H. M. HOLTON.

PYROGRAPHICAL TOOL.

APPLICATION FILED SEPT. 28, 1908.

936,720. Patented Oct. 12, 1909.

Fig. 1

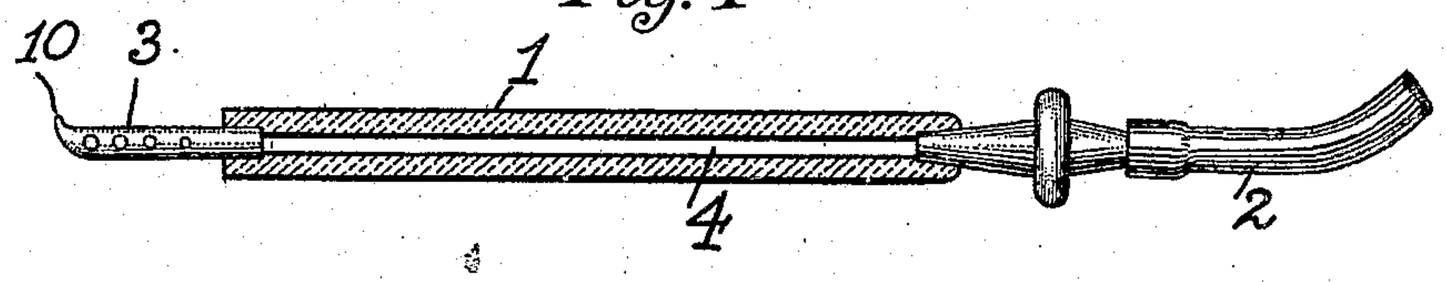


Fig. 2

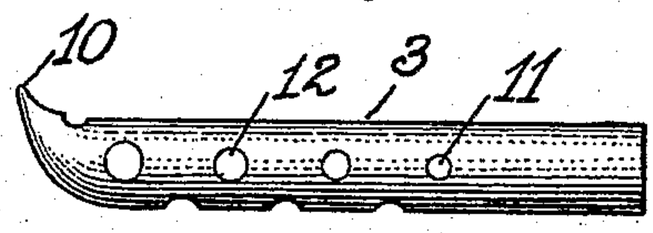
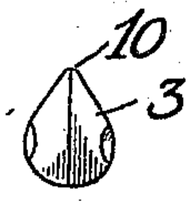


Fig. 3



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HERBERT M. HOLTON, OF NEW YORK, N. Y.

PYROGRAPHICAL TOOL.

936,720. Specification of Letters Patent. Patented Oct. 12, 1909.

Application filed September 28, 1908. Serial No. 455,216.

To all whom it may concern:

Be it known that I, HERBERT M. HOLTON, a citizen of the United States, residing in the borough of Bronx, in the city, county, and State of New York, have invented certain new and useful Improvements in Pyrographical Tools, of which the following is a clear, full, and exact description.

The invention relates to pyrographical devices, more particularly to that class which is used in art work such as the burning of wood, leather and the like, and has for its purpose the production of a tool provided with a handle that will keep cool with long and continuous use; a burning point that conserves its heat energy and an insulating handle, which prevents the heat from being conducted away from the point through the handle.

The invention accordingly consists in the features of construction, combination of elements, a selection of material and arrangement of parts, which will be exemplified in the mechanism hereinafter described and the scope of the application of which will be indicated in the claims.

Referring to the accompanying drawing in which similar characters of reference indicate like parts throughout the several views, Figure 1 is a longitudinal section through the tool. Figs. 2 and 3 are enlarged details of the burning point showing the graduated holes in the under half of the burning tool.

I employ the handle 1 and flexible tube 2 which may be connected to a source of fuel supply and a burning point 3. The handle 1 is provided with a hollow core 4 and adapted at one end to engage a burning point 3. This handle is made out of a material that is a non-conductor of heat, inelastic and firm such as chalk, magnesia, fire clay, lava, etc. The peculiar adaptability of this material will be at once realized for it is possible to provide a means, to hold the burning point 3 entirely outside of the handle 1, as will be seen by referring to Fig. 1. With this construction the metal cores heretofore used in the handles of the tools are done away with, which eliminates that large, radiating or cooling surface. The heat energy is conserved thereby in the burning point, and the heating of the handle prevented.

By referring more particularly to Figs. 2 and 3, which are enlarged details of the burning point 3, it will be seen that it is fashioned out of a tube of metal, one end being closed and drawn to a point 10 more or less off the center line of the tube. I do not wish to restrict myself to this specific shape of point for any shape point may be used. In the wall of the tube away from the point 10 are disposed holes of several diameters, the larger holes being nearer the point 10. The object of these holes being particularly spaced and sized is as follows: Gradually increasing the size of the hole as they near the point provides for delivery of an approximately the same amount of gas at each hole. As will be readily understood, the pressure of the gas supply will be greater at hole 11 than at hole 12 because of the consumption of gas at 11. This increased size of hole tends to make the flame uniform throughout the burning point 3. The holes are drilled through the underside of the tube near the burning point which provides for each flame wrapping itself around the point when in use. This makes a very efficient point, without a conducting or cooling surface. One hole is drilled on the upper side near the burning point. It has been found out that if the flames from these holes unite the heating effect is not so great, but the energy is consumed in light. If the holes are spaced so that the zones of blue flames are just tangent, a more efficient tool is obtained. I therefore space my holes approximately $\frac{3}{16}$ inch apart which has been found to give the best results.

I wish it distinctly understood that my pyrographical tool herein illustrated and described, is in the form which I desire to construct it, and that any changes or variations may be made as may be convenient or desirable without departing from the salient features of my invention and I therefore intend the following claims to cover such modification as naturally fall within the lines of invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent is,—

1. A handle for a tool of the class described, made of clay, provided with a hollow core and adapted to securely hold in one end a burning point.

2. In a pyrographical tool, a burning point provided with holes of several diameters the largest being nearest the burning point.

This specification signed and witnessed in 911 Flat-Iron Building, New York city, this seventeenth day of September, A. D., 1908.

HERBERT M. HOLTON.

In the presence of—
EDWD. VAN WINKLE,
MARGUERITE ROSS.