

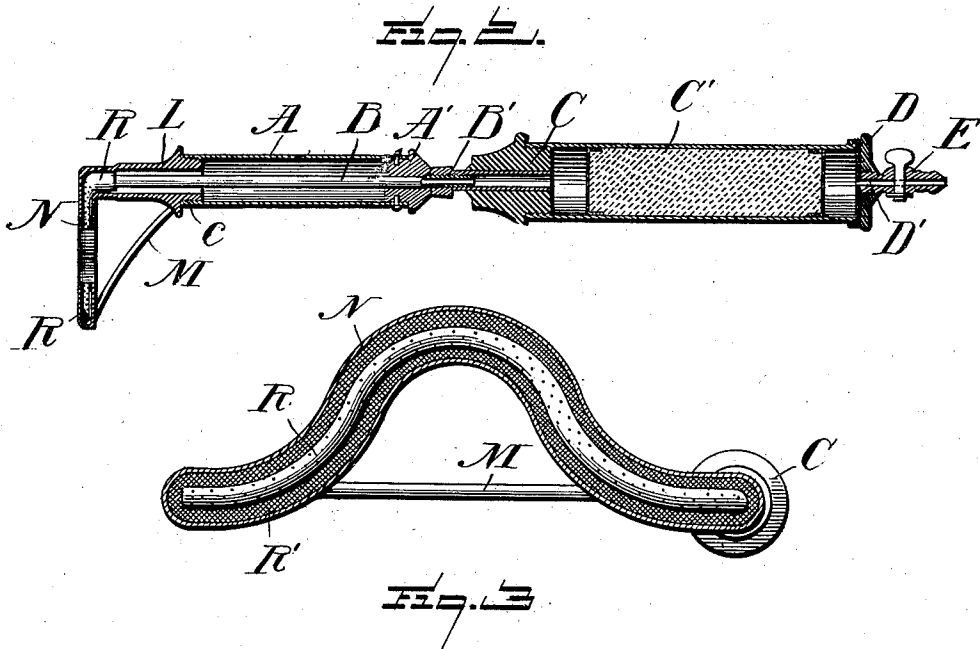
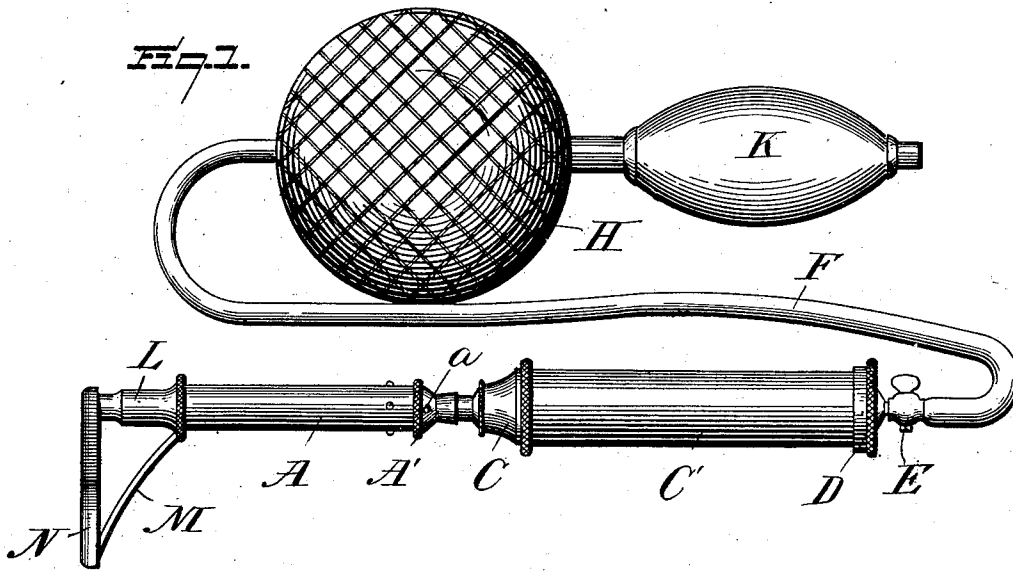
No. 662,922.

Patented Dec. 4, 1900.

W. B. DUDLEY.  
BRANDING IRON.

(Application filed Feb. 24, 1900.)

(No Model.)



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

WILLIAM B. DUDLEY, OF HOT SPRINGS, SOUTH DAKOTA.

## BRANDING-IRON.

SPECIFICATION forming part of Letters Patent No. 662,922, dated December 4, 1900.

Application filed February 24, 1900. Serial No. 6,408. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. DUDLEY, a citizen of the United States, residing at Hot Springs, in the county of Fall River and State of South Dakota, have invented certain new and useful Improvements in Branding-Irons; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in branding-irons, and especially to a device of this character in which gas is introduced to produce heat, whereby the iron may be kept at a high degree of temperature while the tool is in use, the gas being forced into the interior of the hollow branding-iron, where it is ignited, and the products of combustion escaping through ports in the cylinder which is connected to the iron and through which cylinder the gas-supply tube passes, being connected at one end to a gasolene-supply chamber.

