No. 755,128. PATENTED MAR. 22, 1904.

R. GRANT.

PRESSING IRON.

APPLICATION FILED DEC. 9, 1903.

NO MODEL.

Fig. 1.

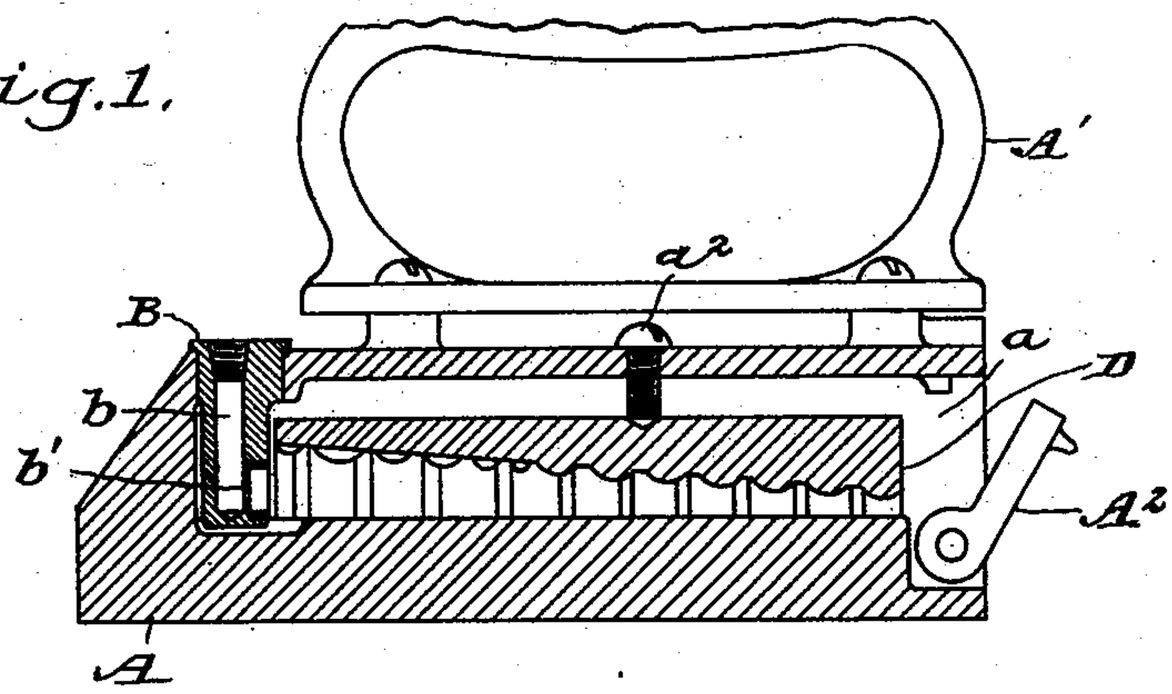
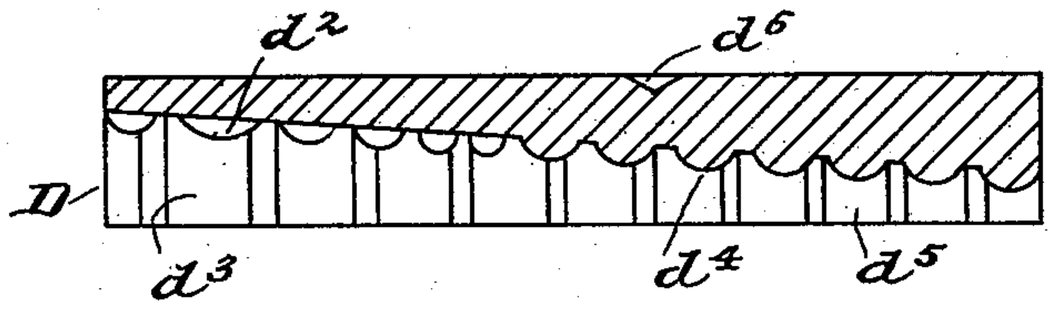


Fig. 4.



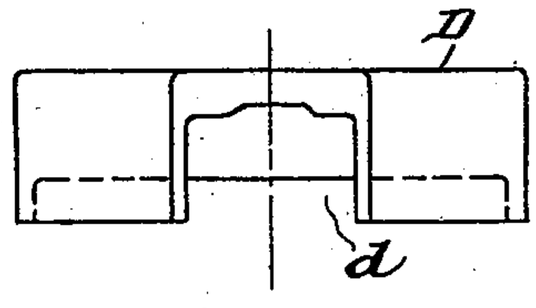


Fig. 2.

