(No Model.)

D. A. BROWN, C. V. KLIPPERT & L. J. VOGT.

DEVICE FOR HEATING SHOE MAKERS' TOOLS.

No. 428,069. Patented May 20, 1890.

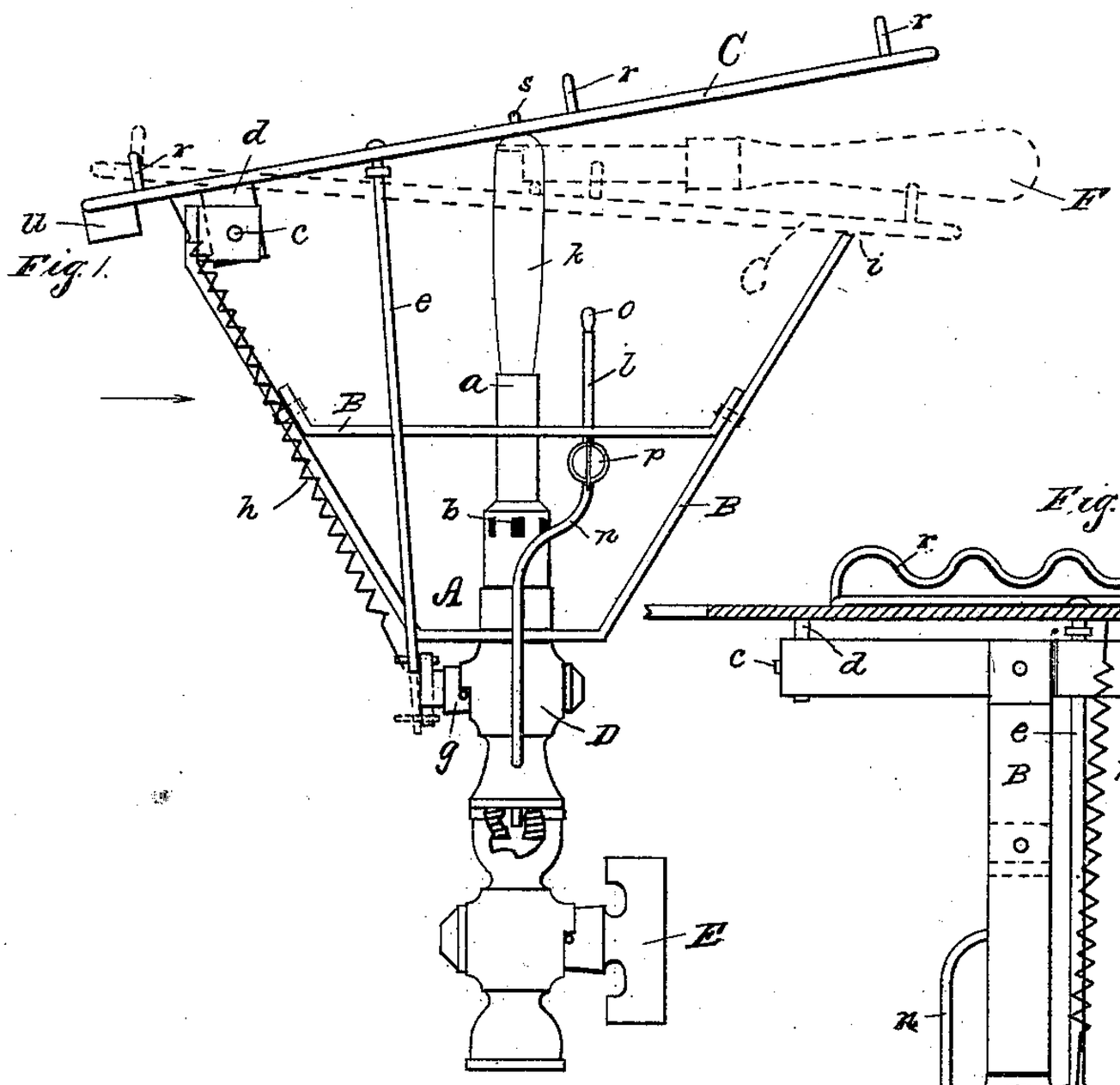


Fig. 3.

