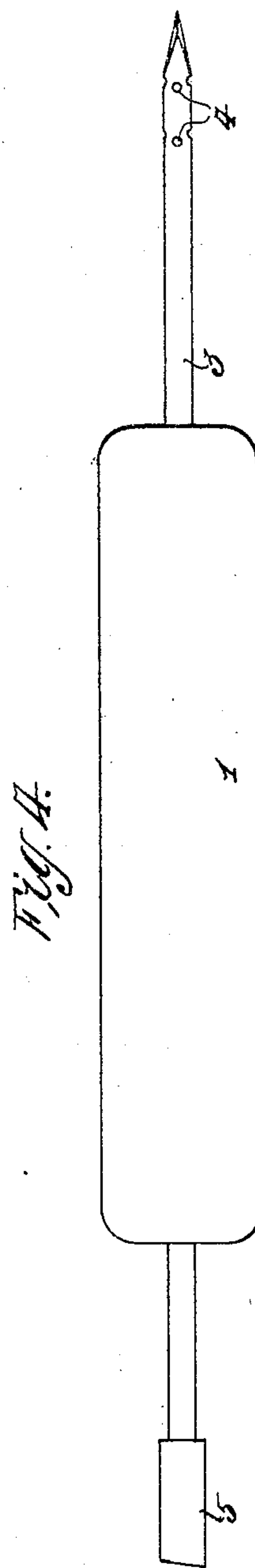
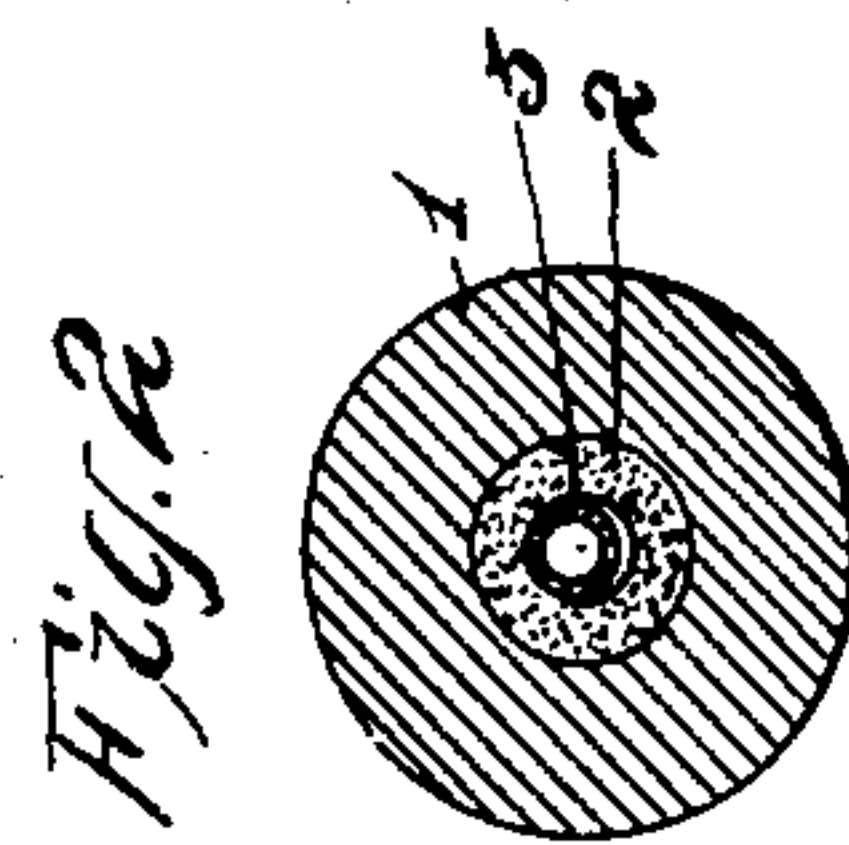
