

W. R. JEAVONS & A. R. WHITTAKER.

STOVE ATTACHMENT.

APPLICATION FILED NOV. 12, 1910.

996,087.

Patented June 27, 1911.

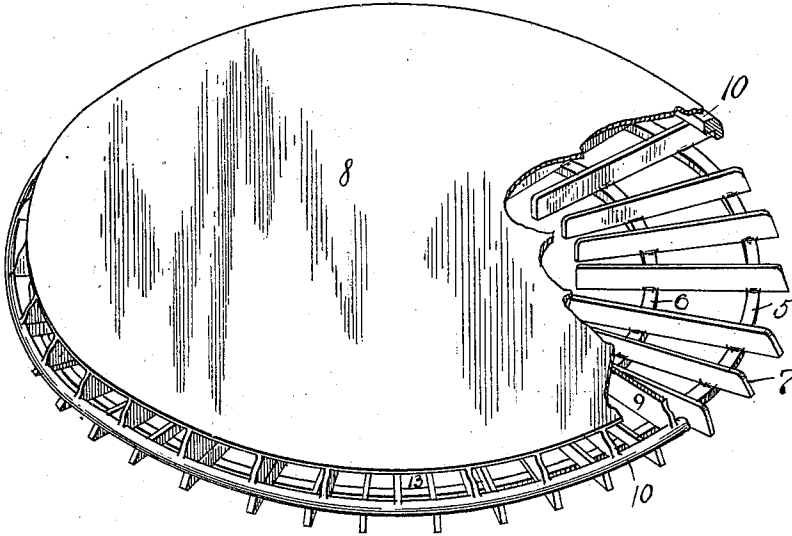


FIG. 1

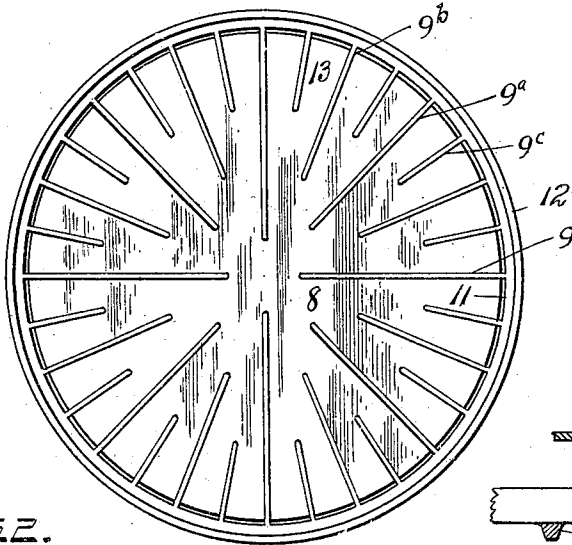


FIG. 2.

Witnesses

Bernhard West.

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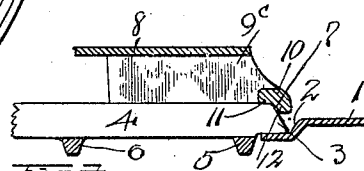


FIG. 3.

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STOVE ATTACHMENT.

996,087.

Specification of Letters Patent. Patented June 27, 1911.

Application filed November 12, 1910. Serial No. 591,974.

To all whom it may concern:

Be it known that we, WILLIAM R. JEAUVONS and ARNOLD R. WHITTAKER, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Stove Attachments, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to attachments for oil and gas stoves for the purpose of supporting and efficiently heating articles, such as irons.

The object of the invention is to provide an attachment of this kind which shall be extremely efficient in operation, conveying to the article to be heated a very high proportion of the heat units developed by the flame while at the same time equalizing the temperature over an extended lateral area as well as protecting the objects from the direct action of the flame.

A further object of the invention is to provide an attachment of this kind which is adapted to fit and coöperate with the grates with which oil and gas stoves are provided.

We accomplish these results by the construction illustrated in the drawings forming part hereof, wherein—

Figure 1 represents a perspective view, with parts broken away, showing our attachment applied to a grate; Fig. 2 represents a bottom plan view of the attachment, and Fig. 3 a detail in section of the grate and attachment and a portion of the stove top.

The attachment shown herein comprises generally an elevated plate connected by spaced ribs with a peripheral ring located beneath said plate, the ring being provided with a downturned flange at its outer periphery, which flange is adapted to receive the ends of the ribs or bars of a standard grate.

