

No. 754,259.

PATENTED MAR. 8, 1904.

J. S. VAN BUREN.
STOVE ATTACHMENT.

APPLICATION FILED JUNE 20, 1903.

NO MODEL.

Fig. 1.

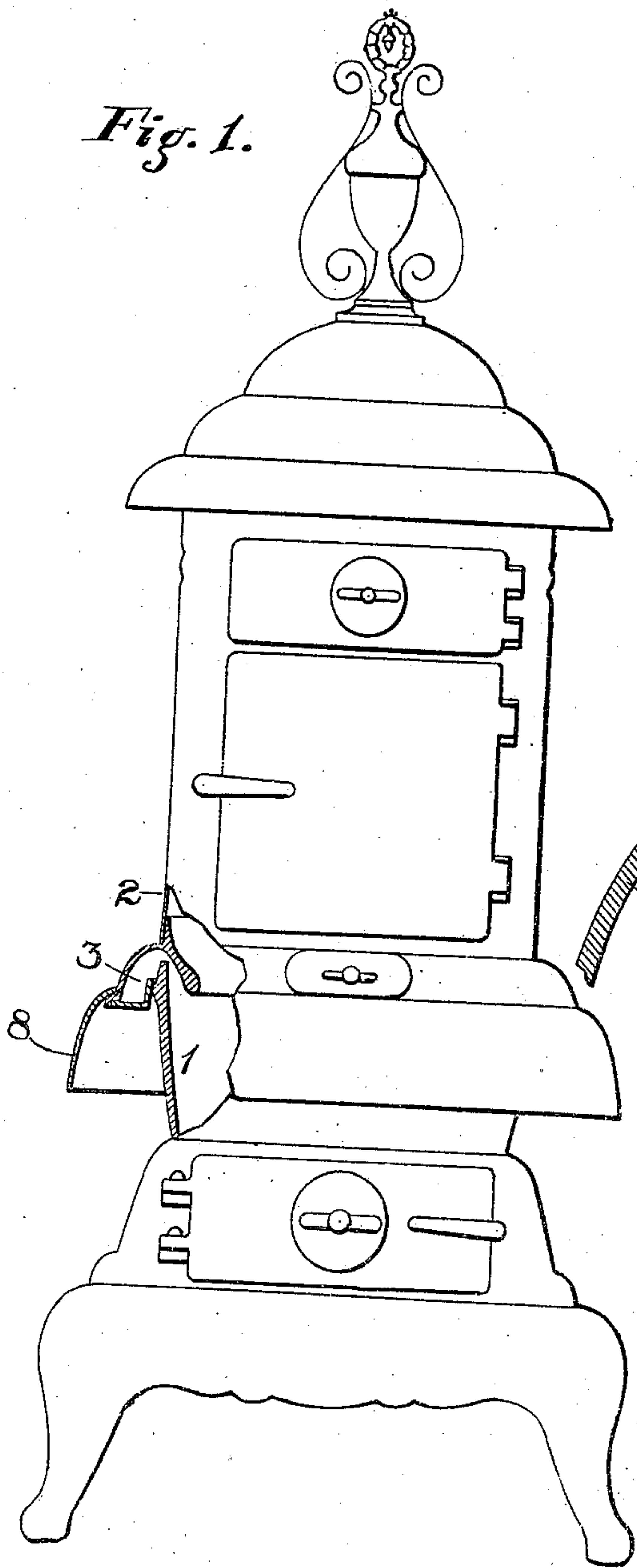
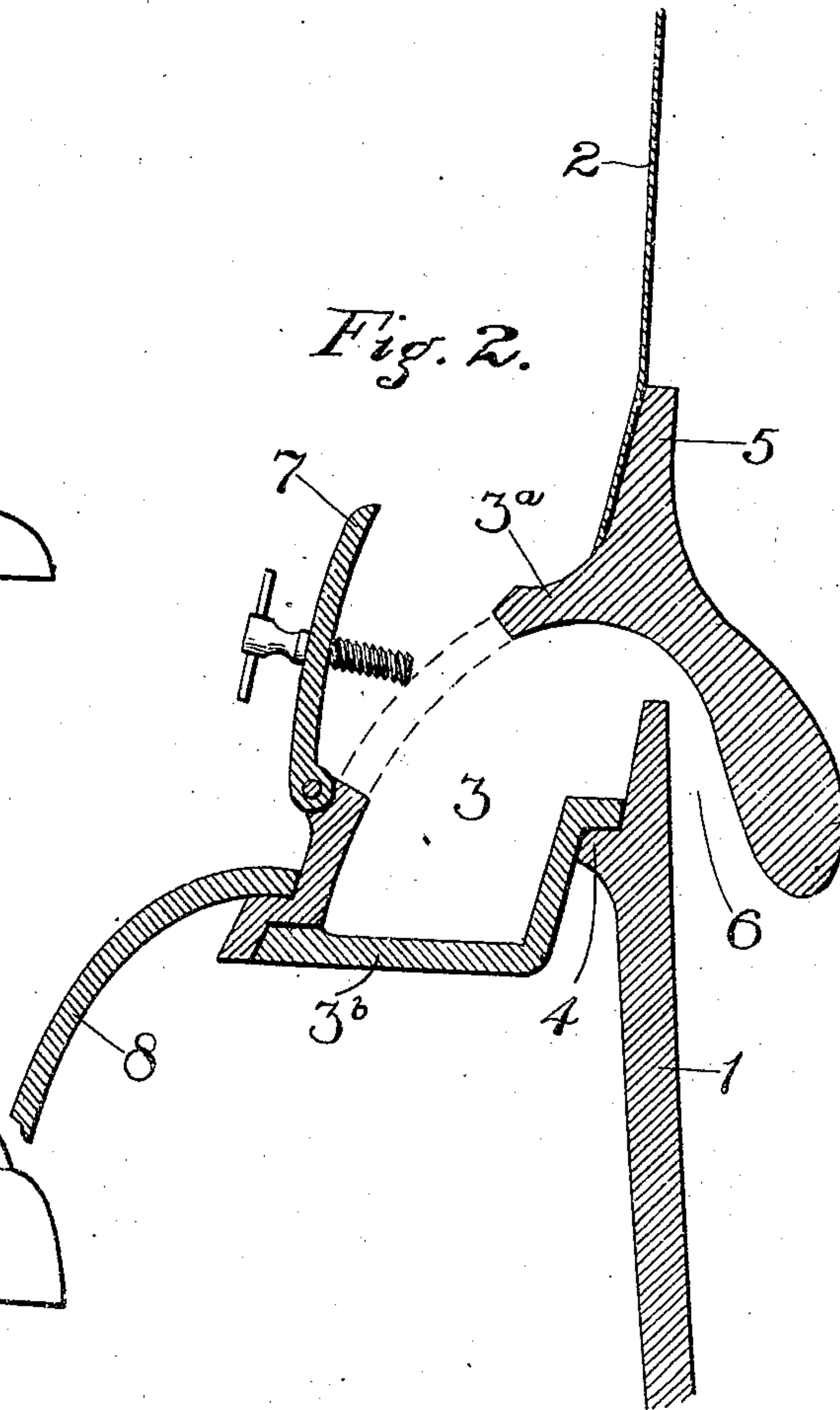


