

(No Model.)

A. E. GRANT.  
FLAT IRON HEATER.

No. 549,669.

Patented Nov. 12, 1895.

Fig. 1.

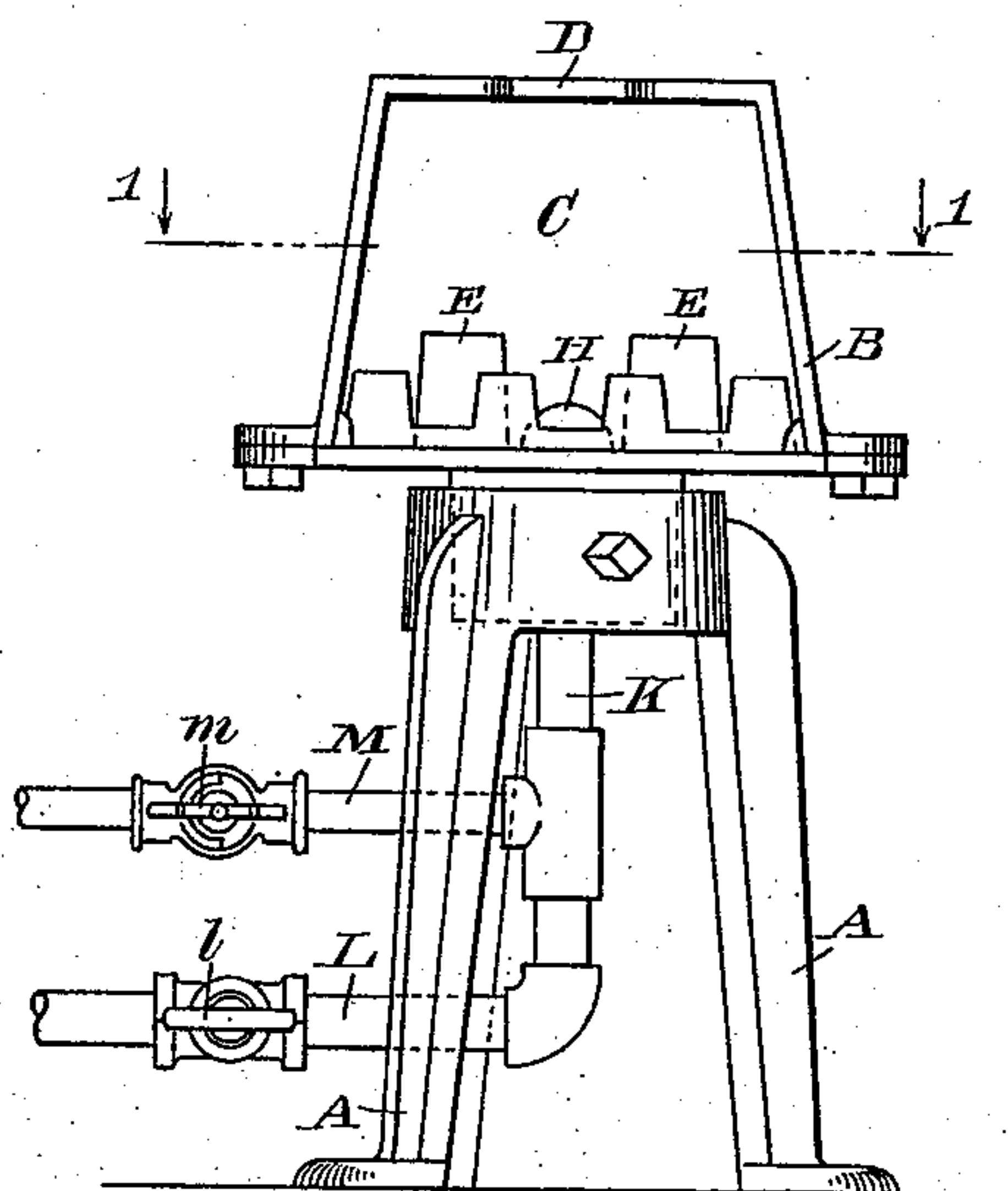


Fig. 2.

