

No. 837,115.

PATENTED NOV. 27, 1906.

J. W. & H. F. PLUMMER.
WOOD CLEANING AND POLISHING DEVICE.
APPLICATION FILED APR. 16, 1906.

Fig. 1.

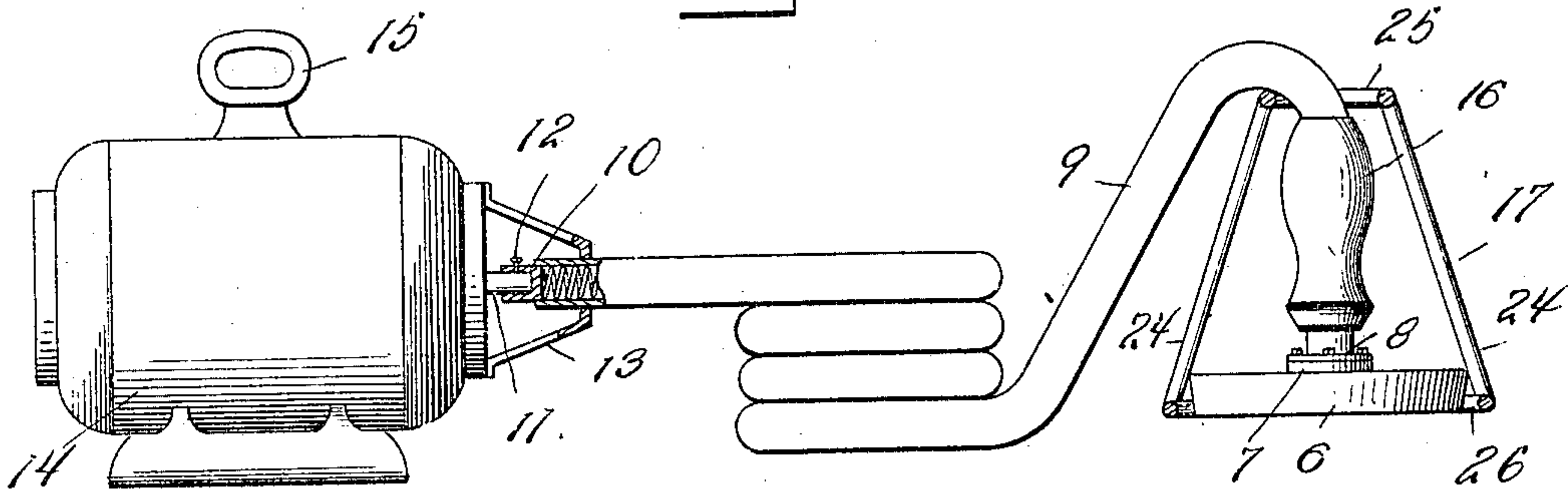


Fig. 2.

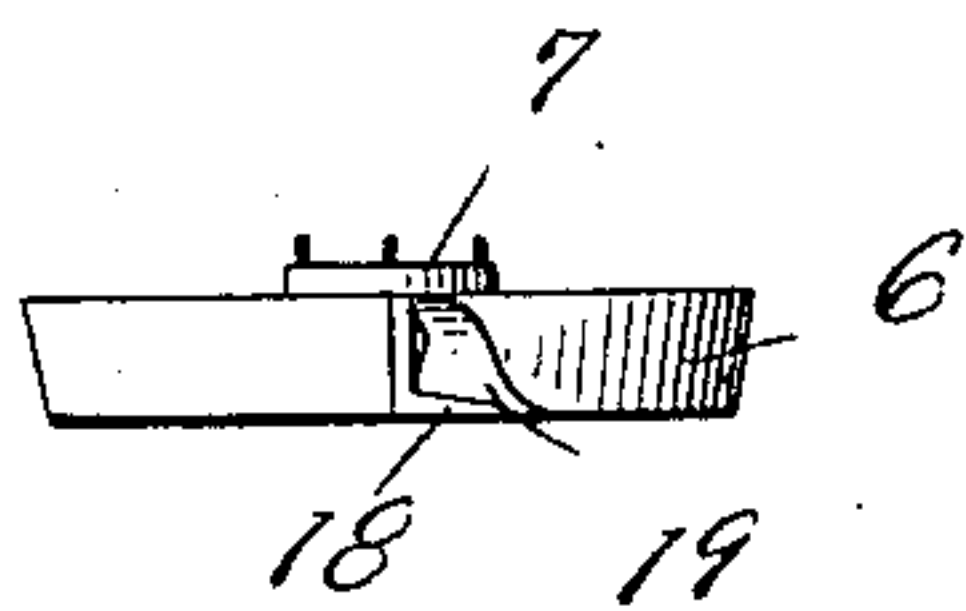


Fig. 4.