Fig. 2.



Witnesses

ROY C. CLAFLIN

C. V. Blandif

Inventor

J. S. VANBUREN

By *Edson Bros.*
Attorneys

UNITED STATES PATENT OFFICE.

JAFEW S. VAN BUREN, OF ALBANY, NEW YORK, ASSIGNOR TO RATHBONE, SARD & CO., A CORPORATION OF NEW YORK.

STOVE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 754,259, dated March 8, 1904.

Application filed June 20, 1903. Serial No. 162,434. (No model.)

To all whom it may concern:

Be it known that I, JAFEW S. VAN BUREN, a citizen of the United States, residing at Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Stove Attachments; and I do hereby 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.

My invention relates to improvements in gas-burning appliances for stoves, furnaces, &c.

It has for its object to provide an attachment of this character which will promote efficiency in completely consuming the gas evolved and which cannot become choked with ashes.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a front view or outline of a stove, partly in central section, provided with my improved attachment; and Fig. 2 is a partial sectional view taken through the blast-belt and showing the supply-door, the drum driven on the flange of the upper section of the blast-belt, and the deflector.

Referring more particularly to the drawings, 1 is the fire-pot, 2 is the drum, and 3 is the blast-belt, which is located without and preferably completely encompasses the stove between the fire-pot and the drum. Said blast-belt is composed of two sections or rings, 3^a and 3^b, made of suitable metal, the lower one resting on a step or projection 4 on the outer surface of the fire-pot. Said lower section is itself preferably stepped in order to give the belt sufficient capacity. The outer edge of the upper section 3^a rests upon the outer portion of the lower section 3^b, from thence curves upwardly and inwardly and is provided with a shoulder 5, projecting upwardly for the reception of the drum. Said upper section curves downwardly and inwardly from said shoulder leaving a preferably gradually-widening passage 6 between itself and the fire-pot as it approaches the level of the fire. The shoulder 5 is preferably sloped or beveled on its outer surface in order that the drum may be driven thereon, thereby stretching the portion of said

drum coming in contact therewith and making a tight joint. Any expansion of the fire-pot will serve to make the joint tighter. There is no connection between the blast-belt and the direct draft. Air is fed into the belt through an adjustable door or damper 7 in the front of the stove just below the feed-door. A deflector 8, which may have its lower edge cut out to form an ornamental design, as shown, arranged on the outer edge of the draft-belt, adds to the appearance of the stove and greatly increases the heat on the floor. The air enters the blast-belt through the door or damper above referred to, is heated to a very high temperature, and passes into the fire directly over the surface where the gases are forming. This admixture makes the gases combustible. Perfect combustion is thus secured, and the heat evolved by this secondary combustion of gases is about twice that evolved by the first combustion in which the gases are formed.

Special advantages of my device are that the blast-belt cannot become filled up with ashes, there is no tube or ring to burn out, the blast-belt is sufficiently large and heavy to heat the requisite volume of air and to heat it to the desired temperature, and the blast is delivered at the proper point—namely, directly over the surface of the fire—evenly all around the fire-pot.

It is to be understood that I do not limit myself to the details of construction herein described, as they may be changed at will and the spirit of my invention remain intact and be protected.

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

1. In a device of the character described, the combination with a fire-pot and drum of a fuel-burning apparatus, of an exterior blast-belt having an inner overhanging flange provided with an enlargement around its inner edge.

2. The combination with the fire-pot and drum of a fuel-burning apparatus, of a blast-belt carrying an external and imperforate downwardly - curving deflector adapted to

throw the heat downward and forming a pocket in which the heated air assists in heating the air-chamber.

3. In a device of the character described, the combination with the fire-pot and drum of a fuel-burning apparatus, of an exterior blast-belt comprising a lower section, resting upon a flange on the fire-pot, and an upper section wholly supported by said lower section, said upper section forming an arch over the upper edge of the fire-pot and extending downwardly within the same forming a circumferential passage for feeding the air upon the fire.

4. In a device of the character described, the combination with the fire-pot and drum of a fuel-burning apparatus, of an exterior blast-belt comprising a lower section, resting upon a flange on the fire-pot, and an upper section wholly supported by said lower section, said upper section forming an arch over the upper edge of the fire-pot and extending downwardly within the same forming a circumferential graduated passage for feeding the air upon the fire.

5. In a device of the character described, the combination with the fire-pot and drum of a fuel-burning apparatus, of an exterior blast-

belt comprising a lower section, resting upon a flange on the fire-pot, and an upper section wholly supported by the lower section and forming an arch over the upper edge of the fire-pot, said upper section having a flange to receive the drum and extending downwardly within the fire-pot forming a circumferential passage for feeding the air upon the fire.

6. In a device of the character described, the combination with the fire-pot and drum of a fuel-burning apparatus, of an exterior blast-belt comprising a lower section, resting upon a flange on the fire-pot, and an upper section wholly supported by the lower section and forming an arch over the upper edge of the fire-pot, said upper section having a tapering flange to receive the driven-on drum and extending downwardly within the fire-pot forming a circumferential passage for feeding air upon the fire.

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

JAFEW S. VAN BUREN.

Witnesses:

A. I. HENNESSY,
E. R. HOBBS.