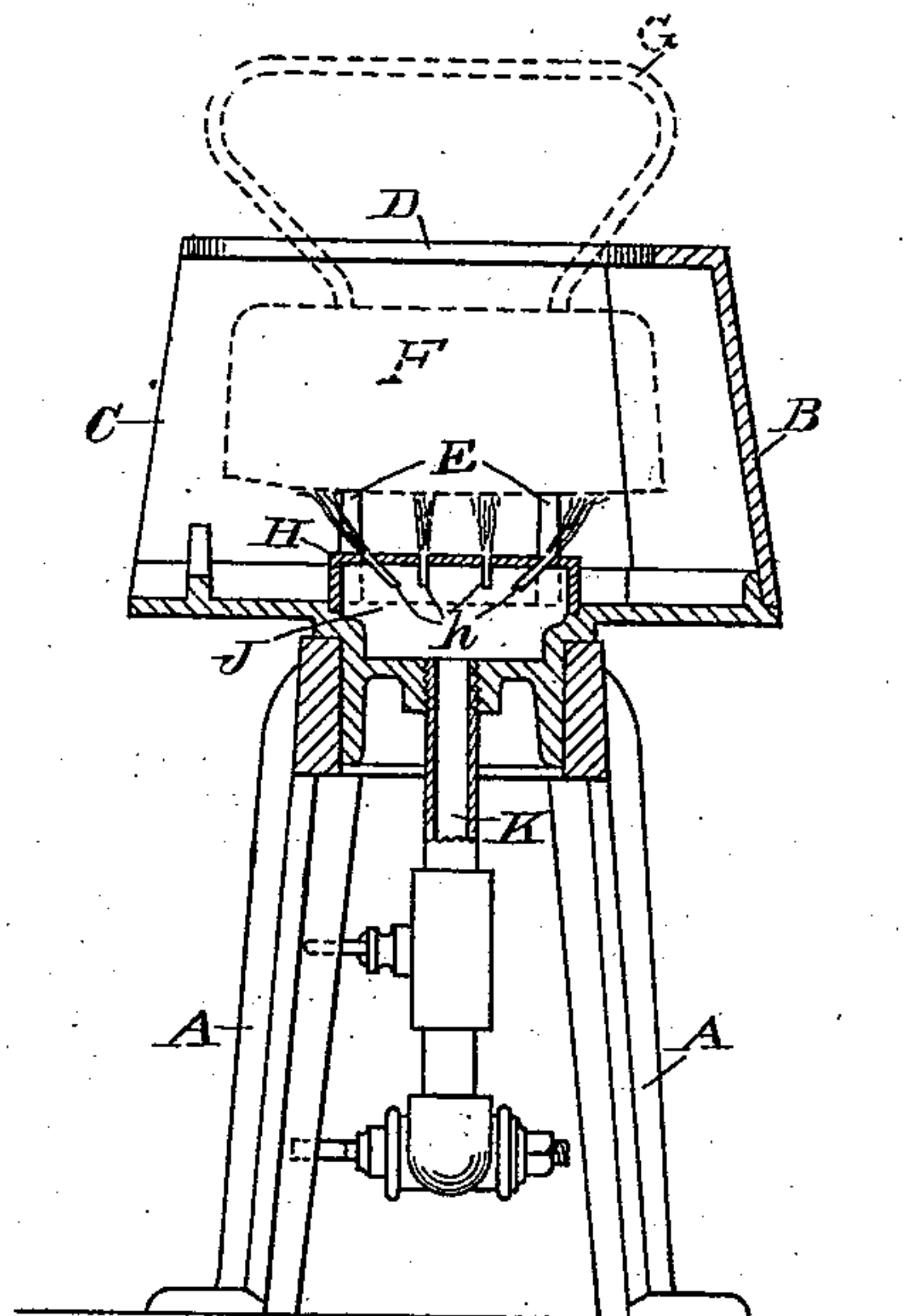


Fig. 3      Sec. 1-1.