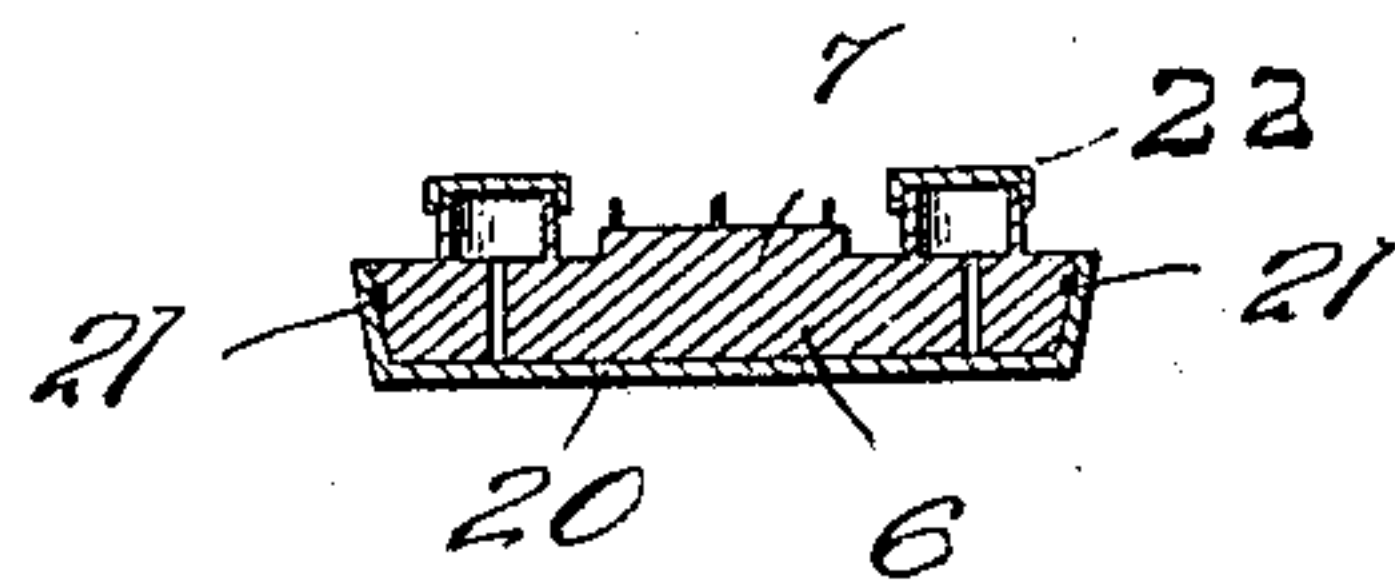


Fig. 3.

