

(No Model.)

A. SCHNEIDER.  
TOOL FOR USE IN POKER WORK.

No. 597,746.

Patented Jan. 25, 1898.

Fig. 1.

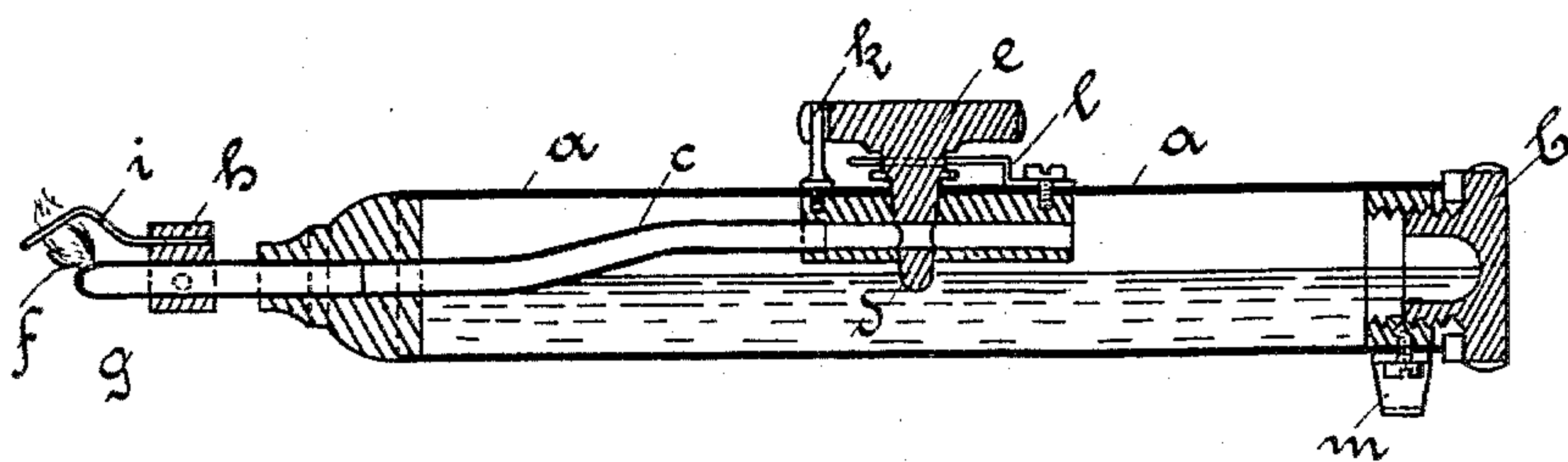


Fig. 2.

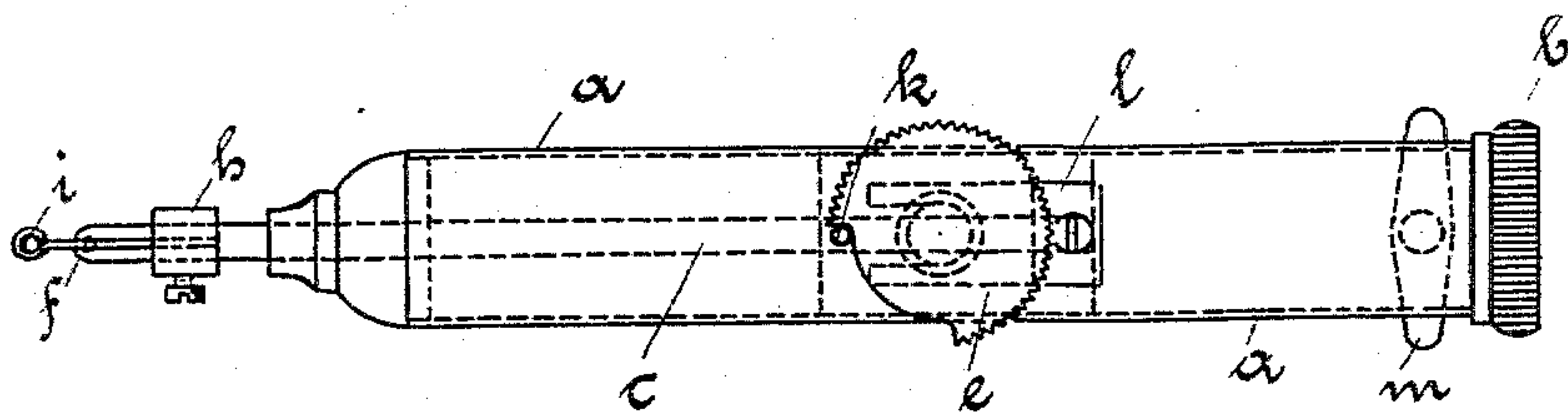
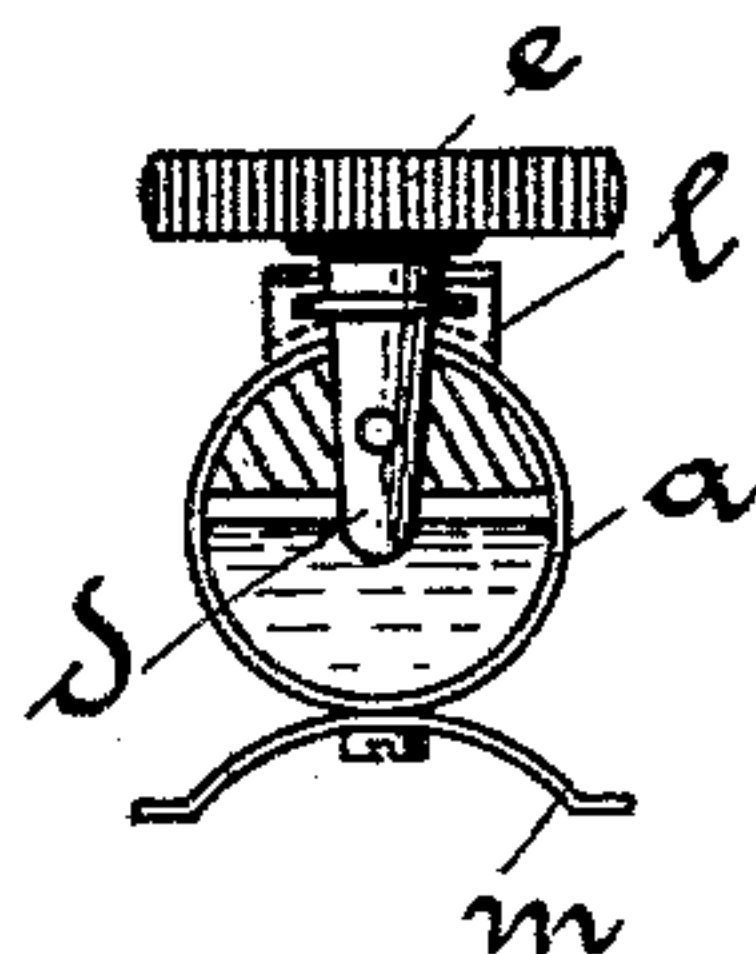


