No. 796,536. PATENTED AUG. 8, 1905.

C. S. SCHULTZ.

TOOL.

APPLICATION FILED FEB. 9, 1905.

Fig. 1.

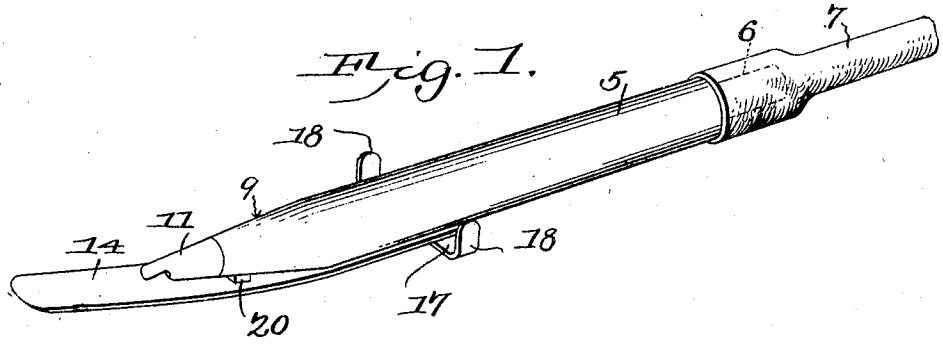


Fig. 3.

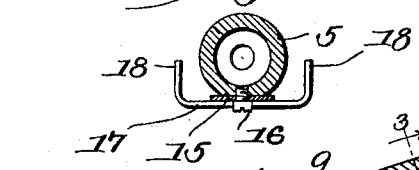


Fig. 2.

Fig. 6.

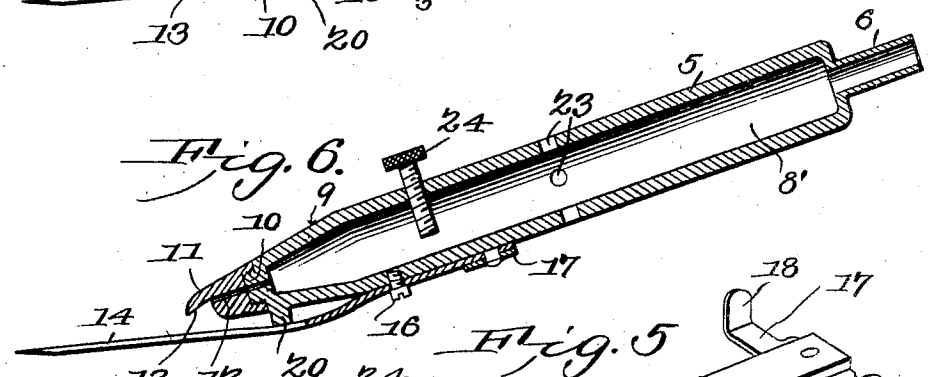


Fig. 5

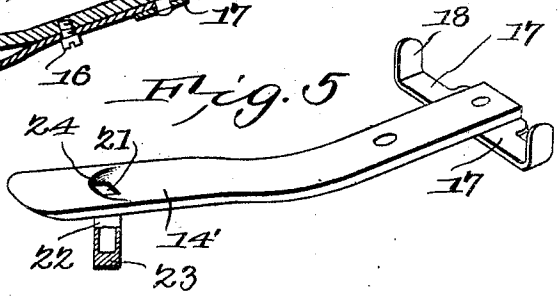


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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

TOOL.

No. 796,536. Specification of Letters Patent. Patented Aug. 8, 1905.

Application filed February 9, 1905. Serial No. 244,980.

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 an improved burning-in or scorching knife, and has for its object to provide a simple, inexpensive, and convenient tool of this character particularly designed for filling in or cementing holes or cracks in wood, leather, and similar materials.

A further object of the invention is to provide a knife or tool which may also be used for producing charred designs or delineations in wood or leather and known in the art as "pyrogravures."

A further object is to provide means for preventing accidental burning or charring of the wood on each side of the particular line of the design being traced or burned into the wood.

A still further object is to provide a tool having a pivotally-supported resilient knife or blade movable laterally to inoperative position out of the path of the heating jet or flame.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of a burning-in or scorching tool constructed in accordance with my invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse section on the line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of the burner-tip detached. Fig. 5 is a perspective view of the knife used for tracing or burning designs in wood. Fig. 6 is a longitudinal sectional view illustrating a modified form of the invention.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The device consists of a tubular body portion or handle 5, having at one end thereof a reduced extension 6, to which is attached a tube or flexible hose 7, leading to a gas-jet or other suitable source of supply and through which the gas flows to the compartment or chamber 8.

