

No. 769,936.

PATENTED SEPT. 13, 1904.

J. F. BURNS.
PYROGRAPHICAL INSTRUMENT.

APPLICATION FILED FEB. 26, 1904.

NO MODEL.

Fig. 1.

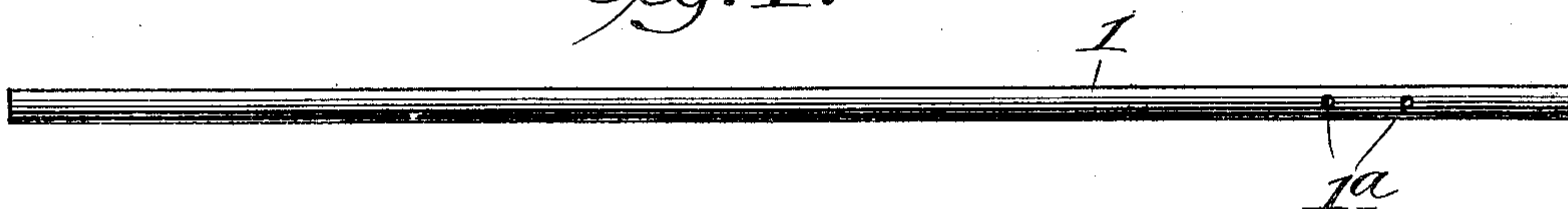


Fig. 2.

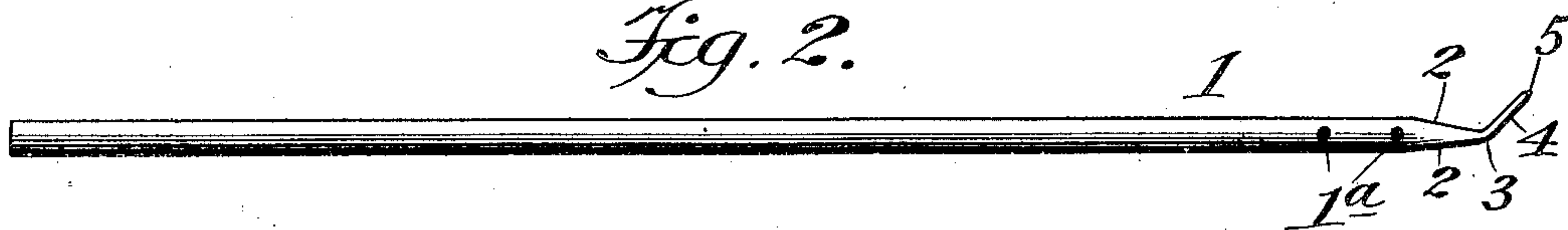


Fig. 3.

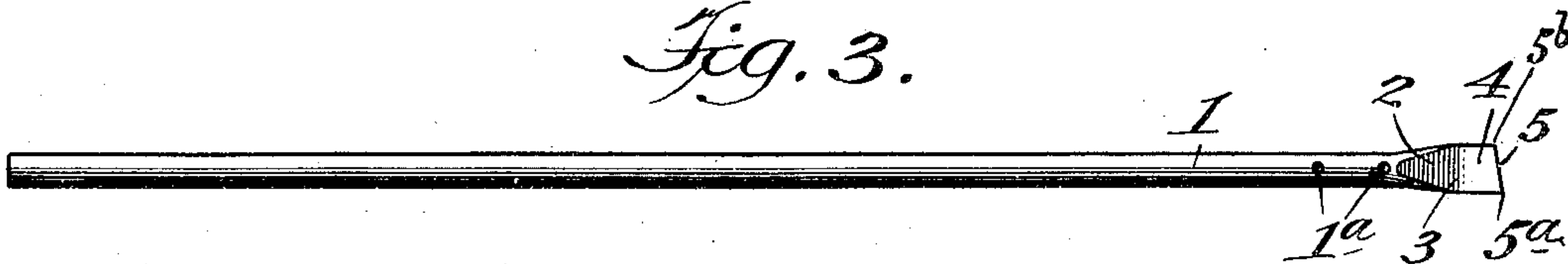
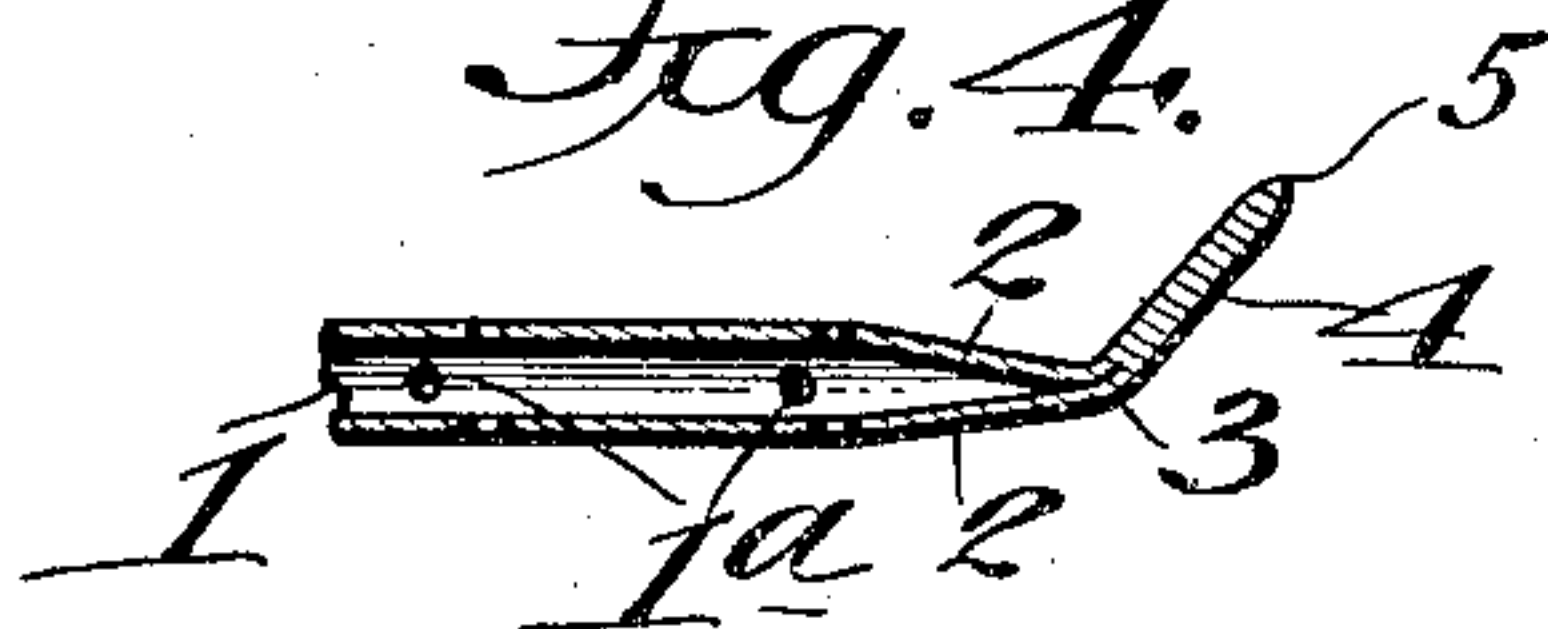


