

No. 658,591.

Patented Sept. 25, 1900.

J. SCHLEGEL.

CHARRING TOOL FOR ORNAMENTING WOOD.

(Application filed Nov. 13, 1899.)

(No. Model.)

Fig: 1.

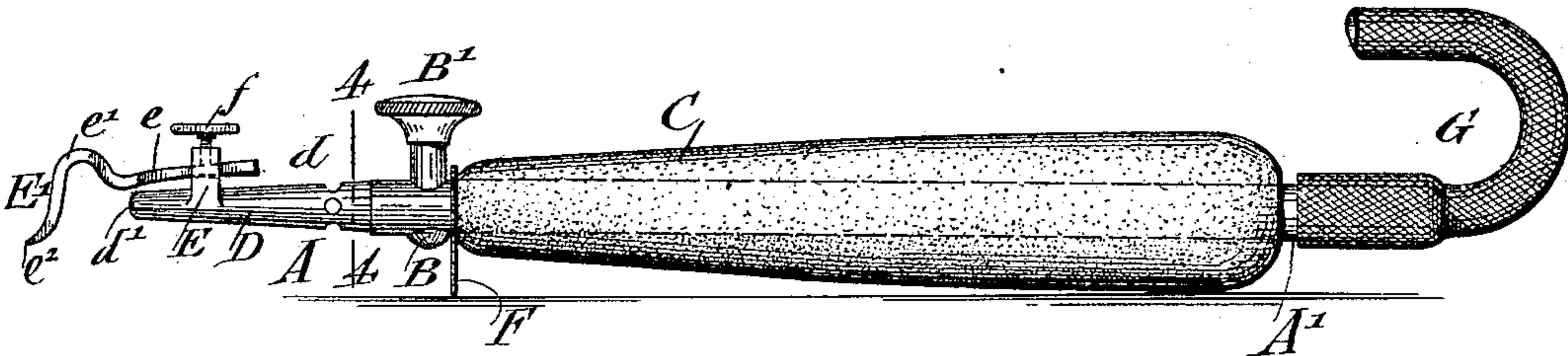


Fig: 2.



Fig: 3.