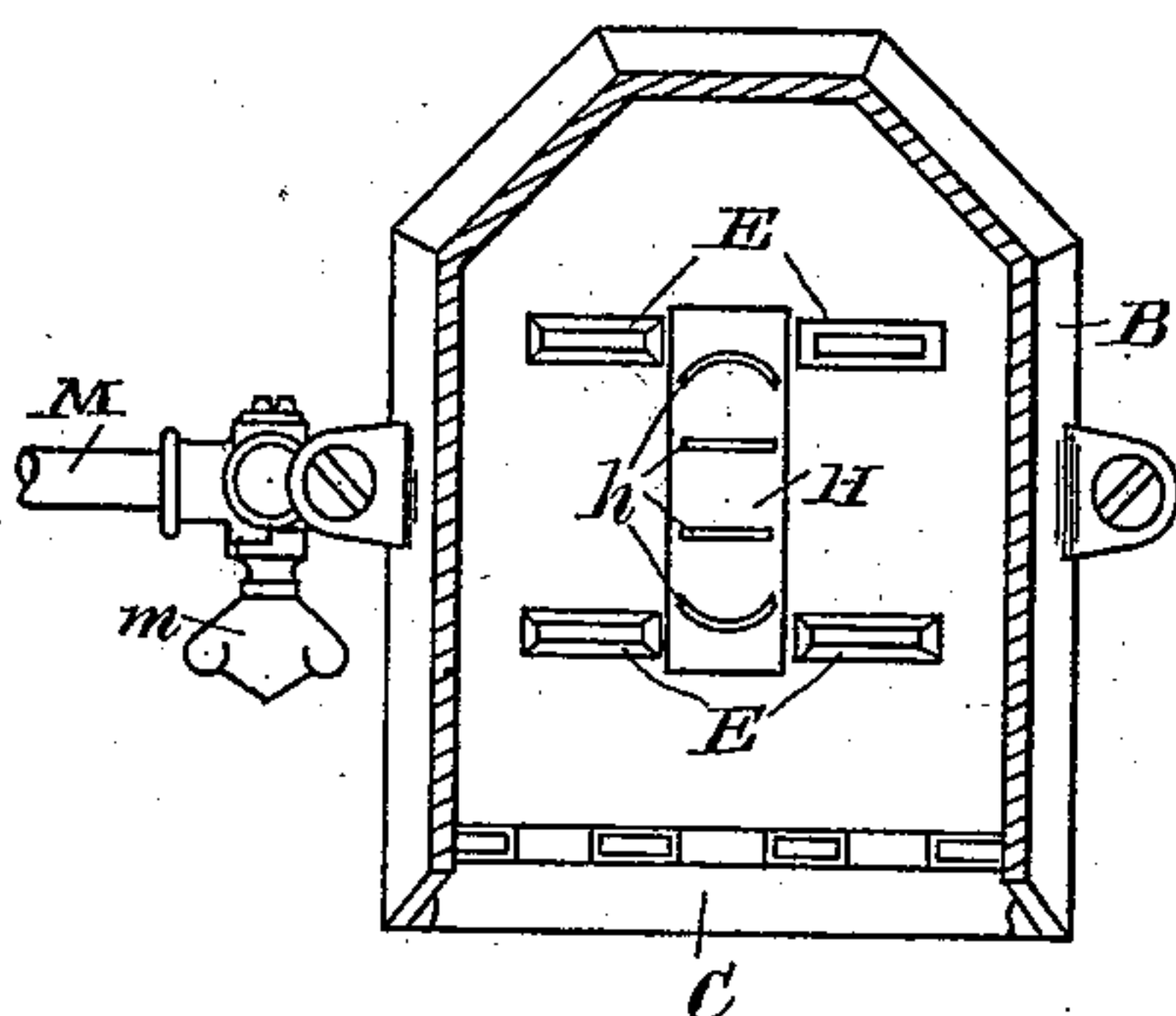