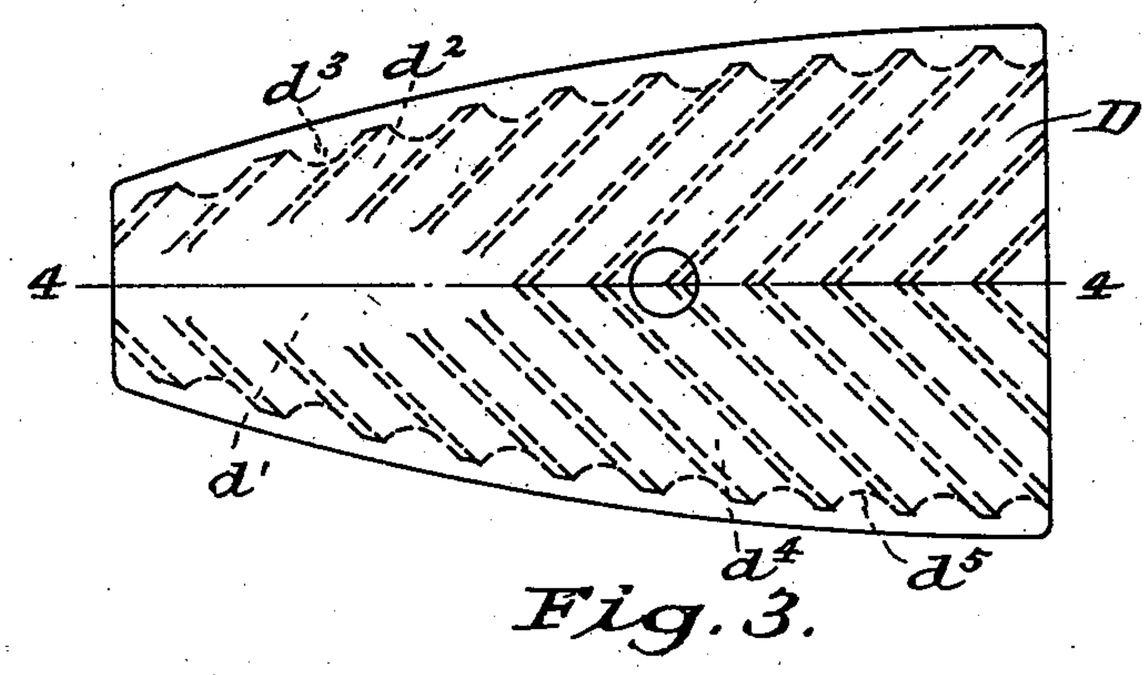


Fig. 3.

Witnesses
Chas. F. Thompson.
E. R. Bolton

Richard Grant Inventor
By his Attorney J. C. Fowler

No. 755,128. Patented March 22, 1904.

UNITED STATES PATENT OFFICE.

RICHARD GRANT, OF NEW YORK, N. Y.

PRESSING-IRON.

SPECIFICATION forming part of Letters Patent No. 755,128, dated March 22, 1904.

Application filed December 9, 1903. Serial No. 184,495. (No model.)

To all whom it may concern:

Be it known that I, RICHARD GRANT, a citizen of the United States of America, and a resident of New York, in the county and State of New York, have invented a certain new and useful Pressing-Iron, of which the following is a specification.

My invention relates to pressing-irons which are constructed and arranged to be heated by means of combustible gases and compressed air, and particularly to means whereby the heat of combustion is evenly conducted through the pressing-iron by means of a heat-distributing flame guide or cover; and it has for its object the provision of an appliance of the kind set forth simple in construction, inexpensive to manufacture, and efficient in practical use.

To attain the desired end, this my invention consists in the construction, arrangement, and operation of parts herein set forth.

In order to enable my invention to be fully understood, I will proceed to explain the same by reference to the drawings which accompany and form a part of this specification, in which—

Figure 1 represents a longitudinal section of a pressing-iron constructed according to my invention. Fig. 2 is an end elevation of my flame guide or cover. Fig. 3 is a plan view of the same; and Fig. 4 is a view in section taken on the line 4 4, Fig. 3.

Like letters of reference indicate like parts in all the views.

