

Sept. 2, 1924.

1,507,269

G. H. BACKMIRE

ADAPTER FOR SMOKE AND FUME ARRESTERS

Filed March 4, 1922

Fig. 1

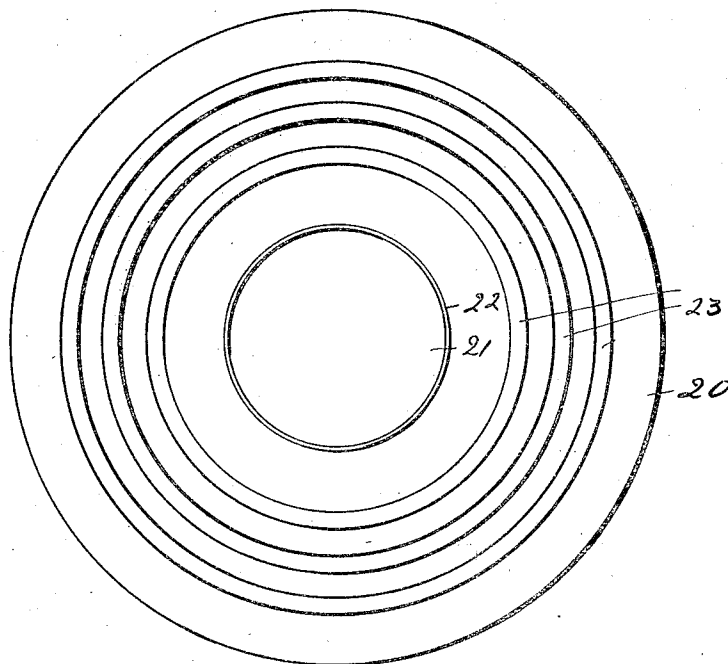


Fig. 2

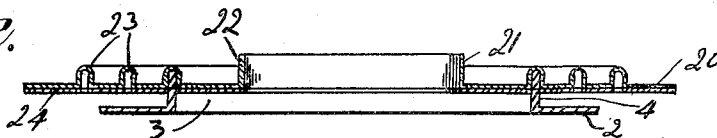


Fig. 3

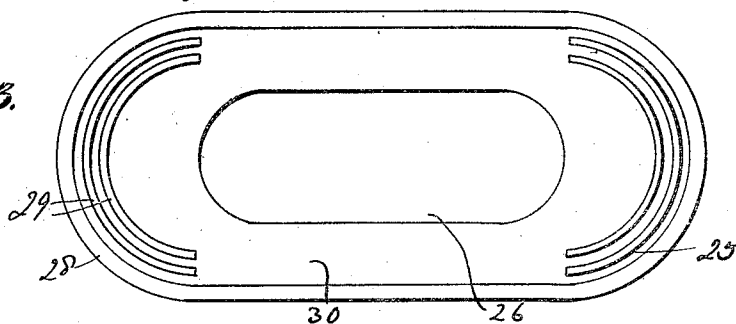
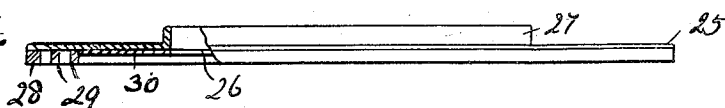


Fig. 4



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UNITED STATES PATENT OFFICE.

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ADAPTER FOR SMOKE AND FUME ARRESTERS.

Application filed March 4, 1922. Serial No. 541,222.

To all whom it may concern:

Be it known that I, GEORGE H. BACKMIRE, a citizen of the United States, residing at Collegeville, in the county of Montgomery and State of Pennsylvania, have invented new and useful Improvements in Adapters for Smoke and Fume Arresters, of which the following is a specification.

My invention relates to new and useful improvements in an adapter for smoke and fume arresters, and has for its object to provide a device of this character for use with such devices as are shown and claimed in my Patents Number 1,076,942, dated October 28th, 1913 and Number 1,360,073, dated November 23rd, 1920.