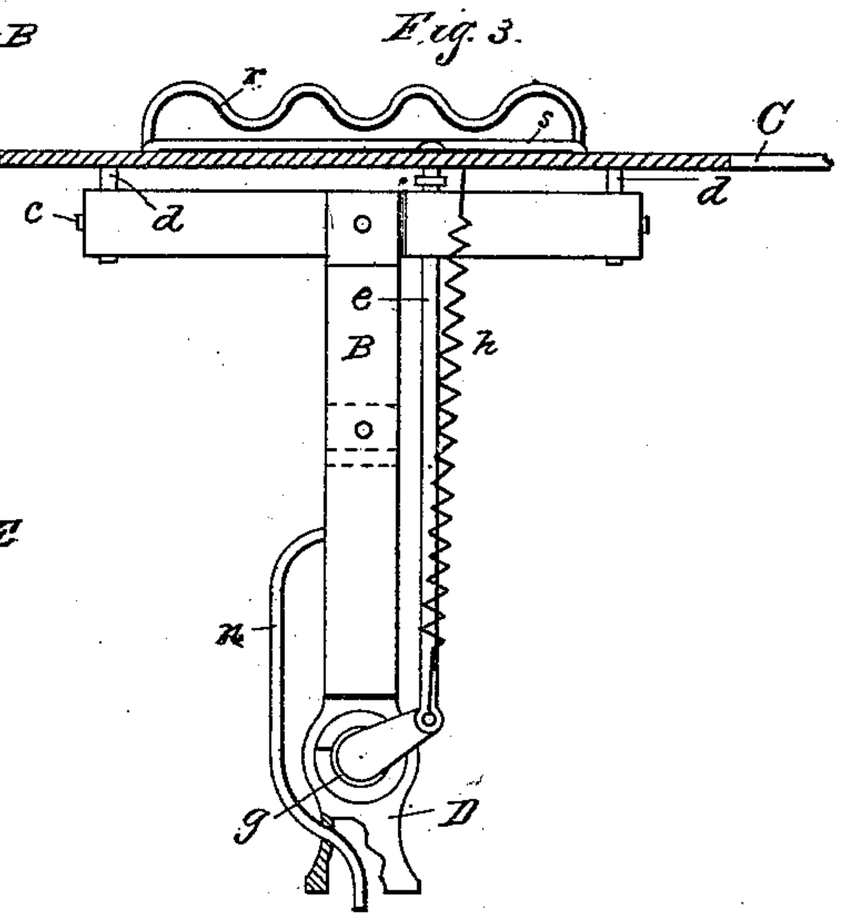
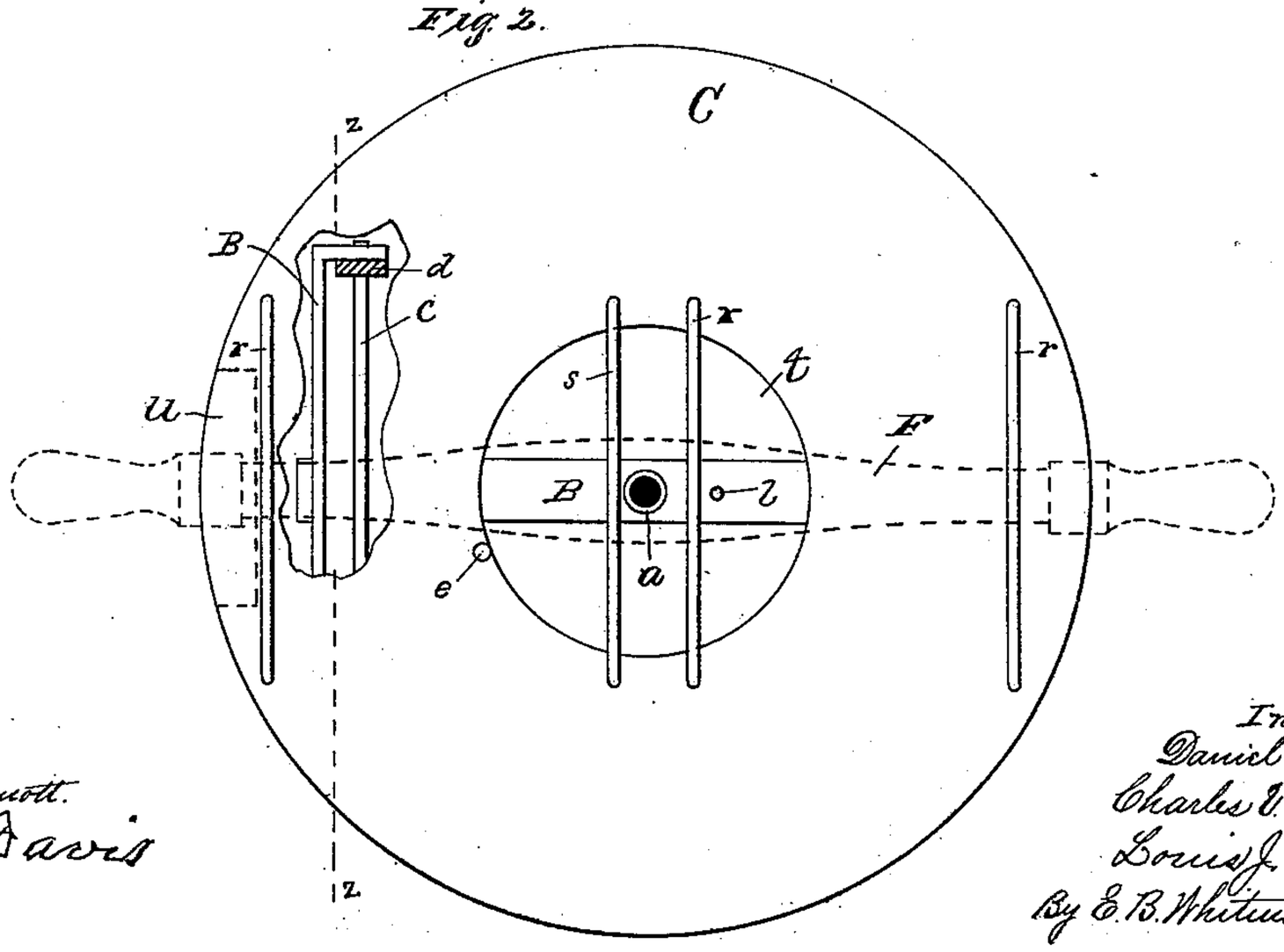


