

# United States Patent

[11] 3,561,449

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[54] **CUTTER TOOL**  
 3 Claims, 6 Drawing Figs.

[52] **U.S. Cl.**..... 128/305

[51] **Int. Cl.**..... A61b 17/32

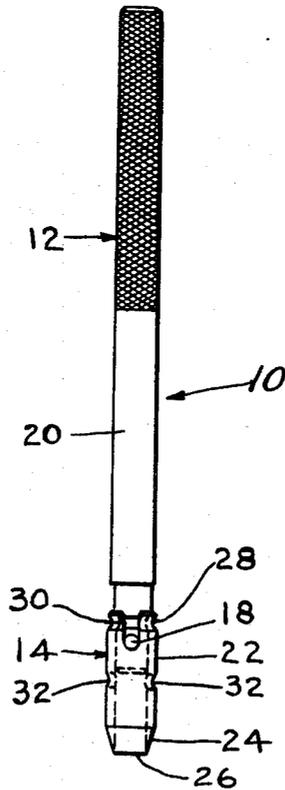
[50] **Field of Search**..... 128/305,  
 310, 329, 355, 2

[56] **References Cited**

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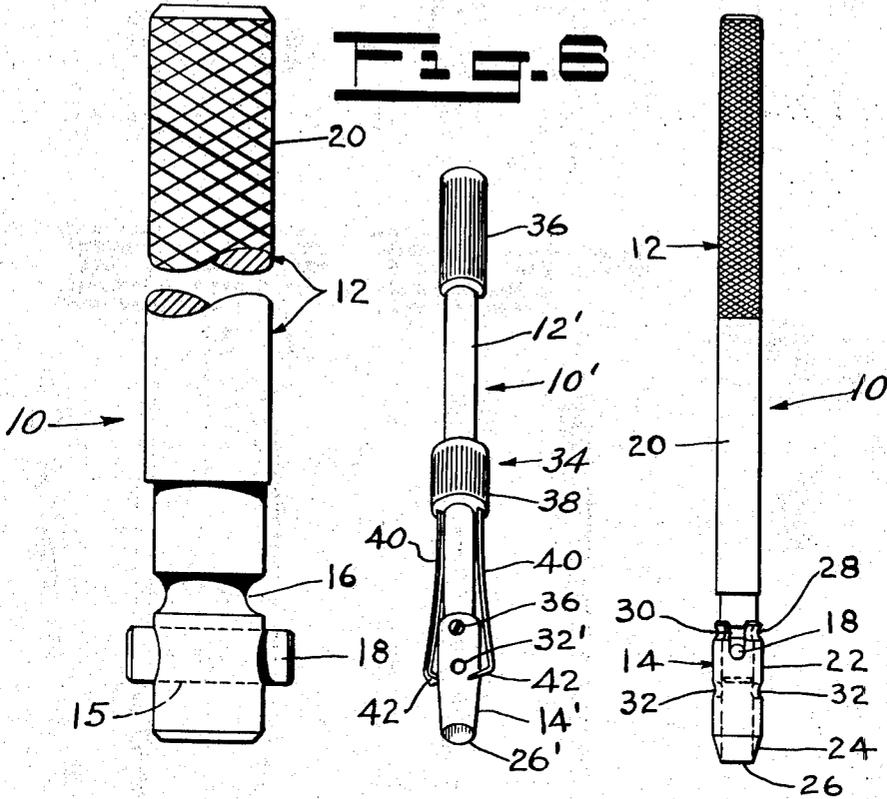
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**ABSTRACT:** A cutter tool for forming sockets in the skin of the scalp of a person with ease and precision. The tool may be produced at a reasonable cost so that the tool can be discarded after a single operation. The tool comprises an elongated handle cylindrical in cross section, with a detachable tubular head open at both ends, with a knife edge at one end. The head is formed with guide slots and bleed holes.

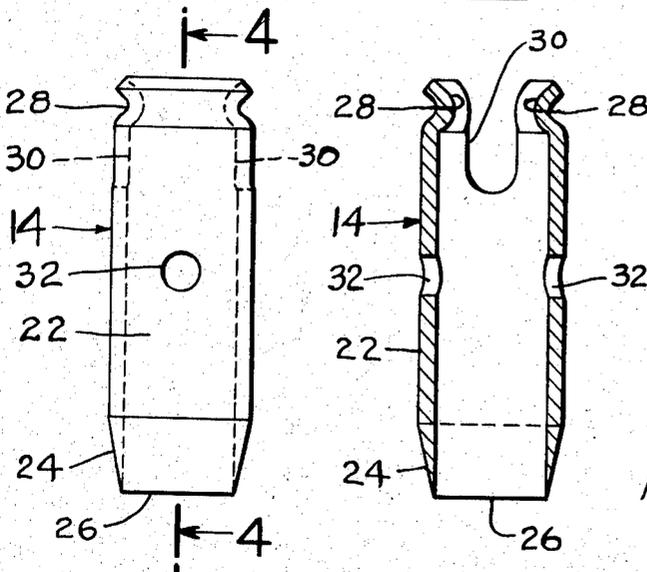


**Fig. 2**

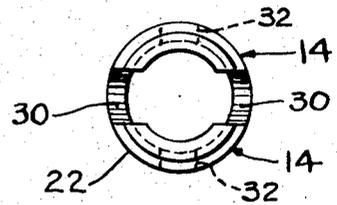
**Fig. 1**



**Fig. 3** **Fig. 4**



**Fig. 5**



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**CUTTER TOOL**

This invention relates generally to the art of transplanting hair from an area on a person's scalp having hair to a area on the scalp without hair or an area that is bald. In particular, the invention relates to a tool or punch having a circular knife edge for boring out plugs of bald scalp into which grafts of hair will be placed.

