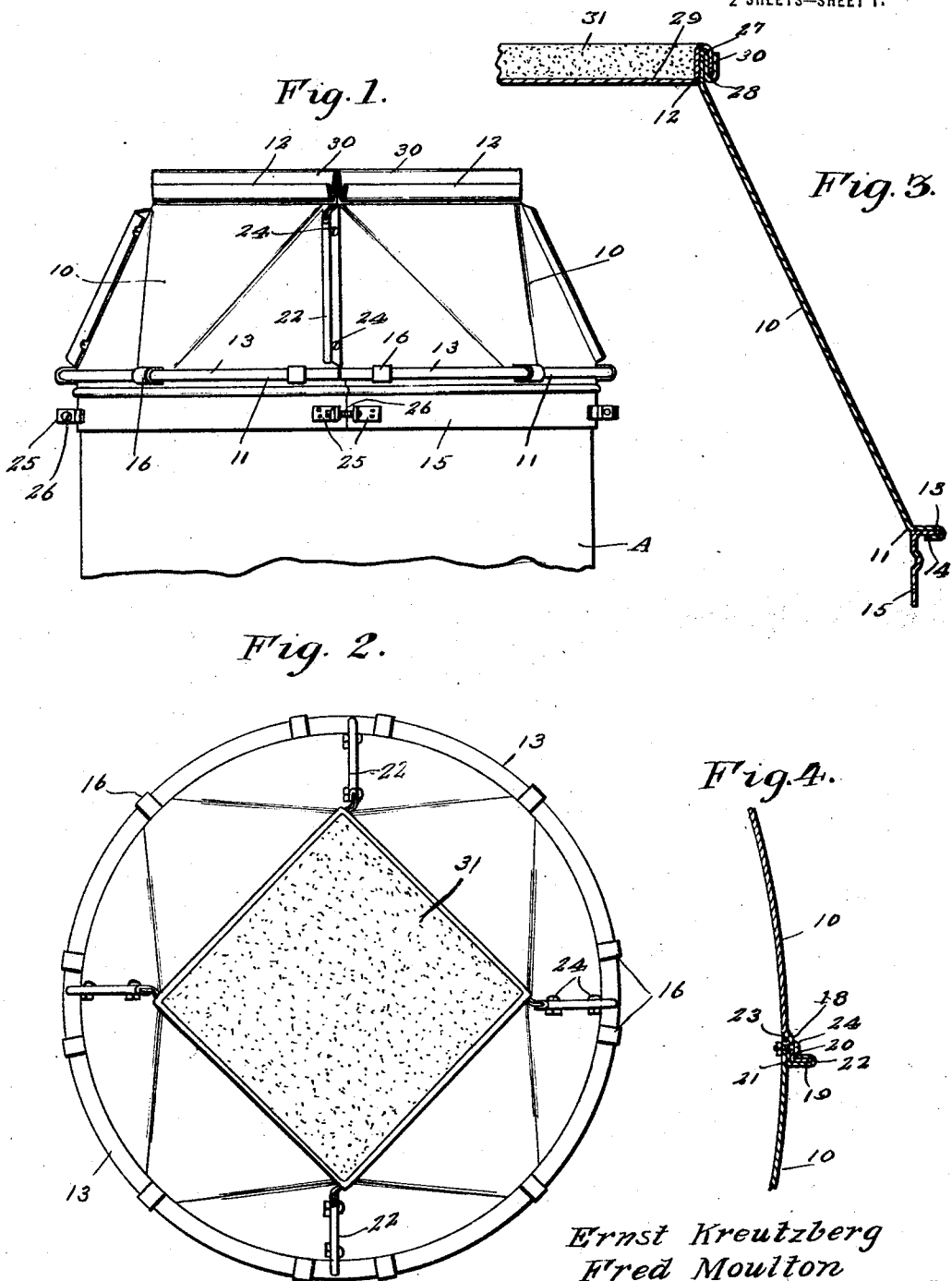


E. KREUTZBERG AND F. MOULTON.
FURNACE CASING TOP.
APPLICATION FILED JULY 12, 1920.

1,406,875.

Patented Feb. 14, 1922.

2 SHEETS—SHEET 1.



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Fig. 7.

