No. 804,436. PATENTED NOV. 14, 1905.

C. S. SCHULTZ.

TOOL.

APPLICATION FILED MAY 26, 1905.

Fig. 1.

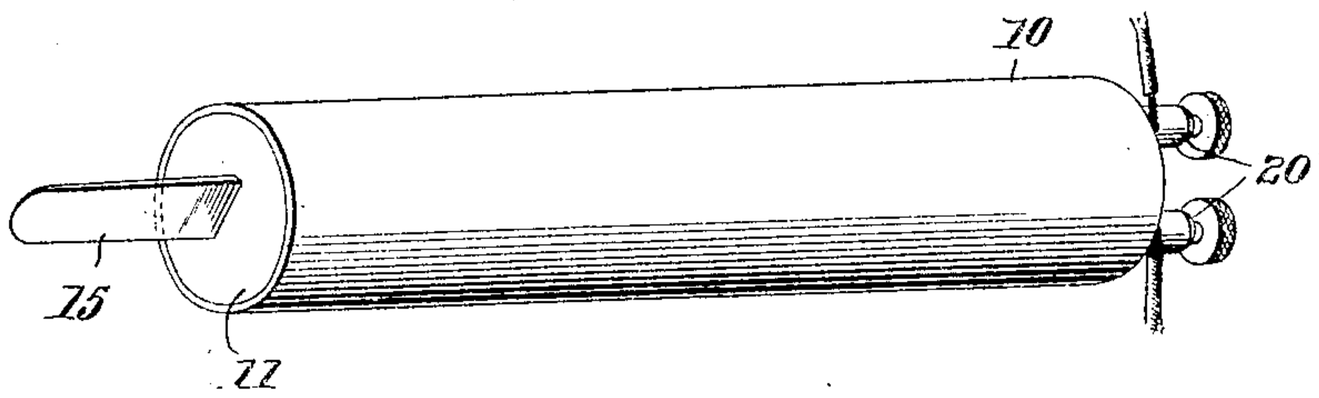


Fig. 2.

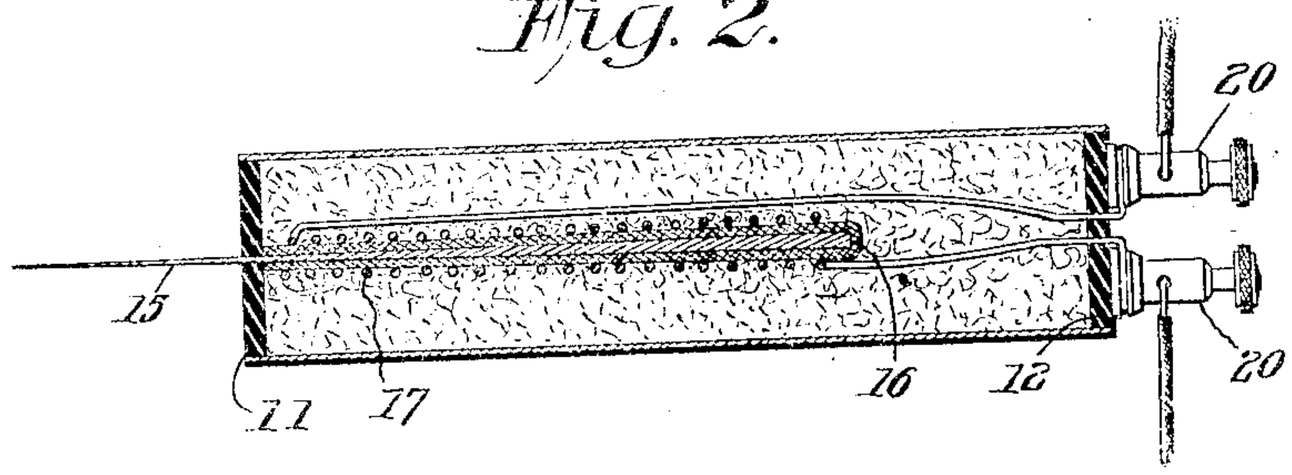
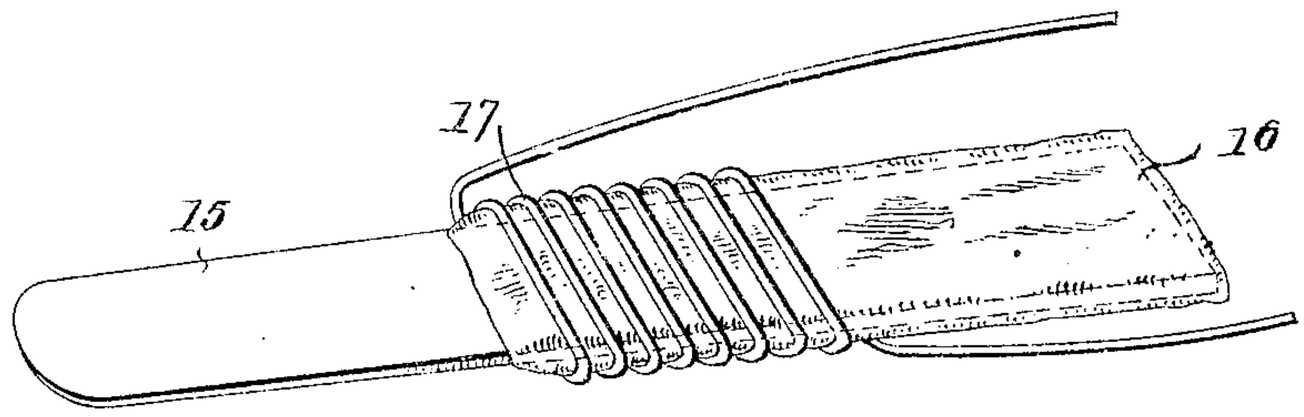