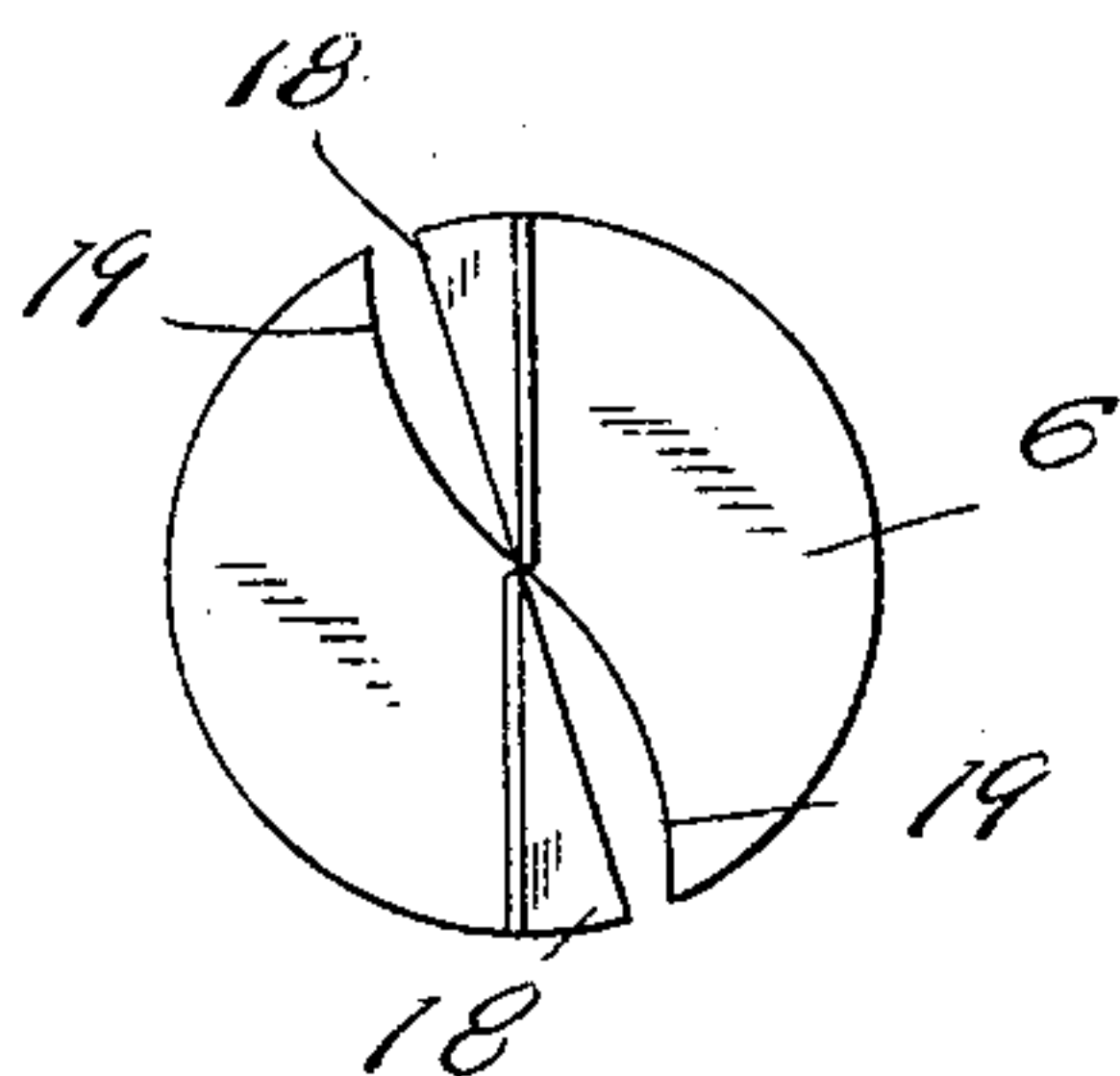
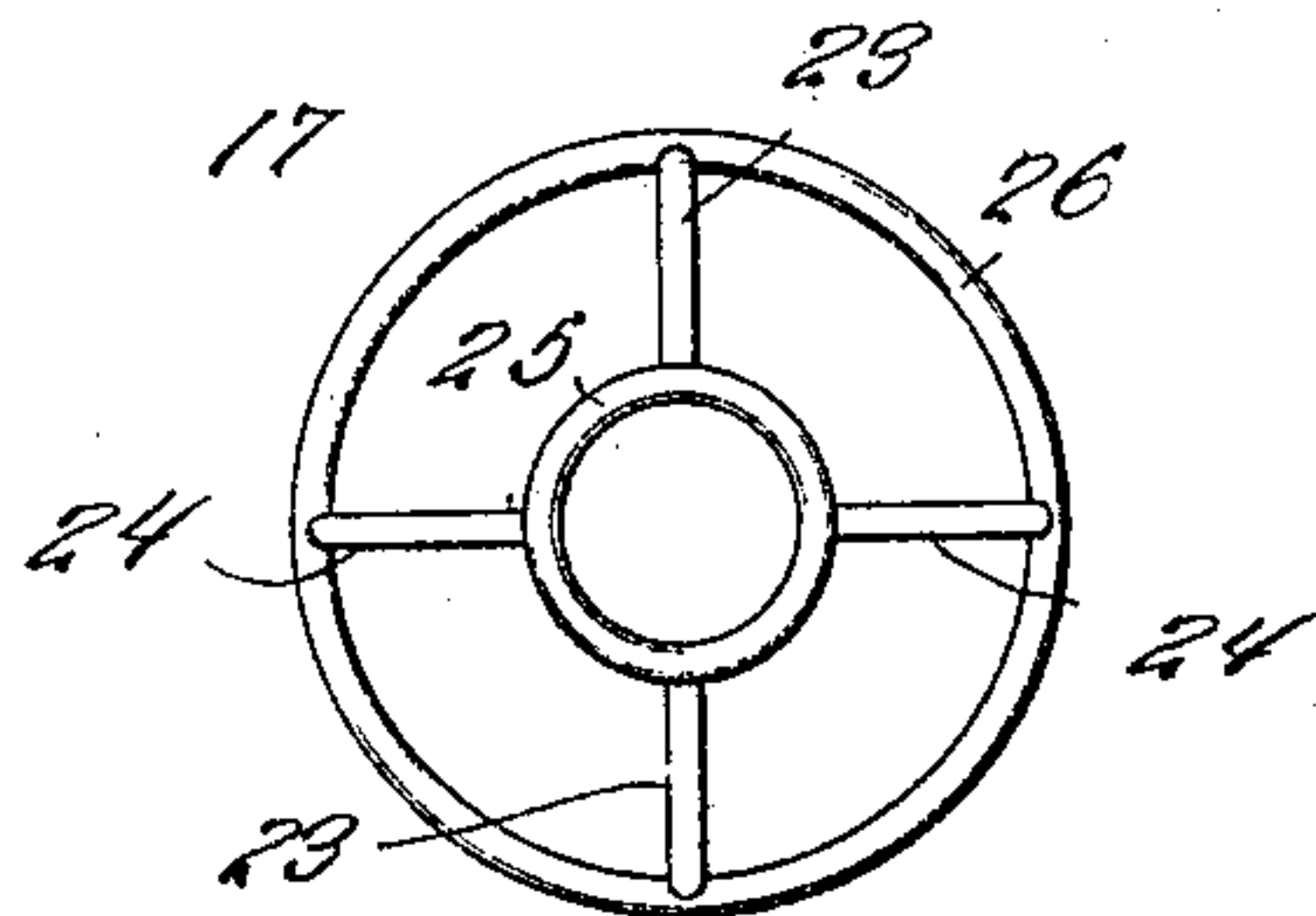