Describing the various parts illustrated herein by reference characters, 1 denotes the top of a stove of ordinary construction, said stove being provided with the usual opening for a grate and having an annular depressed seat 2 around said opening for the reception of the outer ends 3 of the radial bars of a grate 4. The grate is of usual construction and comprises a plurality of rings 5 and 6, said rings serving to support the bars and add strength to the grate. The

upper surfaces of the bars are in a higher plane than the stove top 1, to permit the products of combustion to pass beneath the vessel supported by the bars and outwardly above the stove top. The outer ends of the bars are provided each with a vertically extending shoulder 7, the shoulders being equidistant from the center of the grate. Our heating attachment is supported on an ordinary grate of this kind. This attachment comprises a circular plate 8 having cast with and depending from the under surface thereof a number of radial ribs. Some of these ribs, 9, extend nearly to the center of the plate 8; others, 9^a, extend inwardly a shorter distance than the ribs 9; still other ribs, 9^b, extend inwardly a shorter distance than the former ribs; and a series of still shorter ribs 9^c is also shown, extending inwardly from the peripheral portion of the plate. The outer ends of the ribs have cast there-with a strengthening bar, shown as a ring 10, said ring being carried by the outer ends of the ribs and having a bearing surface or ledge 11 on its under side which is substantially flush, or in the same plane, with the bottoms of said ribs. This ring is of less vertical extent than the ribs, whereby outwardly flaring passageways are formed between the ribs and between the plate 8 and the upper surface of the ring 10. At its outer edge the ring 10 is provided with a downwardly projecting flange 12, the inner vertically extending surface of which is adapted to receive the vertically extending shoulders 7 at the ends of the grate ribs and fit more or less snugly thereon. By this construction, the heating attachment is centered and supported in the most efficient relation to the burner beneath the grate.

In operation, the products of combustion from the burner impinge against the lower surface of the plate 8 and against the ribs projecting downwardly therefrom and then pass out through the radially flaring passageways 13 provided between the ribs, the bottom of the plate 8 and the upper periphery of the ring 10. The ribs greatly increase the heating surface on the under side of the plate 8, absorbing the heat from the products of combustion of the burners and conducting such heat to the plate. It has been found, by actual experiment, that the plate will be heated some forty per cent. higher with these ribs than if they are omitted.

The construction described herein is simple, economical of production, but extremely efficient in operation.

Having thus described our invention, what we claim is:

1. An attachment for the purpose specified comprising a plate having a plurality of ribs depending from and cast with the lower surface thereof, the outer ends of said ribs projecting beyond the periphery of said plate and having a strengthening bar cast therewith, said bar having a grate-engaging surface in the plane of the lower edges of the ribs and being vertically spaced from said plate.

2. An attachment for the purpose specified comprising a plate having a plurality of radial ribs depending from and cast with the lower surface thereof, the outer ends of said ribs projecting beyond the periphery of said plate and having a ring cast therewith, said ring having a grate-engaging surface in the plane of the lower edges of the ribs and being vertically spaced from said plate.

3. An attachment for the purpose specified comprising a circular plate having ribs cast with and depending from the under surface thereof, a ring cast with the outer ends of said ribs and vertically spaced from said plate, the said ring having a bearing surface in the plane of the bottoms of the ribs and a depending annular flange located outside of said surface.

4. An attachment for the purpose specified comprising a plate having ribs cast with and depending from the under surface thereof, a strengthening bar carried by the outer ends of said ribs and vertically spaced from said plate, the said bar having a bearing surface in the plane of the bottoms of the ribs and

a depending annular flange located outside of said surface.

5. The combination, with a grate comprising a plurality of ribs, each of said ribs having adjacent to its outer end a vertically extending shoulder, the shoulders being equidistant from the center of the grate, of an attachment for said grate, said attachment comprising a plate having a plurality of ribs cast with and depending from its under surface, and a ring carried by the outer ends of the last mentioned ribs and vertically spaced from the plate, said ring having a bearing in substantially the same plane as the bottoms of the ribs by which it is carried and a depending ledge located exteriorly of said surface, said ledge being adapted to engage the shoulders on the grate ribs and center the attachment on the grate.

6. The combination, with a grate comprising a plurality of ribs, each of said ribs having adjacent to its outer end a vertically extending shoulder, an attachment for said grate, said attachment comprising a plate having a plurality of ribs cast with and depending from its under surface, and a strengthening bar carried by the outer ends of the last mentioned ribs and vertically spaced from the plate, said bar having a depending ledge adapted to engage the shoulders on the grate ribs and center the attachment on the grate.

In testimony whereof, we hereunto affix our signatures in the presence of two witnesses.

WILLIAM R. JEAVONS.
ARNOLD R. WHITTAKER.

Witnesses:

EDWIN HEINA,
EDWIN A. DODD.