The free end of the handle 5 is tapering or conical, as indicated at 9, and provided with a threaded extension 10, which engages the correspondingly-threaded socket of a detachable burner-tip 11, the latter being formed with a jet-orifice 12 and an overhanging lip or deflector 13, which directs the flame in contact with the pivoted knife 14, so as to maintain said knife at a high degree of heat. The knife 14, which is preferably formed of spring metal, is pivoted to the flat base 15 of the handle in any suitable manner, as by a screw 16, said knife being provided with laterally-extending arms 17, terminating in upwardly-projecting ears or finger-pieces 18, adapted to engage the side walls of the handle and limit the lateral movement of said knife.

The free end of the knife 14 is provided with a cutting edge 19 and is spaced from the burner-tip by a transversely-disposed lug 20, secured to or formed integral with the handle or body portion, as shown.

In operation gas flows through the tube or hose 7 to the chamber 8 and thence to the jet-orifice, where it is ignited in any suitable manner, as by applying a lighted match. The flame from the jet-orifice coming in contact with the deflector or lip 13 is directed downwardly against the free end of the knife, thereby heating the latter sufficiently to permit the ready removal of paint, putty, and the like when the device is used as a scraper or for filling in or cementing holes, cracks, and other interstices in wood and similar materials when used as a filling-in tool. When it is desired to cool the knife or blade, it is simply necessary to press inwardly on the finger-piece of either arm 17, which causes the free end of the knife to be shifted laterally out of the path of the flame without the necessity of extinguishing the latter, thereby permitting the said blade to cool.

In Fig. 5 of the drawings there is illustrated a modified form of knife adapted for burning-in or producing charred designs in wood, leather, and other materials. In this case the free end of the knife 14′ is provided with an orifice 21, to the walls of which is secured a depending tube or stylus 22, having its lower end closed, as indicated at 23, and adapted to be heated by the flame from the jet-orifice, so that as the knife is moved over

any particular design previously traced upon the wood said design will be scorched or burned into the latter. The upper surface of the knife is also preferably provided with a depression 24 to properly direct the flame through the orifice and tube to the closed end of the latter.

The blades 14 and 14′ are interchangeable, and either may be readily placed in position on the tool by manipulating the screw 16, as will be readily understood.

In Fig. 6 I have shown the tool provided with a modified form of handle, the latter in this case being provided with one or more openings 23, designed to admit air to the compartment or chamber 8′, while the amount of gas fed to the burner-tip is regulated by adjusting the valve or screw 24.

By having the knife or blade resilient it will adapt itself to any irregularities in the surface of the wood, while by reason of the pivotal connection between the knife and handle the former may be conveniently moved to inoperative position when it is desired to cool the knife without extinguishing the flame.

From the foregoing description it will be seen that there is produced a tool admirably adapted for the attainment of the ends in view.

Having thus described the invention, what is claimed is—

1. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a burner-tip, a knife pivoted to the body portion, and a finger-piece for moving the knife laterally out of the path of the flame.

2. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a knife pivoted to the body portion, a burner-tip provided with a deflector for directing the flame against the knife, and a finger-piece for moving the knife laterally out of the path of the flame.

3. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a resilient knife pivoted to the body portion, a burner-tip, means carried by the tip for directing the flame against the knife, and a finger-piece for moving said knife out of the path of the flame.

4. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a burner-tip, a knife detachably pivoted to the body portion, and finger-pieces carried by the knife for moving said knife laterally out of the path of the flame, said finger-pieces also serving to limit the movement of the knife.

5. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a burner-tip, a knife pivoted to the body portion, and a pair of spaced finger-pieces carried by the pivoted end of the knife for moving said knife laterally out of the path of the flame, said finger-pieces also serving to limit the movement of the knife.

6. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a burner-tip, and a knife pivoted to the body portion and provided with laterally-extending arms having upwardly-projecting finger-pieces adapted to engage the body portion for limiting the lateral movement of said knife.

7. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply and having a flattened base, a burner-tip, a resilient knife pivoted to the flattened portion of the base, and a finger-piece for moving said knife laterally out of the path of the flame from said tip.

8. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a burner-tip, a knife pivoted to the body portion and movable laterally out of the path of the flame, and means carried by the body portion for spacing the free end of the knife from the burner-tip.

9. A tool of the class described comprising a hollow body portion adapted to be connected to a suitable gas-supply, a burner-tip detachably secured to the body portion and provided with an extension forming a deflector, a knife pivoted to said body portion and movable laterally out of the path of the flame from the burner-tip, and means for spacing the free end of the knife from said tip.

10. A tool of the class described comprising a hollow body portion, one end of which is provided with a threaded extension and the opposite end thereof connected to a suitable gas-supply, a burner-tip threaded on said extension and provided with a terminal deflector, a knife pivoted to the body portion and movable laterally out of the path of the flame from the tip, and a lug secured to the body portion at said extension and adapted to engage the pivoted knife.

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:

ALBERT E. MÜLLER,

GUSTAV LEISTNER.