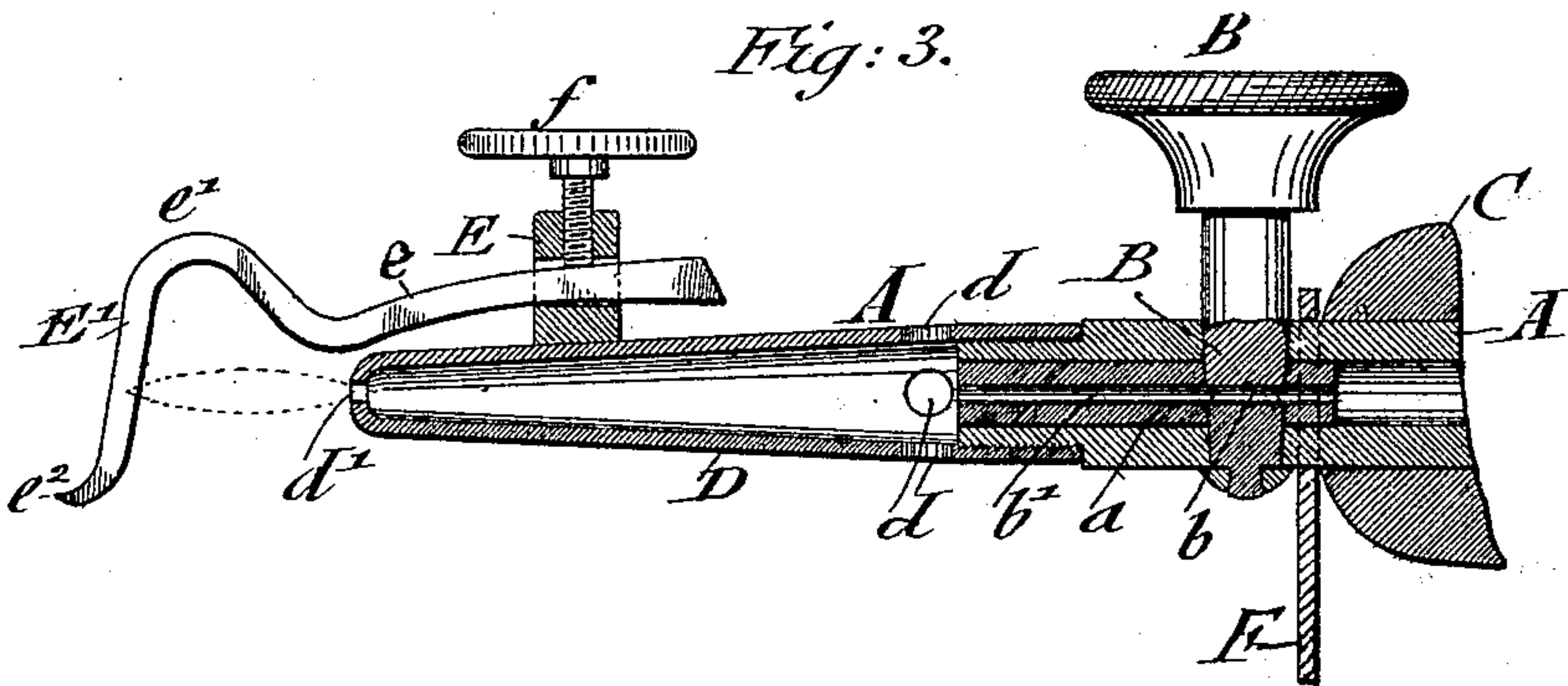
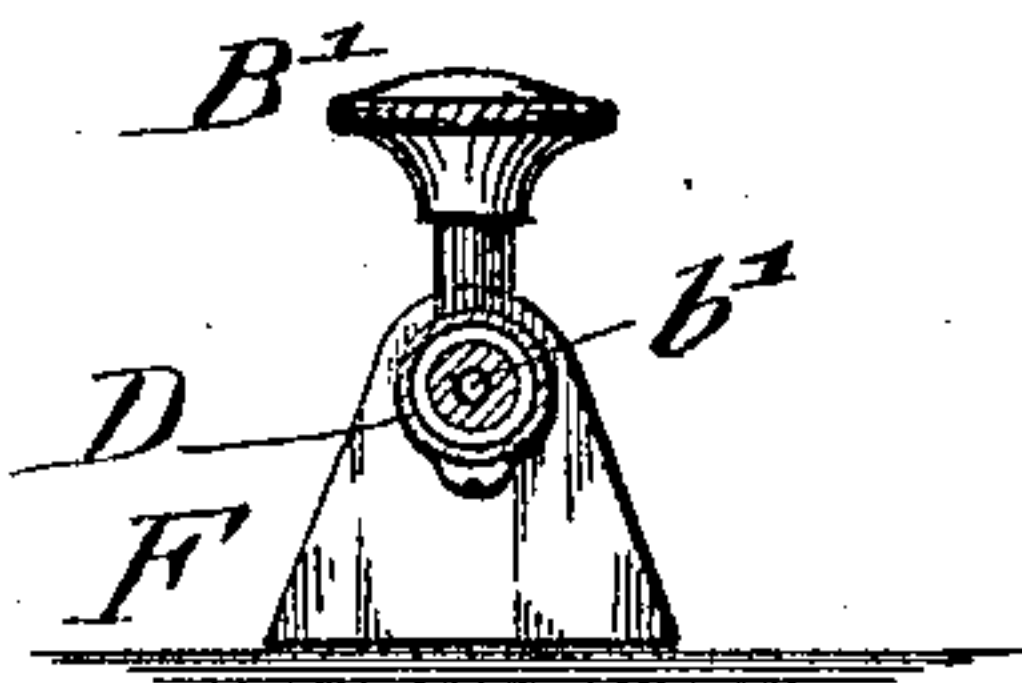


Fig: 4.

WITNESSES:
W. H. Murtzfeld
Frank & Lewis



INVENTOR
John Schlegel
BY *Frank & Lewis*
ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN SCHLEGEL, OF NEW YORK, N. Y.

CHARRING-TOOL FOR ORNAMENTING WOOD.

SPECIFICATION forming part of Letters Patent No. 658,591, dated September 25, 1900.

Application filed November 13, 1899. Serial No. 736,784. (No model.)

To all whom it may concern.

Be it known that I, JOHN SCHLEGEL, a citizen of the United States, residing at New York, borough of Manhattan, State of New York, have invented certain new and useful Improvements in Charring-Tools for Ornamenting Wood, of which the following is a specification.

This invention relates to that class of tools which are used for branding purposes and by which a design may be burned in wood, leather, &c., as in pyrography, so that the charred delineations in the wood, patterned after some suitable design, produces what is known as a "pyrogravure."

The object of the invention is to simplify devices of the described class and to provide a tool which is both durable and economical and which is specially designed for the use of amateurs.