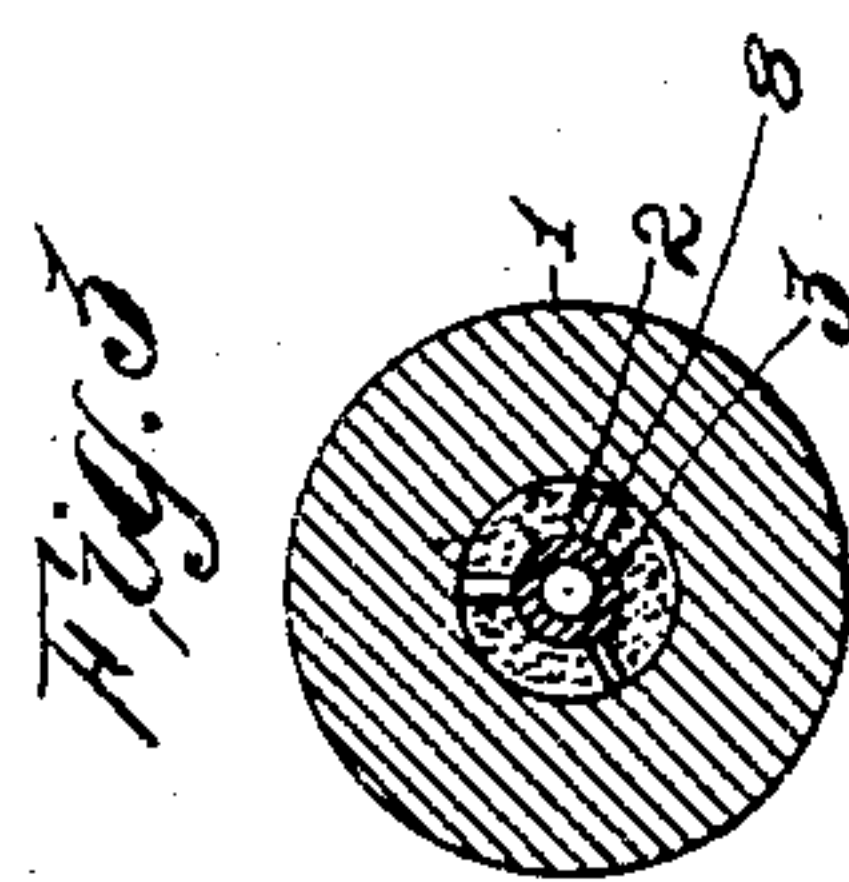
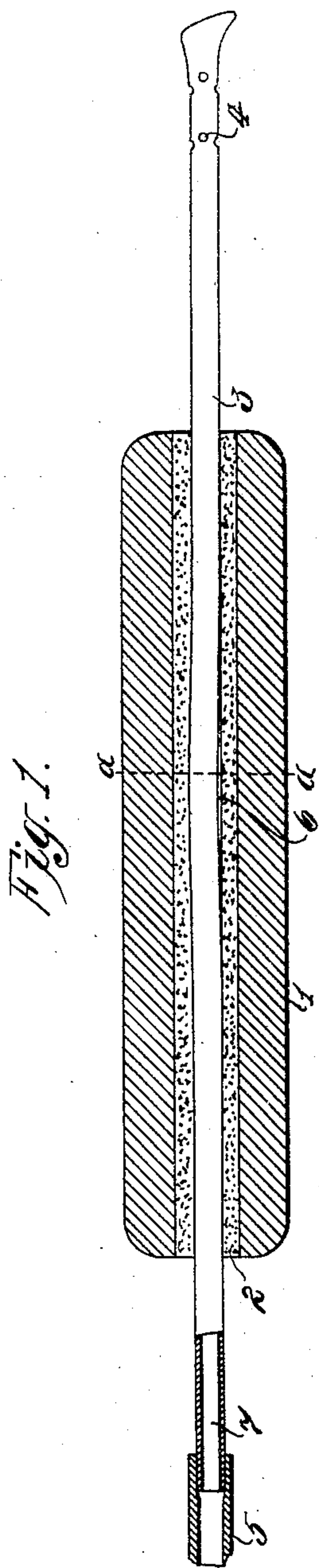