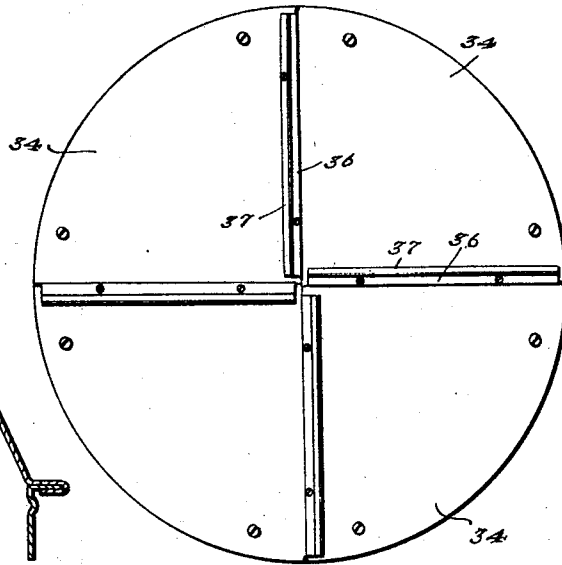


Fig. 6.

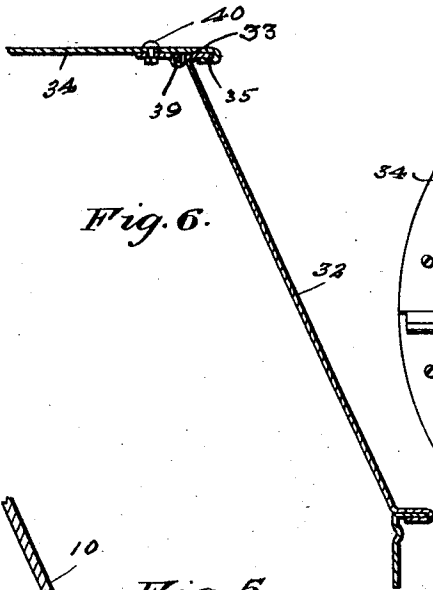


Fig. 5.

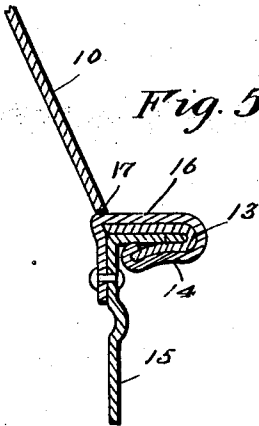


Fig. 9.

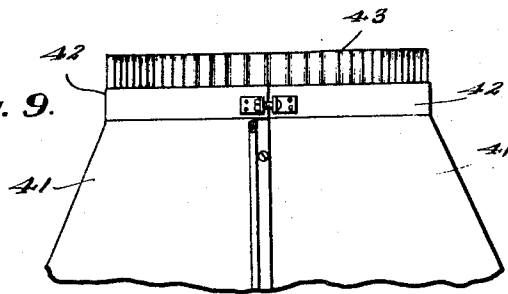
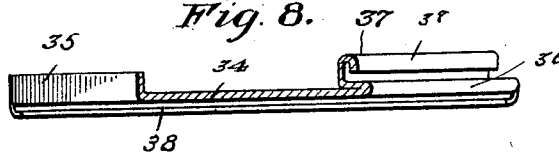


Fig. 8.



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ERNST KREUTZBERG AND FRED MOULTON, OF MARINE, ILLINOIS.

FURNACE-CASING TOP.

1,406,875.

Specification of Letters Patent. Patented Feb. 14, 1922.

Application filed July 12, 1920. Serial No. 395,608.

To all whom it may concern:

Be it known that we, ERNST KREUTZBERG and FRED MOULTON, citizens of Illinois, United States of America, residing at Marine, in the county of Madison and State of Illinois, have invented new and useful Improvements in Furnace-Casing Tops, of which the following is a specification.

This invention relates to furnaces, particularly to the tops therefor, and has for its object the provision of a furnace top construction including a plurality of sections so constructed as to have their meeting edges interengaged and also so formed as to have their lower edges suitably engaged upon the furnace body.

An additional object is the provision of a furnace top construction of this character which will be simple and inexpensive in manufacture and installation, highly efficient in use, durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of a portion of a furnace showing one form of our top thereon,

Figure 2 is a plan view,

Figure 3 is an enlarged vertical sectional view through one side,

Figure 4 is a detail cross sectional view through one of the joints,

Figure 5 is a detail sectional view through one of the lug securing members,

Figure 6 is a vertical sectional view through one side of a modified form,

Figure 7 is a plan view,

Figure 8 is a detail cross sectional view through one section, and

Figure 9 is a side elevation of the modified top.