My invention consists of certain features of construction to be hereinafter described and then claimed.

In the accompanying drawings, Figure 1 is a side elevation of the charring-tool. Fig. 2 is a plan of the same. Fig. 3 is an enlarged longitudinal section of the front portion of the same; and Fig. 4 is a section on line 4 4, Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A indicates a Bunsen burner provided with a gas-supply tube or tubular extension A', in the plugged end *a* of which turns a regulating-valve B, having a minute transverse opening *b*, which is adapted to register with the minute gas passage or orifice *b'* through the plug *a*. The regulating-valve B is provided with a head or button B', preferably of non-conducting material, such as vulcanized fiber, and whereby the valve may be turned, so as to regulate the size of the flame. The tubular extension A' of the Bunsen burner is in line with the mixing-tube and is of such length as that a sleeve C, of cork or other suitable material, may be placed thereover to form a handle or grip. By making the sleeve C of non-conducting material the hand is prevented from being burned. The outer end of the plug *a* is screw-threaded, so as to receive a female thread on the mixing-tube D, provided adjacent to the

orifice *b'* with air-inlet openings *d* and at its outer end with a jet-orifice *d'*, so that said mixing-tube will form an aligned continuation of the elongated tubular portion A' of the Bunsen burner.

A post or socket-piece E projects from one side of the forward end of the mixing-tube D and receives the tail end *e* of a charring-stylus E', a set-screw *f* being screwed into the socket, so as to bear against the tail end *e*, and thereby hold the stylus in position. As clearly shown in Fig. 3, the stylus is humped up at *e'*, and its working end is formed with a laterally and outwardly projecting toe *e''*. The directly-heated portion of the stylus between the hump *e'* and the toe *e''* is slightly inclined relatively to a line perpendicular to the axis of the Bunsen burner and is located in line with said axis; but the working toe *e''* is at one side of the jet-orifice *d'* of the burner and does not receive the direct flame for evident reasons. The V-shaped middle portion of the stylus—that is, its humped portion—is for the purpose of bringing the portion to be heated in line with the Bunsen burner, so that the flame strikes said portion above the toe *e''*. Said humped or V-shaped portion has its branch between the approximately-straight tail end *e* and its apex of less length than the other branch, while the parts of the stylus all lie in substantially one plane, at nearly right angles, so that the flame is not deflected toward the toe, but envelops the stylus at the point of contact.

By means of the set-screw *f* the stylus E' may be readily adjusted toward or away from the jet-orifice of the burner, so that the same may be heated up to a greater or less degree, according to requirements. When the stylus is hottest, the shades may be put in, as the wood will be considerably charred and blackened, while the lights may be put in when the stylus is farthest from the jet-orifice, as it will simply scorch or discolor the wood. The point of the stylus may also be heated to a greater extent than if its tail end *e* were straight, owing to the fact that the same is slightly curved or inclined, so that the farther the stylus is moved in the nearer will the toe *e''* be moved toward the axis of the burner.

Projecting laterally from the side of the

Bunsen burner adjacent to its valve—that is to say, at the forward end of the tubular extension A'—is a rest-piece F, which is broad at the base, so as to hold the tool steady when
5 rested upon a table or work-bench.

When the tool is to be used, it is attached to ordinary gas-tubing G, of course leading from a suitable gas-supply, and the valve opened, so that a suitable quantity of gas and
10 air will, as usually in Bunsen burners, be mixed within the mixing-tube D. The mixed air and gas is now lighted and the stylus heated, the flame being regulated by the valve.

The rest-piece F has the advantages that the tool can be rested on a supporting-surface without injury thereto, that the flame does not have to be extinguished each time the tool is laid down, and that the stylus may
20 be always kept heated for use, no matter what interruption in the work may require the laying down of the tool.

The parts of the tool are few, and conse-

quently the tool is simple and can be readily directed, so that the burning of the design 25 or device in the wood can be accomplished with facility and a superior pyrogravure produced.

Having thus described my invention, what I claim as new, and desire to secure by Letters 30 Patent, is—

The herein-described charring-stylus, consisting of an approximately-straight tail end, a V-shaped intermediate portion, having
35 branches of unequal length, neither branch being in line with the tail end and a forwardly-bent toe on the longer branch, said parts being practically in one plane, substantially as set forth.

In testimony that I claim the foregoing as 40 my invention I have signed my name in presence of two subscribing witnesses.

JOHN SCHLEGEL.

Witnesses:

PAUL GOEPEL,
GEO. L. WHEELOCK.