Fig. 4.



WITNESSES

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PYROGRAPHICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 769,936, dated September 13, 1904.

Application filed February 26, 1904. Serial No. 195,329. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH F. BURNS, a resident of Brooklyn, in the county of Kings, in the State of New York, have invented certain new and useful Improvements in Pyrographical Instruments, of which the following is a specification.

My invention relates to what are known as "the burning needles or points" of pyrographical instruments employed in charring wood, leather, or the like, and has for its object to provide a durable, cheap, and efficient device of this character having a burning or charring point of novel construction whereby the operator will be enabled to manipulate the same with precision and effectiveness.

To these and other ends, which will hereinafter appear, my invention consists in the novel features of improvement hereinafter set forth and finally summarized in the appended claims.

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

Figure 1 is a side elevation of a metallic tube from which my improved device is constructed. Fig. 2 is a similar view of a burning-needle constructed in accordance with my invention. Fig. 3 is a plan view thereof, and Fig. 4 is a longitudinal central section of the lower portion thereof.

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

In constructing my improved burning-needle I take a metallic tube 1 of suitable size and thickness and taper the same near one end thereof, as at 2, and at this tapered end I provide a flattened portion 4, projecting from the point 3 of the tapered portion at an angle thereto, as shown in Figs. 1 and 4. The entire operation of producing the tapered and flattened portion described is preferably accomplished by swaging or compressing one end of the tube by suitable swaging devices to produce the desired taper and thickness and bend.

1^a indicates suitable gas jets or orifices near the operating end of the needle, whereby the same is heated in well-known manner.

The extreme edge of the flattened portion

4 is preferably somewhat wider than the diameter of the tube and is by preference provided with a knife-like operating edge 5, providing also sharp operating corners or points 5^a 5^b, and the said edge 5 is preferably slightly slanted, (see Fig. 3,) whereby the corner or point 5^a will be somewhat sharper or more pointed than the corner or point 5^b for producing different effects on the articles operated upon.

The flat operating-surface 4 of my improved needle enables the operator to char or burn large sections of wood or the like with great rapidity, and in connection with the points 5^a 5^b he will be enabled to produce varied charring effects with this single burning-needle, and thus dispense with the use of independent needles or points for producing fine and broad lines.

It will of course be understood that instead of providing the entire tube and point, as shown and described, I may embody my invention in point-sections to be applied to pyrographic tools or instruments of well-known construction.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A burning-needle for pyrographical purposes, comprising a metallic tubular body portion provided with a bent flattened end having operating corners or points and an operating edge.

2. A burning-needle, comprising a metallic tube having a bent tapered flattened end provided with a sharp operating edge, and with gas-orifices near said end.

3. A burning-needle, comprising a metallic tubular body provided with gas-orifices and with an end portion bent at an angle to said body, said end portion presenting a comparatively broad flat burning-surface with two operating points or corners.

4. A burning-needle comprising a metallic tube swaged and bent at one end at an angle to the body thereof to form a comparatively broad and flat operating-point.

5. A burning-needle comprising a metallic tube swaged and bent at one end to form a

broad and flat angular operating-point, the tube being provided with gas-orifices near the operating-point.

6. A burning-needle of the character described, comprising a metallic tube swaged and bent at one end at an angle to the body thereof to form a flat operating-point, the tube being provided with suitable gas-orifices, and the said operating-point being provided with a knife-like edge presenting two operating points or corners.

7. A device of the character described having a flat burning-surface at one end at an angle to the body of the device, gas-orifices

near said end, said flat burning-surface being provided with two operating-points. 15

8. A device of the character described, comprising a metallic tube provided with gas-orifices near one end, a tapered portion near said end, and a comparatively broad flat burning-point projecting at an angle from said tapered portion, the outer edge of said burning-point having two operating-corners, substantially as and for the purpose described. 20

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Witnesses:

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