No. 779,938.

PATENTED JAN. 10, 1905.

H. HOLTON.  
PYROGRAPHIC TOOL.  
APPLICATION FILED DEC. 21, 1903.



Witnesses  
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# UNITED STATES PATENT OFFICE.

HERBERT HOLTON, OF NEW YORK, N. Y.

## PYROGRAPHIC TOOL.

SPECIFICATION forming part of Letters Patent No. 779,938, dated January 10, 1905.

Application filed December 21, 1903. Serial No. 185,959.

*To all whom it may concern:*

Be it known that I, HERBERT HOLTON, a resident of the city of New York, Manhattan borough, county and State of New York, have invented certain new and useful Improvements in Pyrographic Tools, of which the following is a specification.

My invention relates to pyrographical or wood-charring tools, and has for its object to provide a simple and inexpensive tool of this character which will effectively perform the functions required of such tools and wherein a shield is provided of novel construction, as will hereinafter more fully appear.

To these ends the invention consists in the novel features of improvement and combination and arrangement of parts hereinafter described, and summarized in the appended claims.

Reference is to be had to the accompanying drawings, forming part hereof, wherein—

Figure 1 is a longitudinal central section of a pyrographic tool embodying my invention. Fig. 2 is a cross-section thereof, the section being taken on the line *a a* in Fig. 1. Fig. 3 is a cross-section of a pyrographic tool wherein the shield is provided with a modified form of core, and Fig. 4 is an elevation showing the exterior of the tool.

Similar numerals of reference indicate corresponding parts in the several views.

Referring to the accompanying drawings, 3 indicates a metallic gas-tube provided with the usual burning-point and gas jets or orifices 4, the opposite end 7 of this tube being connected or coupled to the usual rubber tubing 5, attached to a source of gas-supply. Surrounding the tube 3 is a tubular shield 1, preferably made of wood or other light material and of tubular construction, and I provide the bore of this shield with a comparatively thin lining or layer of non-conducting material, as asbestos or analogous fireproof substance. This asbestos lining is embedded in the bore of the shield in suitable manner so as to firmly adhere thereto, and to provide against displacement of the shield upon the

tube 3 by wear or warping of the bore I construct the tube 3 with a gradual curve or bend, as at 6, so that the tube at this curved or bent portion will bind or impinge against the wall of the bore of the shield, thus dispensing with separate retaining means for this purpose.

In Fig. 3 I have shown in cross-section a modified form of shield with fireproof lining of asbestos, the latter in this instance instead of entirely lining the wall of the bore of the shield is arranged therein in longitudinal strips or sections throughout the length of the shield, thereby providing between the strips or sections spaces or channels 8, through which the hot air generated by the heated metal tube 3 may escape to the atmosphere; but the said air-channels may be provided in the bore of the shield by forming longitudinal or sinuous depressions therein.

Having now described my invention, what I claim is—

1. The combination with a pyrographical tool, of a removable shield having a bore throughout its length lined with a comparatively thin layer of fireproof material, as asbestos, substantially as and for the purpose described.

2. A pyrographical tool, comprising a metallic tube provided with the usual operating-point, and a removable shield or sleeve thereon, the bore of which is provided with a comparatively thin lining of fireproof material throughout substantially the length thereof, substantially as and for the purpose described.

3. A pyrographical tool, comprising a metallic tube provided with the usual operating-point and gas-orifices, a shield or sleeve thereon, the bore of which is provided with a comparatively thin lining or layer of fireproof material, said tube being slightly bent intermediate its ends to bind the same against movement within the bore of the shield.

4. A pyrographical tool, comprising a tube provided with the usual operating-point and gas-orifices, a shield or sleeve surrounding the tube, and layers or strips of fireproof mate-



rial, as asbestos, surrounding the tube and lining the bore of the shield or sleeve so as to provide longitudinal air spaces or channels.

5. A pyrographical tool, comprising a tube provided with the usual operating-point and gas-orifices, a shield or sleeve thereon, provided with a lining of non-heat-conducting material, as asbestos, disposed in longitudinal

strips or sections within the bore of the shield, providing longitudinal passages or channels between the strips or sections, as and for the purpose described.

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