More specifically the present invention resides in the provision of a branding-iron which is hollow and formed into the shape of any figure, letter, or character and containing a perforated inner tube through which the gas is forced and designed to be ignited by the branding-iron, which has been previously heated to a high degree of temperature, the circumference of the inner tube being surrounded by a platinum-wire gauze to evenly distribute the gas, and means being provided to allow the products of combustion to escape through apertures in the cylinder which is connected to the branding-iron and through which cylinder the gas-supply pipe passes.

To these ends and to such others as the invention may pertain, the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be herein more fully described, and then specifically defined in the appended claims.

My invention is clearly illustrated in the accompanying drawings, which, with the let-

ters of reference marked thereon, form a part of this application, and in which—

Figure 1 is a perspective view of my improved branding-iron, showing a gasolene-supply chamber and bulb connected thereto. Fig. 2 is a central longitudinal sectional view through the cylinder connected to the branding-iron. Fig. 3 is a sectional view through the branding-iron, showing the perforated pipe about which a platinum-wire gauze is wound.

Reference now being had to the details of the drawings by letter, A designates a cylinder having a cap A' securely fitted to one end thereof, said cap having integral therewith a central tube B, adapted to extend centrally through the cylinder A and project through the opposite end of the cylinder, as shown. The opposite end of said tube is threaded; as at B', and extends outside of the cap, and to this threaded end of the tube is designed to be connected the threaded neck C of the gasolene-receptacle C'. To the opposite end of the gasolene-receptacle is fastened a screw-threaded cap D, having a hollow stem D', in which is a petcock E, and to the end of said stem is adapted to be connected a hose F, which in turn is connected to and communicates with the air-chamber H, to which a supply of air is furnished from the flexible bulb K.

One end of the cylinder A is interiorly screw-threaded adapted to receive the threaded end of the hollow member L, to which the branding-iron N is fastened. This branding-iron N may be made of any shape, as in the form of a letter, figure, or character, and the outer end of the iron is connected to a brace M, whereby the iron may be securely held rigidly and at a right or other angle to the member L. This branding-iron is hollow, and a tube R passes centrally and longitudinally through same nearly its entire length, said tube being circumferentially perforated and wound about by a platinum-wire gauze R'. Between the member L and the tube R, at the point of connection of the iron with said member, is a space through which the products of combustion pass from the interior of the branding-iron into the cylinder A, from which they are allowed to escape through the

apertures *a a* in the cap *A'*. The outer end of the central perforated tube *R* is bent at an angle and extends a short distance through the hollow member *L* and forms a socket to receive the end of the tube *B* when the member *L* has been screwed into the threaded end of the cylinder *A*, thus making when connected together a continuous passage-way for the gas through the tubes *B* and *R* from the gasolene-supply reservoir.

In operation the receptacle or reservoir *C'* is filled with gasolene or other volatile liquid, and after the branding-iron has been previously heated to a high degree of temperature the operator by compressing the bulb, which has a valve of ordinary construction in its free end, allowing air to enter, but not escape, through the valve-regulated inlet, forces air from the bulb into the gasolene-chamber *H*, where the air passing through the fibrous filling saturated with gasolene will become laden with the latter, and the combustible mixture of gas and air is forced through the tube *B* to and through the perforated tube *R*, about which the platinum gauze is wound. This gauze, which is thoroughly heated, ignites the gas as it issues from said perforations and keeps the branding-iron heated. The products of combustion will escape through the cylinder *A* and out of the apertures *a* in the cap *A'*.

While the branding-iron illustrated shows a certain character, it is my purpose to have various characters representing figures, letters, &c., which are similarly constructed, and may be connected to the gasolene receptacle and bulb in the same manner as illustrated in the drawings.

Having thus described my invention, what

I claim to be new, and desire to secure by Letters Patent, is—

1. A branding-iron which is hollow, a hollow threaded member secured thereto, a central and circumferentially-perforated tube extending longitudinally into said iron, and through a portion of the length of said member, with a communicating passage-way about the outer surface of the inner tube, and the inner walls of the iron and said member, the hollow threaded cylinder designed to be connected to the threaded end of said member, and the central tube passing through said cylinder, and designed to communicate with the tube in the branding-iron, and means for supplying gas to the inner tubes, as set forth.

2. A branding-iron, comprising in combination with the hollow member *L* which is internally threaded, the hollow iron connected thereto, a central tube extending into the interior of said iron, said tube being circumferentially perforated, a platinum-wire gauze wound about said perforated tube, one end of the latter extending through a portion of said member, the cylinder having a central tube projecting beyond its ends, one end of said cylinder designed to be connected to said member and the meeting ends of the interior tubes brought into communication, the cap to the cylinder having exhaust-ports, and means for supplying gas to the interior tubes, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM B. DUDLEY.

Witnesses:

GEORGE A. TURNER,  
P. D. JENNINGS.