Fig. 2.



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UNITED STATES PATENT OFFICE.

DANIEL A. BROWN, CHARLES V. KLIPPERT, AND LOUIS J. VOGT, OF ROCHESTER, NEW YORK; SAID BROWN ASSIGNOR TO ERASTUS U. ELY, OF SAME PLACE.

DEVICE FOR HEATING SHOE-MAKERS' TOOLS.

SPECIFICATION forming part of Letters Patent No. 428,069, dated May 20, 1890.

Application filed August 15, 1889. Serial No. 320,903. (No model.)

To all whom it may concern:

Be it known that we, DANIEL A. BROWN, CHARLES V. KLIPPERT, and LOUIS J. VOGT, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Devices for Heating Shoe-Makers' Tools, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

This invention is a machine designed more particularly for heating tools for shoe-makers' use, the object of the invention being to produce a machine by which the heating-flame will exist only when a tool is placed on the machine for the purpose of heating it, and be extinguished immediately after the tool is removed and when the flame is not needed.

The invention is hereinafter fully described, and more particularly pointed out in the claims.

In this machine for heating tools ordinary illuminating-gas mixed with common air is preferably used, as in the Bunsen burner.

Referring to the drawings, Figure 1 is a side elevation of our improved tool-heater, parts being shown in two positions by full and dotted lines; Fig. 2, a plan of the holding-plate with a part broken away; and Fig. 3, an elevation of the machine, seen as indicated by arrow in Fig. 1, the holding-plate being shown in a horizontal position, the section being taken on the dotted line *z z* in Fig. 2.

