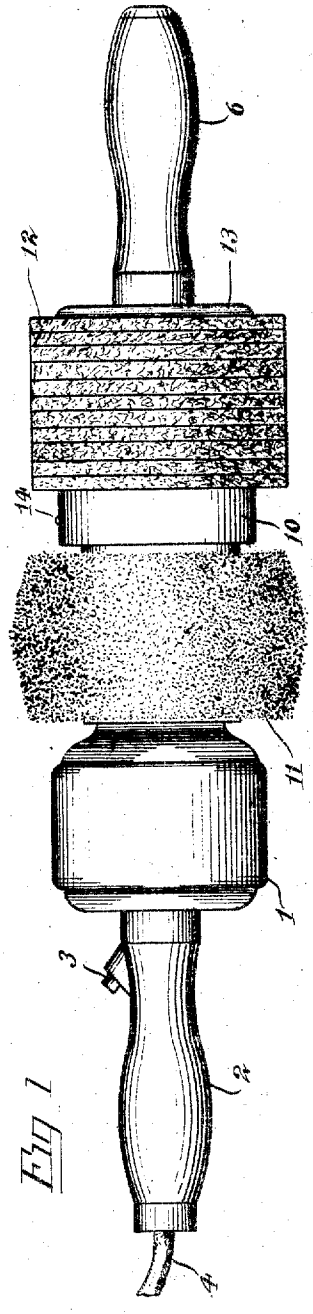


Fig 1

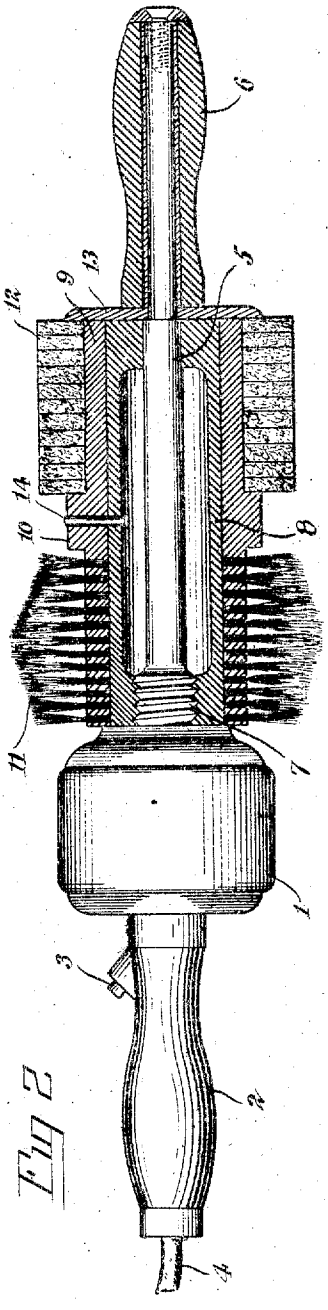


Fig 2

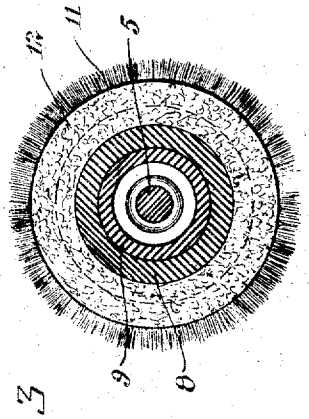


Fig 3

Witnesses

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UNITED STATES PATENT OFFICE.

WARREN T. HEAPS AND WILLIAM THACKERAY, OF KEWANEE, ILLINOIS.

POLISHING-MACHINE.

1,205,533. Specification of Letters Patent. Patented Nov. 21, 1916.

Application filed January 21, 1916. Serial No. 73,414.

To all whom it may concern:

Be it known that we, WARREN T. HEAPS and WILLIAM THACKERAY, citizens of the United States, residing at Kewanee, in the county of Henry and State of Illinois, have invented new and useful Improvements in Polishing-Machines, of which the following is a specification.

This invention relates to improvements in polishing machines and has particular application to an electrically operated portable polishing machine.

In carrying out the present invention, it is our purpose to provide a portable polishing machine which may be conveniently handled and wherein the electric motor and the polishing element will be intimately connected together so that the machine will occupy comparatively small space and may be manipulated easily.

It is also our purpose to provide a machine of the class described wherein polishing elements of different types may be connected to the motor so that the machine may be used for polishing shoes, silverware, brassware, wood, etc.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claim.

In the accompanying drawing: Figure 1 is a view in side elevation of a polishing machine constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view therethrough. Fig. 3 is a cross sectional view of the same.

Referring now to the drawing in detail, 1 designates an electric motor and secured to one end of the casing of the motor 1 coaxial with the shaft is a handle 2 provided with a controlling switch 3. Leading into the handle 2 are supply wires 4 including the switch 3 and the motor and whereby current may be delivered to the motor to energize the latter. Connected to the armature shaft at the opposite end of the casing and projecting outwardly from the casing coaxial with the handle 2 is a shaft 5 and loosely surrounding the outer end of the shaft 5 and spaced apart from the motor 1 is a handle 6 by means of which and the handle 2 the machine may be transported and held in polishing position.

In the present instance, the portion of the shaft 5 immediately adjacent to the motor casing is circumferentially enlarged and screwthreaded as at 7 and surrounding the shaft 5 between the motor casing and the handle 6 is a sleeve 8. One end of the sleeve 8 is threaded onto the enlarged portion of the shaft, while the remaining end hugs the shaft. Encircling the sleeve 8 is a polishing element comprising a cylinder 9 formed centrally with an annular rib 10 and secured to the cylinder 9 between the rib 10 and one end thereof are brush bristles 11, while surrounding the other end portion of the cylinder is a polishing pad 12. In the present instance, the pad 12 is composed of a number of circular felt disks held in proper position by means of a disk 13 surrounding the shaft 5 between the handle 6 and the adjacent end of the sleeve and this disk 13 coacts with the rib 10 to hold the individual felt disks of the pad 12.

In practice, the handle 6 is removed from the shaft 5 and the polishing element slipped over the shaft and the end of the sleeve 8 of such element adjacent to the motor casing threaded onto the shaft. The disk 13 and handle 6 are then applied to the shaft. When using the machine for polishing purposes, the handles 2 and 6 are grasped by the respective hands of the user and the switch 3 closed to energize the motor and in the operation of the motor, the polishing element is rotated about the shaft 5 and is placed in contact with the object to be polished. Owing to the threaded connection between the shaft and the polishing element, the connection between the polishing element and the shaft is tightened in the continued rotation of the shaft, thereby preventing disconnection of the polishing element from the shaft.

Passed through the central portion of the cylinder 9 and the sleeve 8 is a pin 14 forming a connection between the cylinder and the sleeve.

Although we have shown and described particular types of brushes, we wish it to be understood that any form of polishing means may be secured to the cylinder so that various articles may be polished.

We claim:

A portable polishing machine comprising an electric motor, a handle secured to the casing of said motor at one end thereof coaxial with the motor shaft, a shaft con-

nected to the motor shaft at the other end of the casing and projecting outwardly therefrom in axial alinement with said handle, a handle loosely surrounding the outer end of said shaft, a sleeve surrounding said shaft between said handle and motor casing and having the end adjacent to the motor casing threaded onto the shaft, a cylinder surrounding said sleeve and fixed thereto, and polishing means carried by said cylinder.

In testimony whereof we affix our signatures in presence of two witnesses.

WARREN T. HEAPS.
WILLIAM THACKERAY.

Witnesses:
RALPH L. NEVILLE,
FRANK GUPETILL.