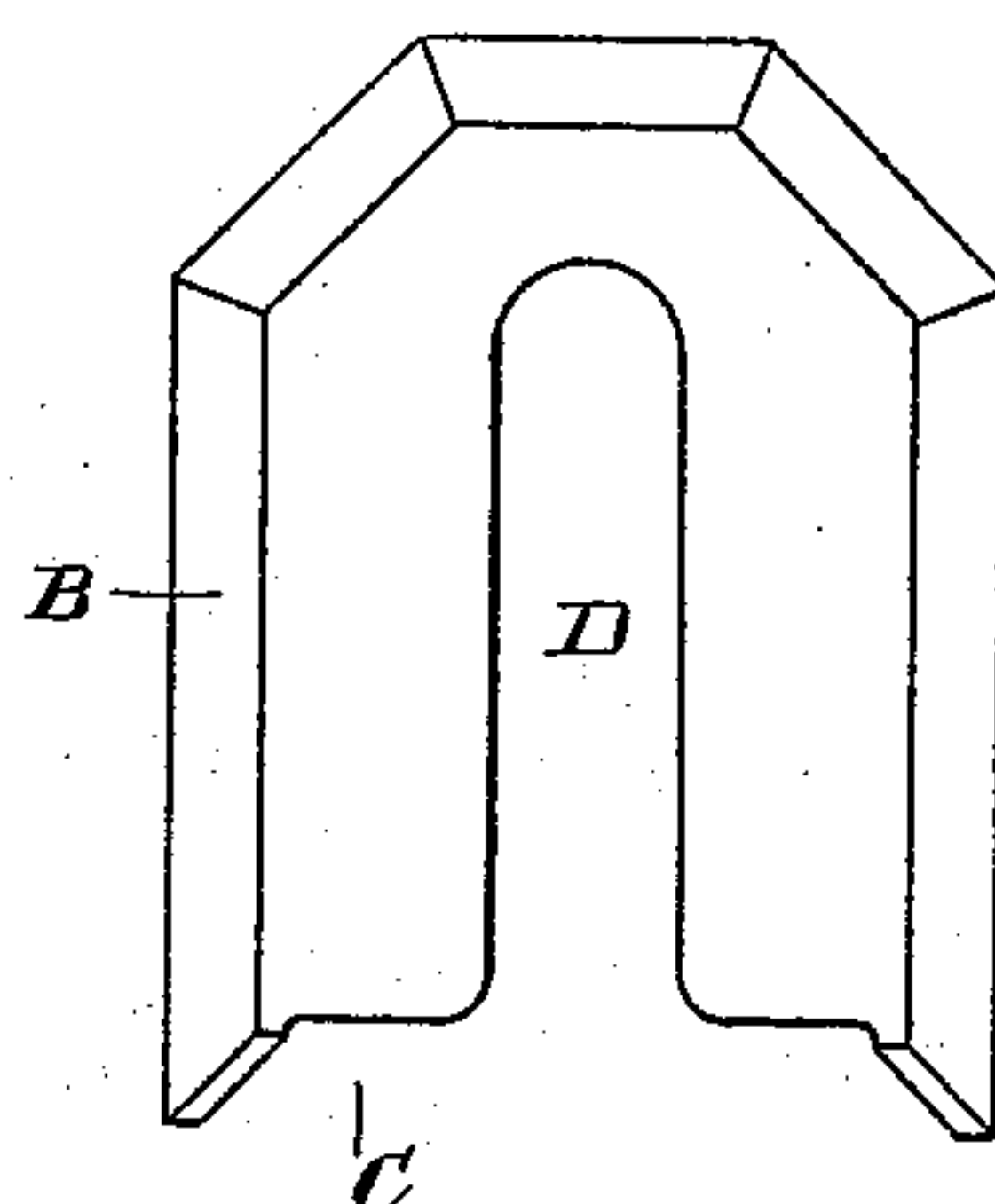