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN W. PLUMMER AND HARRY F. PLUMMER, OF ALTOONA,
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WOOD CLEANING AND POLISHING DEVICE.

No. 837,115.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed April 16, 1906. Serial No. 312,011.

To all whom it may concern:

Be it known that we, JOHN W. PLUMMER and HARRY F. PLUMMER, citizens of the United States, residing at Altoona, in the county of Blair, State of Pennsylvania, have invented certain new and useful Improvements in Wood Cleaning and Polishing Devices; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in electrically-operated wood cleaning and polishing devices, and has for its object to provide an improved device of that nature which shall be simple of manufacture, easy of operation, and provided with means whereby any desired form of cleaning or polishing tool may be attached to the operating means, said device being further provided with means whereby the tools proper may be steadied and braced.

Further improvements will be apparent from a consideration of the following detailed description and from an inspection of the drawings attached thereto and in which like parts are referred to by the same numerals in all the views.

In the drawings, Figure 1 is a side elevation of our improved device attached to an electric motor of any desired description, parts of the flexible shaft-casing being broken away to show more clearly the connections thereof with the motor and the cleaning or polishing head. Fig. 2 is a detail view showing an elevation of a dresser or planer head adapted to be attached to the shaft. Fig. 3 is a bottom view of Fig. 2. Fig. 4 shows an elevation of an oil-finishing head. Fig. 5 is a top plan view of the head-brace.