Another object of the invention is to provide an adapter which may be used with stove collars of different sizes overcoming the necessity of having to manufacture the smoke and fume arresters of different dimensions.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains, may understand how to make and use the same, I will describe its construction in detail, referring by numerals to the accompanying drawings forming a part of this application, in which:—

Fig. 1, is a plan view of an adapter made in accordance with my invention. Fig. 2, is a cross sectional view thereof illustrated in connection with a portion of a stove in the region of the smoke outlet. Fig. 3, is a bottom plan view of a different formation which is particularly adapted for use with stove collars of oval shape. Fig. 4, is a sectional edge view of the adapter shown in Fig. 3.

In carrying out my invention as shown in Figs. 1, 2 and 4, 2 represents a stove having an outlet 3 for smoke, fumes and the like which outlet is surrounded by a collar 4 of ordinary and well known construction, said outlet and collars being generally of two shapes, round and oval.

The adapter illustrated in Figs. 1 and 2 consists of a suitable metal disc 20 having a central opening or outlet 21 for smoke, fumes and the like which outlet is surrounded by a flange 22 with a plurality of con-

centric concavo-convex ribs or corrugations 23 which are spaced to correspond with the different sized stove collars 4. The inner or bottom face of the disc 20 is covered with a sheet of asbestos 24 and if found desirable the outer face may be likewise covered.

As plainly shown in Fig. 2 the concavo-convex ribs 23 will register with a collar 4 of a stove so that the smoke outlet or opening 21 will be homocentric with the smoke outlet 3 of the stove and the smoke and fume arrester illustrated in the patents above referred to will be slipped over the flange 22 so that the draught carrying the smoke and fumes from the oven or other part of the stove will pass directly through the smoke and fume arrester where it will be filtered and the grease or other foreign matter retained.

In that form of my invention illustrated in Figs. 3 and 4, 25 represents a flat plate having a smoke outlet or opening 26 which is surrounded by a flange 27 for the reception of the smoke and fume arrester and on the inner or lower face of this plate is fixed a rib 28 following the contour of the plate and lying along its outer edge while inside of this rib and secured to the inner or lower face of the plate are a plurality of diametrically opposite segmental arcuate ribs 29. This form of the adapter is especially applicable to what is termed oval stove collars and the ribs 29 being segmental it is only necessary that they fit the end portions of the stove collar and will accommodate stove collars having either straight or arcuate long sides. The lower or inner face of the plate is preferably covered with a sheet of asbestos 30.

When the device is used with a stove having an oval shaped smoke outlet and collar that form of the device last described is placed in position and the lower end of the smoke and fume arrester is then bent to fit the flange 27 which will be of the same circumference as that of the lower end of said smoke and fume arrester.

By the use of an adapter as herein described the smoke and fume arresters may be manufactured all of the same size and the adapter attached thereto which will permit the use of the smoke and fume arrester on stoves having different sized outlet openings.

Of course I do not wish to be limited to

the exact details of construction as herein shown as these may be varied within the limits of the appended claims without departing from the spirit of my invention.

5 Having thus fully described my invention, what I claim as new and useful is:—

1. As an article of manufacture, an adapter comprising a flat plate having a central opening surrounded by a flange and provided with arcuate ribs coacting with the collar about the smoke outlet of a stove to position the adapter.

10 2. As an article of manufacture, an adapter comprising an apertured plate and a plurality of spaced concentric concavo-convex ribs coacting with the collar about the smoke outlet of a stove to position the adapter.

15 3. As an article of manufacture, an adapter comprising an apertured plate, a plurality

ity of spaced concentric concavo-convex ribs coacting with the collar about the smoke outlet of a stove to position the adapter, and a sheet of asbestos covering one face of said plate.

4. As an article of manufacture, an adapter comprising a plate having an opening therethrough, a rib fixed to the lower face thereof and conforming to the contour of said plate, and a plurality of spaced arcuate segmental ribs fixed to the inner face of said plate on two opposite sides of the opening therethrough, any of said ribs coacting with the collar about the smoke outlet of a stove to position the adapter.

In testimony whereof, I have hereunto 35 affixed my signature.

GEORGE H. BACKMIRE.