Fig. 4.



Witnesses:  
John B. Great  
D. Simmons Wetmore

by

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# UNITED STATES PATENT OFFICE.

ALBERT E. GRANT, OF TROY, NEW YORK.

## FLAT-IRON HEATER.

SPECIFICATION forming part of Letters Patent No. 549,669, dated November 12, 1895.

Application filed July 1, 1893. Serial No. 479,398. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT E. GRANT, a citizen of the United States, residing at the city of Troy, county of Rensselaer, State of New York, have invented a new and useful Improvement in Flat-Iron Heaters, of which the following is a specification.

My invention relates to improvements in heaters for warming laundry-irons; and the objects of my invention are to provide a simple, inexpensive, and practical heater in which the heating agent is gas mixed with air, and also to provide a box for containing a flat-iron which will admit of its free and unobstructed entrance and retain it immediately above the flame of the burner. I accomplish these objects by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is an elevation. Fig. 2 is a longitudinal section showing an iron in position. Fig. 3 is a cross-section along the line 1 1 on Fig. 1. Fig. 4 is a plan of the upper portion of the heater.

Similar letters refer to similar parts throughout the several views.

Upon suitable legs or supports A A, I mount a metallic box B, opened at one end C and provided in the top with a longitudinal slot D, extending from the open end of the box toward the opposite end. Within the box B and upon the bottom thereof I arrange the upwardly-projecting lugs E, which form a rest or support for the iron F, as shown in Fig. 2. The box B is sufficiently large to admit of the free passage of the iron F, the handle G passing into the slotted opening D in the top of the box.

About the center of the bottom of the box B, I arrange an upwardly-projecting semicylindrically-formed longitudinal burner H, provided with a series of vents *h h*, extending through the semicylindrical portion of the burner from one side to the other and cut at different angles with the axis of said burner, thus making the flame from the burner extend from each side thereof and toward each end of the box as well as vertically.

The burner H extends between the lugs E and lengthwise with the box B in such a manner that when the iron is in position upon

the lugs E, as shown in Fig. 2, the flame from the burner H will come into contact with the lower surface of the iron throughout its whole extent.

The box B is provided with a hollow neck B', which is secured to the upper portion of the frame B. In the upper portion of the neck is formed a chamber J beneath the surface of the bottom of the box B and communicating with the pipe K, which extends usually in a vertical position between the legs or supports A A. The lower portion of the neck is preferably reduced or made smaller than the upper portion, whereby a shoulder is formed, which rests against the top of the frame A and supports it, and the interior of the hollow portion at the bottom plate of the box is countersunk or cut away, in which the bottom of the burner may fit to prevent lateral displacement. Lateral displacement is also prevented by locating the ends of the burner between the lugs E, as shown in Fig. 1. This arrangement of the burner relatively to the lugs also permits of the vents *h h* being located so close to the ends of the burner that the flames can be projected toward the ends of the iron upon the lugs without coming in contact with the lugs themselves.

To the lower end of the pipe K, I connect the pipe L, provided with a suitable valve *l*, and through which pipe L, I conduct atmosphere under pressure into the chamber J.

Between the chamber J and the pipe L, I connect the pipe K with the pipe M, also provided with a suitable valve *m*, through which pipe M, I conduct the gas or other inflammable fluid into the pipe K and from thence into the chamber J.

The introduction of the air into the chamber J is for the purpose of supplying oxygen for combustion of the gas and assisting in heating the iron.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a flat iron heater, the combination, with a frame, of a box thereon, the bottom of the box being provided with a hollow neck, the lower portion of which is provided with a shoulder for engaging with the frame, and the interior is cut away or counter-sunk, said bottom being also provided with upwardly



projecting lugs, one at each corner of the cut  
away portion of the interior of the neck, a  
burner within the cut away portion, the ends  
of which are located between the lugs, and  
5 the top of which is semi-cylindrical and pro-  
vided with vents, the end vents being ad-  
jacent to the lugs and inclined, the burner

and the hollow neck forming an air mixing  
chamber, and a supply pipe communicating  
with the chamber, substantially as set forth.

ALBERT E. GRANT.

Witnesses:

FREDERICK W. CAMERON,  
GRACE T. MANY.