Fig. 3.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ADOLF SCHNEIDER, OF DRESDEN-STRIESEN, GERMANY.

## TOOL FOR USE IN POKER-WORK.

SPECIFICATION forming part of Letters Patent No. 597,746, dated January 25, 1898.

Application filed February 16, 1897. Serial No. 623,693. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLF SCHNEIDER, a subject of the King of Saxony, residing at Dresden-Striesen, Germany, have invented certain new and useful Improvements in Tools for Use in Poker-Work, of which the following is a specification.

The present invention relates to a tool provided with a sulfuric-ether-heating device for the production of designs upon wood by burning or charring, commonly called "poker-work," in which such an arrangement is made that the vapors of sulfuric ether produced by the heat of the hand of the user and issuing from the point of the tool and ignited there heat a wire loop to a red heat, so that the desired burned-in designs or pictures are produced by the contact of said wire loop with the wood or other material.

In the wood-burning tools hitherto used a platinum wire has been heated by means of a thin flame produced by a blower or vapor-producer actuated by hand, in which methylated spirits or gas has been used. Such arrangement has the disadvantage of necessitating the use of both hands of the operator, there being two devices, one hand operating the rubber or other blower and the other guiding the tool, and as soon as a sufficient quantity of air ceases to be supplied to the apparatus the flame goes out and the platinum wire loses its incandescence.

The present invention enables the operator to work very quickly and easily by having a vapor-producer always ready for action and connected directly to the part to which the wire loop is secured. Sulfuric ether is found to be very suitable as the heating or vaporizing medium on account of its being capable of vaporization by the heat of the hand.

Figure 1 of the accompanying drawings illustrates the apparatus in sectional elevation, Fig. 2 being a plan and Fig. 3 a cross-section.

The working of the device is as follows: A cylinder *a*, closed on all sides, is filled to about half of its volume with sulfuric ether, the closing-screw *b* being removed for this purpose and the admission of liquid ether into the tube *c* being prevented, as by turning the pin *d*. Having closed the cylinder *a* by replac-

ing the screw-cap *b*, a pin *d*, forming the plug of a cock of the regulating device *e*, is turned so that the vapors produced in the cylinder *a* by the heat of the user's hand may enter into the pipe or extension *c*. These vapors escape into the atmosphere through an opening *f* of a nozzle *g*, fitted to the front end of the pipe *c*, and when lighted burn with a blue flame, thereby causing the wire loop *i*, secured to an interchangeable holder *h*, to become strongly incandescent.

If the tool is to be made inoperative, it is sufficient to turn the regulating device *e*, which is limited by a pin *k* and guided by a fork *l*, through a quarter of a revolution, whereby the cock-plug *d* will be closed.

By the described adjustment of the plug *d* the supply of vapor to the pipe *c* may be regulated so as to obtain in the engraving or burning light or dark lines, as required, of any desired length.

In order to prevent the liquid sulfuric ether from entering into the pipe *c* during the time that the instrument is not in use, there is arranged on its lower surface a foot *m*, insuring a proper position of the cylinder *a*.

I claim—

1. A tool for use in poker-work or engraving upon wood by burning comprising an ether-vaporizing chamber, a tube communicating at one end with the interior of said chamber and provided at the other end with a perforated nozzle extending exteriorly of the said chamber, a regulating-plug arranged in the tube within the chamber and extending through the latter and adapted to be operated from the outside of such chamber, a wire-holder, and a wire carried by said holder in proximity to the perforation of the nozzle.

2. A tool for use in poker-work or engraving upon wood by burning, consisting of an ether-vaporizing chamber *a*, cap *b*, tube *c*, valve *d*, nozzle *g*, holder *h*, and wire *i* substantially as and for the purpose described.

In testimony whereof I have hereto set my hand in the presence of the two subscribing witnesses.

ADOLF SCHNEIDER.

Witnesses:

RUD. SCHMIDT,  
HERMANN GÖHRING.