A principal object of the invention is to provide a punching tool of the character described which is relatively simple in construction, strong and durable, compact, of light weight and which may be produced at a reasonable cost to permit to be discarded after a single operation. Other

Other objects and advantages of the invention will become apparent and reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof.

**BRIEF DESCRIPTION OF THE VIEWS OF THE DRAWING**

FIG. 1 is a top plan view of a punching tool embodying one form of the invention.

FIG. 2 is a plan view of the handle of the tool.

FIG. 3 is a plan view of the detachable cutter head of the tool.

FIG. 4 is a vertical sectional view of the cutter head taken on the line 4-4 of FIG. 3.

FIG. 5 is a top plan view of the cutter head as viewed in FIG. 3.

FIG. 6 is a perspective view of a punching tool embodying a modified form of the invention.

**DETAILED DESCRIPTION OF THE DRAWING**

Referring to the drawings in detail, it will be seen that the embodiment of the punch or cutter which has been illustrated in FIG. 1 is designated generally at 10 and is composed of suitable metal. The punch or cutter 10 comprises an elongated handle 12 and a removable cutter head 14.

The handle 12 has an elongated cylindrical solid body 20 with a transverse hole at one end thereof in which is positioned a pin 18 projecting on both sides of the body. An annular groove 16 is formed in the body adjacent the perforated end thereof.

The cutter head 14 has a tubular body 22 formed with a tapered end 24 terminating in a knife edge 26. Opposed bleed holes 32 are formed in the body midway the ends thereof, and opposed slots 30 are formed in the other end intersecting said end. The body is rolled to form an interior annular bead 28 across the slotted end thereof.

In assembling, the cutter head 14 is slid over the perforated end of the handle 12 with its opposed slots 30 in line with the projecting ends of the pin 18 so that the edges of the slots interlock with the pin and the projecting ends of the pin serve as guides and prevent the head from turning. The annular bead 28 on the head snaps into the annular groove 16 in the handle 12 thereby releasably holding the head on the handle.

In operation, the bald area of the head into which hair will be grafted, and the area of the head from which the hair follicles will be taken are both anaesthetized by the injection of a local anesthetic. The punch or cutter 10 is approximately five-thirty seconds of an inch in diameter. The punch or cutter is then used to cut out plugs in the bald portion of the scalp leaving sockets. The same punch or cutter 10 is then used to cut

out or bore out hair-bearing plugs from the portion of the scalp bearing hair. The hair-bearing plugs are removed from the scalp and the hair trimmed to proper length. The prepared hair-bearing plugs are placed in the punched-out sockets on the bald scalp, where they are held in place by congealed blood. After bleeding has ceased, the punched areas of the scalp are dressed or bandaged appropriately.

In FIG. 6, a modified form of tool 10' is illustrated consisting of an elongated handle 12' and cutter head 14' and a plug remover indicated generally at 34. The handle is formed with an elongated corrugated sleeve 36 at its outer end to facilitate handling. The cutter head 14' is shown as fixed on the other end of the handle by means of a screw 36 extending through a threaded transverse hole (not shown) at said other end. The cutter head 14' is formed with the bleed holes 32' and the knife edge 26' similar to the cutter head 14. The interlocking bead and the annular groove however are missing from cutter head 14'.

The plug remover 34 comprises a corrugated sleeve 38 slid over the perforated end of the handle 12' to a position intermediate the ends of the handle. A pair of opposed spring arms 40, 40 is carried by the sleeve 38, one end of the arms anchored in the end edge of the sleeve with the arms extending alongside the body of the handle and terminating at the outer free ends thereof in inwardly turned pointed prongs 42, 42 adapted to snap under the hair-bearing plugs after the plugs are cut whereupon outwardly movement of the punch or cutter removes the plug.

I claim:

1. A cutter tool for forming removable plugs and sockets in the skin of the scalp of a person, said tool comprising an elongated solid cylindrical handle, a tubular cutting head on one end of the handle and means for securing the head on the handle, said cutter head having a tapered portion at one end thereof terminating in a circular knife edge, said means for securing the head on the handle including an annular groove in the body of the handle adjacent one end thereof and an annular bead on the interior of the tubular cutting head adjacent its inner end and adapted to snap into the groove upon assembly.

2. A cutter tool for forming removable plugs and sockets in the skin of the scalp of a person as defined in claim 1, a transverse pin fixed on the handle below the annular groove thereof and with its ends projecting outwardly from the opposite sides thereof, said cutter head having opposed slots intersecting one end and the annular bead thereof adapted to coact with the projecting ends of the pin for assembling the cutter head on the handle and for preventing the cutter head from turning thereon.

3. A cutter tool for forming removable plugs and sockets in the skin of the scalp of a person, said tool comprising an elongated solid cylindrical handle, a tubular cutting head on one end of the handle and means for securing the head on the handle, said cutter head having a tapered portion at one end thereof terminating in a circular knife edge, and a device for removing a plug of skin cut from the scalp, said device including a sleeve slidably mounted on the handle, and opposed elongated spring arms carried by the sleeve extending along the body of the handle, and opposed inwardly extending prongs on the free ends of the arms adapted to snap into the under surface of the cut plug in the scalp whereby longitudinal movement of the cutter tool removes the cut plug from the scalp.

**Notice of Adverse Decision in Interference**

In Interference No. 98,735, involving Patent No. 3,561,449, F. A. Bellantoni, CUTTER TOOL, final judgment adverse to the patentee was rendered July 22, 1977, as to claims 1, 2 and 3.

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