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES STANLEY SCHULTZ, OF NEW YORK, N. Y.

TOOL.

No. 804,436. Specification of Letters Patent. Patented Nov. 14, 1905.

Application filed May 26, 1905. Serial No. 262,503.

To all whom it may concern:

Be it known that I, CHARLES STANLEY SCHULTZ, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Tool, of which the following is a specification.

This invention relates to tools employed for filling in or cementing holes or cracks in wood, leather, or other material, and has for its principal object to provide a tool of simple construction which may be readily maintained at the proper temperature by means of an electrical current.

A further object of the invention is to provide a tool of this class in which the shank portion is comparatively thick and heavy and is surrounded by a resistance-coil connected in suitable manner to a source of electrical energy, while the outer portion of the working end of the blade is thin and flexible in order that it may readily bend and follow the work.

A still further object of the invention is to provide a tool of simple construction in which the enlarged shank operates in a measure as a heat-reservoir for maintaining the working end of the blade at the proper temperature and, further, to so arrange the tool that it may be readily laid flat on any surface without danger of the heated end of the knife coming into contact with such surface while the tool is not in use.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of a burning or scorching tool constructed in accordance with the invention. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is a detail perspective view of the knife or blade detached, showing a portion of the wrapping around the shank of the knife and a portion of the resistance-coil.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The tool shown in the drawings is intended principally for the removal of paint, putty, and the like or as a filling-in tool for pressing a cement or filling into holes, cracks, or other interstices in wood, leather, and other material, and it is essential that the operating end of the tool be flexible and at the same time be heated to an extent sufficient to soften the paint, putty, or other material being operated upon.

The handle 10 of the tool is preferably in the form of a cylinder, of metal or other material, the opposite ends of which are poised by disks 11 and 12, respectively, said disks being preferably formed of vulcanized fiber or similar material. The disk 11 is provided with a central slit for the passage of the blade 15, said blade being formed of any suitable metal, preferably soft steel, its projecting end being in the form of a flexible blade having a preferably rounded point and the edges adjacent to the point being comparatively sharp to permit the use of the tool as a scraper as well as for filling-in purposes. The shank of the blade is of much greater thickness than the outer portion thereof and is covered by a layer of asbestos 16 or any material of similar nature which will act as a non-conductor and serve to prevent short-circuiting of the windings of the resistance-coil 17, that surrounds the shank portion of the blade. The resistance-coil 17 may be formed of German-silver wire or any other material of sufficiently high resistance for the purpose, and the opposite ends of the coil are connected through suitable binding-posts 20, that are carried by the end disk 12, the binding-post being electrically connected to a suitable source of energy while the tool is in use.

The resistance-coil is surrounded by a suitable non-conducting material, such as asbestos, plaster-of-paris, or the like, which serves to hold the blade and resistance-coil firmly in place, the blade being thus held by the filling material and by the disk 11, so that it cannot move when subjected to any ordinary strain.

Having thus described the invention, what is claimed is—

In a tool of the class described, a hollow handle having end members of insulating mate-

rial, a blade extending through an opening formed in one of said members, said blade having a thin flexible outer end, and being tapered from thence toward the opposite inner end to form a thickened and enlarged shank, constituting a heat-reservoir, the tapered surface serving by engagement with the walls of the opening to prevent outward movement of the blade, a resistance-coil surrounding the shank portion of the blade and insulated therefrom, binding-posts carried by the opposite end member and electrically connected to the resistance-coil, and a packing or filling of non-conducting material surrounding the resistance-coil and serving as a means for holding the coil and the shank portion of the blade in place and preventing endwise or lateral movement of such blade.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES STANLEY SCHULTZ.

Witnesses:
ALFRED J. JOHNSON,
GUSTAV LEISTNER.