Referring particularly to the drawings, A denotes the hollow casting constituting the body of my pressing-iron, which is provided with a handle A′ and a hinged door A^2 to close the opening in the rear of the casting, of ordinary or suitable construction.

The front portion of the casting A is ordinarily furnished with a preferably detachable duct B, suitably held in place within an opening in the top of the said casting and having a mouth leading into the hollow chamber *a* of the latter and formed with an interior channel or bore *b*, communicating, as stated, with the chamber of the casting A and constructed and arranged to be used in connection with any ordinary or suitable pipe (not shown) leading to any desirable receptacle in which the combustible gas and compressed air have been mixed, as is customary in appliances of this description.

A screen of wire-gauze *b* is ordinarily inserted in the mouth of the duct B for the purpose of preventing the flame from traveling back through the same to the receptacle containing the combustible mixture. The duct B may be removed when necessary for the purpose of facilitating the cleaning of the screen and the removal therefrom of the products of combustion.

In the interior hollow chamber of the casting A is located my flame guide or cover D, which consists of a preferably cast plate made approximately of the size of the said chamber of the casing A or, as in the present instance, preferably smaller. The flame guide or cover D is preferably formed with a hollow chamber *d*, ordinarily extending entirely through the same, of approximately inverted-**U** shape in cross-section, the height of the said hollow chamber being greatest at the front portion of the same and gradually becoming contracted toward the rear of the flame-guide. The contour or conformation of the said chamber ordinarily consists of a longitudinally-extending open portion *d*, larger than the mouth of the duct B and located adjacent to the latter, the top wall at the front of the chamber being plane or non-corrugated, from which plane portion approximately horizontally-located corrugations d^2 extend rearwardly along the top of the same at an angle of approximately forty-five degrees from the longitudinal axis of the flame-guide until they approach near the sides of the same, at which point they descend, preferably in a vertical direction, as at d^3, to the base of the flame-guide, thus leaving a thin corrugated wall on each side of the latter. Rearwardly of the opening *d* similarly-formed approximately horizontal corrugations d^4 extend outwardly on each side from the central vertical longitudinal plane of the flame-guide, which terminate in vertical corrugations d^5.

In the top face of the flame guide or cover

D is formed a recess d^6, constructed and arranged to register with and to be engaged by a screw a^2, which passes through the top of the casting A and serves to hold the said parts together.

It is manifest that various omissions of some particulars could be made without materially affecting the essential features of my invention or the operation of the remaining parts, and I do not, therefore, wish to be limited to the specific structural details of the organization herein set forth.

In operation the mixture of combustible gas and compressed air passes from any suitable receptacle therefor into the duct B through the channel or passage *b*. After passing through the wire-gauze screen *b'* the gaseous mixture is ignited and burns with a flame which is directed into the hollow chamber of the flame guide or cover. This flame impinges upon the top wall of the said chamber and along the corrugations thereof, in consequence of which the flame-guide absorbs heat, which is conducted over the entire interior surface of the same and radiated from the upper and lower faces of the flame-guide, by means of which the flame is directed evenly along the entire surface of all the faces of the same and the heat is distributed uniformly over the entire floor or pressing-surface of the pressing-iron.

As it is evident that many changes in the construction, form, proportion, and relative arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown and described, but that such changes and equivalents may be substituted therefor and that—

What I claim as my invention is—

1. In a pressing-iron, a detachable hollow flame guide or cover formed with an open bottom and constructed and arranged to rest directly upon the bottom of the iron, the chamber of the flame-guide being contracted in height and enlarged in width from the front to the rear of the same, the latter being also formed with corrugations on the under surface thereof extending rearwardly at an angle from the center of the said flame-guide to distribute the heat evenly along the entire face of the same.

2. In a pressing-iron, a detachable hollow flame guide or cover formed with an open bottom and constructed and arranged to rest directly upon the bottom of the iron, the chamber of the flame-guide being contracted in height and enlarged in width from the front to the rear of the same, the latter being also formed with corrugations on the under surface thereof extending rearwardly at an angle from the center of the said flame-guide to distribute the heat uniformly along the entire face of the same, and also having corrugations on the sides of the chamber to direct the heat uniformly over the pressing-surface of the iron.

In testimony of the foregoing specification I do hereby sign the same, in the State of New York, in the city and county of New York, this 25th day of November, 1903.

RICHARD GRANT.

Witnesses:

FLORENCE J. WALSH,

J. ODELL FOWLER, Jr.