Referring more particularly to the drawings, and especially to Figures 1, 2 and 3, we have shown the furnace top as including a plurality of similar sections 10 formed of sheet metal having their lower ends bent outwardly as indicated at 11 to define a horizontally extending portion which is bent upon itself to define a hook 13, the upper end being formed with a vertical portion indicated by the numeral 12. The numeral 15 designates a collar which is formed in

sections and which is adapted to be engaged over the upper end of the furnace casing indicated by the letter A. This sectional collar is formed with an outwardly extending flange 14 over which the hook 13 is bent to define a bead and whereby the sections 10 are secured with respect to this sectional collar 15. Mounted upon each section 10 immediately above the bead 13 is a lug or tongue 16 which extends through a suitable slot 17 adjacent the lower end of the section and which is bent around the bead 13 as clearly shown.

Formed upon one side edge of each section 10 is an offset portion 18 formed with an outwardly extending flange 19 and the offset portion is provided with holes 20. Formed on the opposite side edge of each section is an extension 21 which is bent outwardly and then inwardly to define a retaining flange 22 within which the flange 19 of the adjacent section is designed to be slidably engaged. The extension 21 is provided with holes 23 registering with the holes 20 and bolts 24 are passed through these registering holes for securing the sections together.

Adjacent their ends the tensions of the collar 15 carry ears 25 which are apertured for the passage of securing bolts 26 whereby to hold the collar sections in proper end to end engagement.

At its upper end each section 10 is bent downwardly and then upwardly to define a hook-shape portion having a channel 28. When four of the sections 10 are secured together as above described and as shown, it will be seen that the collar 15 constitutes a ring adapted for engagement with the upper end of the furnace casing. It will also be seen that the upper ends of the sections will constitute a square. The top may be closed by means of a plate 29 having a depending flange 30 engaged within the channel 28 and it may in some instances be found advisable and in fact preferable to cover this top 29 with sand, as indicated at 31.

In Figures 6 to 8 the construction is substantially the same except that each section 32 has its upper end or edge formed with an outwardly extending flange 33. The numeral 34 designates the top plates which are formed as segments and these top plates each have one straight edge formed with an upstanding flange 35 and the other edge formed with an extension 36 bent backwardly, then

upwardly and then downwardly to define a retaining flange 37. When the segments are assembled the flanges 35 of each section will be engaged within the retaining flange 37 of the adjacent section so that all the segments will be held in properly engaged relation. The outer curved edge of each segment 34 is formed with a retaining flange 38 engageable over the flange 33 at the upper edge of each section. If desired, a reinforcing ring 39 may be disposed beneath the segment and be formed segmental in the same manner and this ring is adapted to be secured in place by suitable bolts 40.

In Figure 9 we have shown a slightly different type. In this form there is no plate whatever used and the upper ends of the sections 41 are curved in the same manner as the lower ends and have secured therebetween a collar 42 which extends upwardly and which is preferably crimped, as shown at 43, for engagement thereon of a stove pipe or the like.

From the foregoing description and a study of the drawings it will be apparent that we have thus provided a very simple furnace top construction which is formed in sections quickly and easily engageable, these sections being furthermore interchangeable so that one may be readily replaced when necessary without affecting the others in any way.

While we have shown and described the preferred embodiment of our invention, it is of course to be understood that we reserve the right to make such changes in the

form, construction, and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described our invention, we claim:

1. A furnace casing top comprising a plurality of similar sections each formed at its lower edge with a depending portion adapted for engagement with a furnace casing and each having its upper edge formed with a flange, interengaging flanges formed at the adjacent edges of the sections and adapted for connection whereby the sections may be united to define a closed structure, and a top detachably connected with the flanges at the tops of the sections.

2. A furnace casing top comprising a plurality of similar sections each formed at its lower edge with a depending portion adapted for engagement with a furnace casing and each having its upper edge formed with a flange, interengaging flanges formed at the adjacent edges of the sections and adapted for connection whereby the sections may be united to define a closed structure, and a top detachably connected with the flanges at the tops of the sections, said top being likewise formed in similar sections corresponding in number to the number of the first named sections and having their adjacent edges formed with interengaging flanges whereby to be rigidly connected.

In testimony whereof we affix our signatures.

ERNST KREUTZBERG.
FRED MOULTON.