Referring to the drawings, 6 designates a tool-head provided on its upper surface with a casing 7, having thereon a series of screw-threaded projections or bolts adapted to be received in a coupling 8 of a flexible shaft 9, the other end of which is attached, by means of a socket 10, to the shaft 11 of an electric motor 14 by means of a set-screw 12 or other preferred device. The motor 14 may be of any desired construction and is provided at its top with a handle 15, by means of which

the motor may be moved from one place to another into position. The flexible shafting 9 is further held in its proper position adjacent its motor 14 by means of a brace 13, provided with an annular opening through which the shafting passes, said brace being firmly attached at its ends to the motor, as clearly shown in Fig. 1.

The outer end of the shafting 9 is provided adjacent the tool-head 6 with a handle 16, by means of which the tool may be more readily and exactly guided during its operation.

17 designates as a whole a second brace or steadying device embracing the tool-head and handle in a manner hereinafter to be described.

In Figs. 2 and 3 the tool-head 6 is shown as provided with a pair of aligned knives 18 and a pair of concave openings 19 cooperating therewith. As will be apparent from Fig. 3, the edges of the right-hand and left-hand knives must face in opposite directions, and the curve of the left-hand concave opening 19 must consequently be the reverse of the curve of the right-hand opening. The purpose of openings 19 is to provide a means for removal of the shavings of wood caused by the operation of knives 18.

In Fig. 4 a head 6 is shown as connected to a device for polishing a surface of wood and is provided in that instance with a pad of felt or other polishing material 20, covering the under face of head 6 and held in position upon the sides thereof by means of a ring 21 of metal or elastic material, as preferred. The head 6, when used in this connection, is provided with oil-cups 22. It is obvious that where the head is to be used for abrading purposes sandpaper is substituted for the felt pad 20, being attached in like manner to the operating-head by the ring 21. Any other desired form of operating-surface may of course be substituted for the sandpaper or felt, or the head may be used in connection with other constructions or knives than that shown in Figs. 2 and 3.

The operating-head of the device, as stated, is braced and guarded by means of the brace-frame 17, which, as shown in Figs. 1 and 5, consists of a pair of annular rings 25 and 26, concentrically arranged with reference to the handle 16 of the operating-head,

said rings being spaced apart by pairs of rods 23 and 24, arranged at right angles to each other.

As seen in Fig. 1, the lower ends of the rods 24 fit closely against the upper edge of head 6, and as the entire brace 17 is made of flexible metal said brace will be firmly held in place upon the head, owing to the resilient pressure of the bars upon the head. By means of the coöperation of handle 16 and brace 17 the operator can more readily and positively direct and guide the operating-head, and his hand is prevented from slipping from the handle by means of the slight pressure of the bars of the brace-frame. It is further to be noted that the entire frame 17 acts as a guard for the operating-head, as will be readily understood.

What is claimed is—

1. A device of the kind described comprising a flexible shafting and an operating-head attached to one end thereof, and means attached to the other end of said shafting for rotating the same and said operating-head, an operating-handle upon said shaft and adjacent said head, and a flexible guard-frame surrounding said handle and said operating-head; an operating-tool attached to the under surface of said operating-head, and means for holding the same in place thereon.

2. A device of the kind described compris-

ing in combination an operating-head, a flexible shafting attached to said head, and means for rotating said shafting and head, an operating-tool attached to the under surface of said head, and means for retaining the same in place thereon, a handle attached to said shafting adjacent said head, and a guard-frame surrounding said handle and head, said frame consisting of a pair of annular members, and resilient spacing means connected with said members and pressing against the operating-head.

3. In a device of the kind described in combination an operating-head and a flexible shafting connected thereto; means to rotate said shafting and said operating-head; knives on the under side of said operating-head, and cavities adjacent said knives, the edge of one knife and its cavity being reversally arranged with respect to the other knife and its cavity; a handle connected to said shafting adjacent the operating-head, and a guide-frame surrounding said operating head and handle.

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

JOHN W. PLUMMER.
HARRY F. PLUMMER.

Witnesses:

JOHN E. SHUFF,
HARRY P. HAYS.