No. 878,028. PATENTED FEB. 4, 1908.

H. WAGNER.

HEATING STOVE.

APPLICATION FILED FEB. 26, 1907.

Fig. 1.

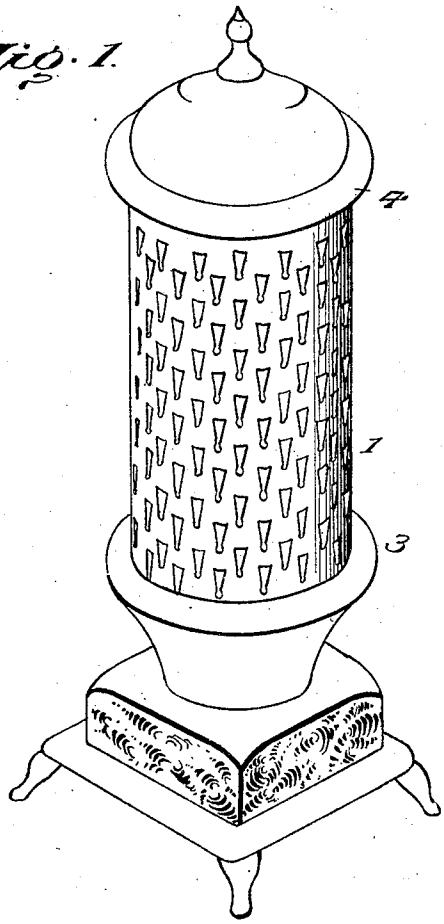



Fig. 2.

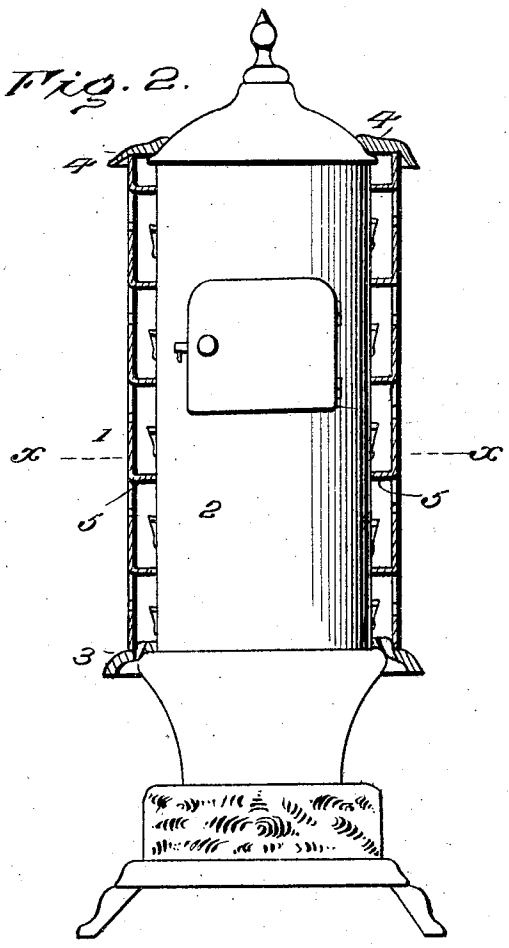
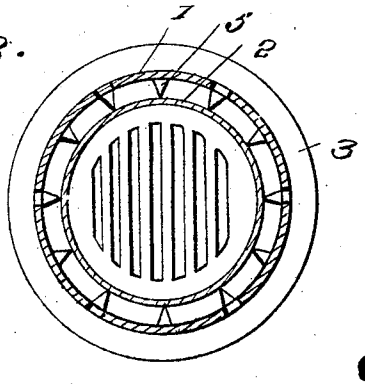



Fig. 3.




Witnesses

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# UNITED STATES PATENT OFFICE.

HARRY WAGNER, OF ST. LOUIS, MISSOURI.

## HEATING-STOVE.

No. 878,028. Specification of Letters Patent. Patented Feb. 4, 1908.

Application filed February 26, 1907. Serial No. 359,348.

*To all whom it may concern:*

Be it known that I, HARRY WAGNER, citizen of the United States, residing at St. Louis, in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Heating-Stoves, of which the following is a specification.

This invention relates to stoves and more particularly to such as are designed for heating purposes and which burn soft coal as fuel, the purpose being to prevent marring the outside polished appearance of the stove as well as to economize in fuel and obtain a maximum percentage of units of heat from a given quantity of fuel.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a heating stove embodying the invention. Fig. 2 is a view in elevation of the body portion of the stove showing the jacket or encircling shell in section. Fig. 3 is a horizontal section of the stove on the line $x$—$x$ of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The invention relates most especially to the jacket, shell or casing inclosing the body of the stove, hence the latter may be of any type, pattern or make commonly employed for heating purposes. The jacket or casing 1 is of larger diameter than the body 2 of the stove so as to leave a space between the two for circulation of air which prevents burning or overheating of the jacket or casing and at the same time insures a greater volume of air coming in contact with the stove so as to carry off radiated heat. The jacket or casing 1 is preferably of sheet metal such as steel or Russia iron which has a highly polished exterior surface and which finish is maintained because the jacket or casing is prevented from overheating by the air circulating through the space formed between said jacket and the body of the stove. The jacket or casing is supported in any desired way and maintains a fixed position so that the space between it and the body of the stove is practically uniform. As shown, the stove is provided with cast metal rings 3 and 4 to which the ends of the jacket or casing are fitted, so as to prevent both vertical or lateral displacement thereof. Projections 5 stud the inner surface of the jacket or casing and serve the purpose of spacing and bracing the same and providing deflectors. The projections 5 are an integral part of the casing and are formed by partly cutting portions therefrom and pressing the same inward, forming openings 6 through which air has ready ingress and egress. The inner ends of the projections 5 touch the outer side of the stove body with the result that the casing is braced and centered. Projections 5 are comparatively wide so as to form deflectors for the ascending current of air and said projections have a horizontal arrangement and taper towards their inner ends so as to bring the smallest amount of metal possible in direct contact with the body of the stove to prevent conduction of heat to the casing. While the projections may be arranged in any manner, it is preferred to have them set staggering, thereby precluding the formation of vertical channels and compelling the ascending air to take a tortuous path with the result that the jacket is cooled to a minimum degree, and a maximum amount of radiated heat utilized for effective work in raising the temperature of the room or apartment in which the heater may be placed.

Having thus described the invention, what is claimed as new is:

1. In combination with a stove, a jacket or casing inclosing the same and spaced therefrom and projections studding the inner side of said jacket and touching the outer surface of the stove, said projections being flattened and tapering to a point towards their inner ends to bring a minimum amount of metal in direct contact with the stove body.

2. In combination with a stove, a jacket or casing inclosing the same and spaced therefrom, and flattened and tapered projections studding the inner side of the said jacket, the said projections having a staggered arrangement to cause air circulating in the space between the stove and casing to

take a tortuous path, the tapered ends of the projections touching the stove to hold the casing spaced therefrom.

3. In combination with a heater, a sheet metal casing surrounding the same and having portions partly cut therefrom and pressed inward to form openings in the side of the casing, and a plurality of inner projections extending across the space between the heater and casing, said projections having a horizontal arrangement and tapered towards their inner ends to bring a minimum amount of metal in contact with the heater.

4. The combination of a stove, rings carried by the stove, a casing inclosing the stove and spaced therefrom, the said casing being held between the rings, and projections studding the inner side of the casing, the said projections tapering to a point and engaging the stove to hold the jacket spaced therefrom.

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

HARRY WAGNER. [L. S.]

Witnesses:

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