Referring to the parts shown in the drawings, A is a conveyer or pipe for the gas, and B a simple frame rigid with the conveyer. The frame is employed to support a horizontal holding-plate C, upon which the tools are placed to be heated. The conveyer A is composed of a tip or burner *a*, formed with perforations *b*, to admit external air, and a gas-cock D, having its exit end inserted in the base of the tip *a*. The conveyer A is connected with any convenient gas-supply pipe by a gas-cock E, of common construction.

The holding-plate C is preferably made circular in form, with a circular hole *t* at the center over the burner, and is joined to the frame by means of a pivot-rod *c*, passing through hangers *d*, rigid with the plate, so as to swing vertically or tilt, as indicated in Fig. 1. A connecting-rod *e* connects the holding-plate with the plug *g* of the gas-cock D. By this means, when the holding-plate is moved downward or upward, the cock D will be opened or closed to admit gas up through the tip *a* or cut it off therefrom. A spring *h*, joined to the plug *g* and to the holding-plate, tends to keep the latter in its upward-tilted position, as shown by full lines in Fig. 1. A weight *u* on the plate C will answer the same purpose as the spring, and in some cases it is preferable to the spring. When the plate is depressed, the spring is strained, and returns the plate to its upper position when the latter is unloaded. Now, the parts are so constructed and proportioned that the weight of the tool F, when placed upon the plate, as shown by dotted lines, will depress the plate to a position in which it rests upon the frame at *i*, which forms a stop or support for the plate thereat.

When the tool to be heated is placed upon the plate and depresses the latter, it opens the cock D and causes a heating-flame *k* to project up against the point of the tool. When the tool is removed, the spring or weight returns the plate to its normal position and closes the cock D. The gas at the exit of the tip is ignited each time by a lighter *l*. This lighter consists of a slender tube *n*, inserted in the conveyer A below the gas-cock D, which admits of a constant flow of a small quantity of gas to supply the small lighting-jet *o*. This lighter is supplied with a cock *p*, to close the passage through the tube, if at any time necessary. When the heater is not in use, gas may be entirely cut off therefrom by means of the cock E.

Corrugated rests *r* are secured to the upper surface of the holding-plate, upon which to lay the tools to be heated. To prevent heavy tools from falling through the hole *t*, a bar *s* is provided to cross the hole, as shown. The spring is shown joined at its lower end to the plug *g* and at its upper end to the plate C. This, however, is a mere matter of convenience of construction. The lower end of the spring may as well be joined to the lower part

of the frame B at some convenient point and serve equally well to tilt the plate.

This machine may of course be used for heating other than shoe-makers' tools, and be used also in the sick-room or nursery for heating medicines or liquids of any kind in small quantities.

What we claim as our invention is—

1. In a machine for heating tools, a disk or plate C, provided with lugs projecting from its under surface, a supporting-frame formed to meet the lugs, and a pivot-rod for the plate piercing the lugs and the frame, in combination with a gas tip or burner below the plate, a gas-cock in the burner under the plate, a rod connecting the plate and the gas-cock to turn the latter, and a weight secured to the plate to turn it upon the pivot-rod, substantially as shown.

2. In a machine for heating tools, an annular disk or plate provided with lugs projecting from its under surface, a supporting-frame formed to meet the lugs, and a pivot-rod for the plate piercing the lugs and the frame, in combination with a burner under the plate, a gas-cock in the burner, a connection for the plate and the gas-cock, a weight to turn the plate upon the pivot-rod, and tool-rests secured to the upper surface of the plate, substantially as shown and described.

3. A machine for heating tools, consisting of a tilting plate or disk formed with an opening at the middle thereof, in combination with a supporting-frame for the plate, a burner under the opening in the plate, a gas-cock in the burner, a connection for the plate and the gas-cock, a spring to tilt the plate, tool-rests secured to the upper face of the disk or plate, and a bar or guard *s*, crossing the opening in the disk or plate, substantially as shown, and for the purpose set forth.

In witness whereof we have hereunto set our hands, this 24th day of June, 1889, in the presence of two subscribing witnesses.

DANIEL A. BROWN.
CHARLES V. KLIPPERT.
LOUIS J. VOGT.

Witnesses:
M. L. McDERMOTT,
Z. L. DAVIS.