Nov. 11, 1930. G. C. ANDERSON 1,780,896

PLATE FOR BURNERS

Filed Dec. 8, 1927 2 Sheets-Sheet 1

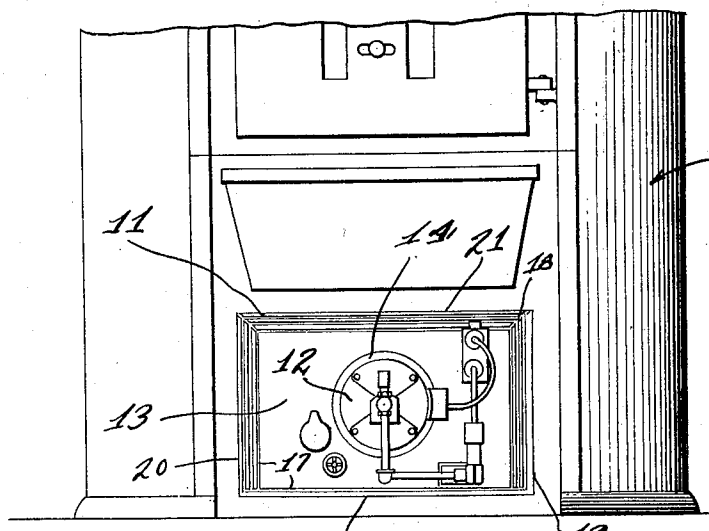


Fig. 1.

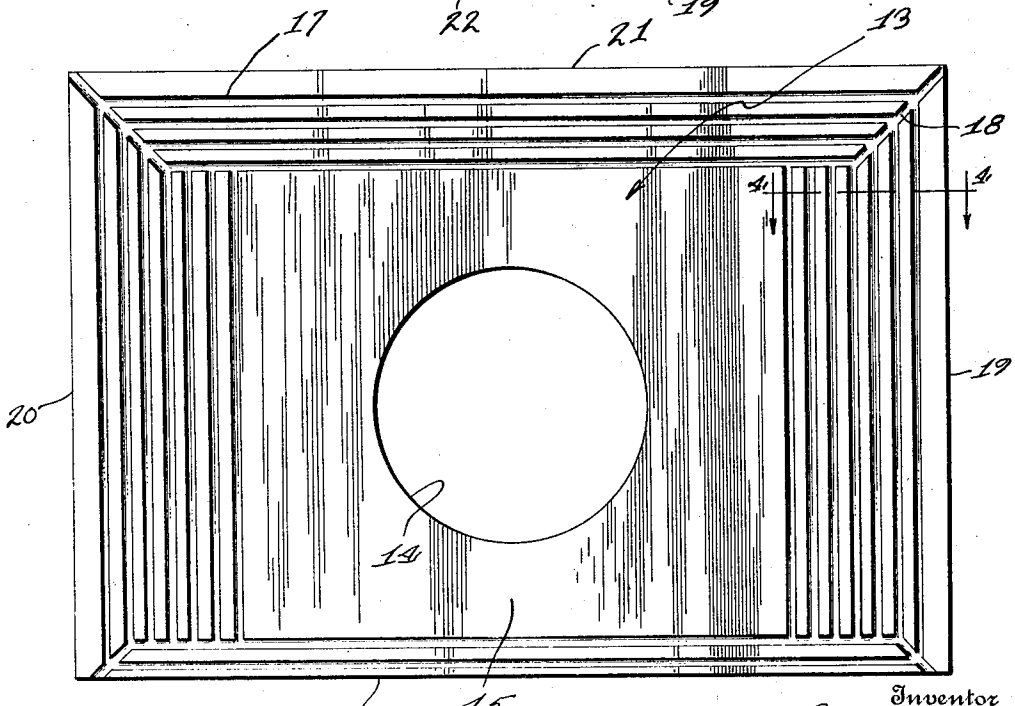


Fig. 2.

Inventor
George C. Anderson

By Whittemore Hulbert
Whittemore & Belknap

Attorneys

Nov. 11, 1930. G. C. ANDERSON 1,780,896

PLATE FOR BURNERS

Filed Dec. 8, 1927 2 Sheets-Sheet 2

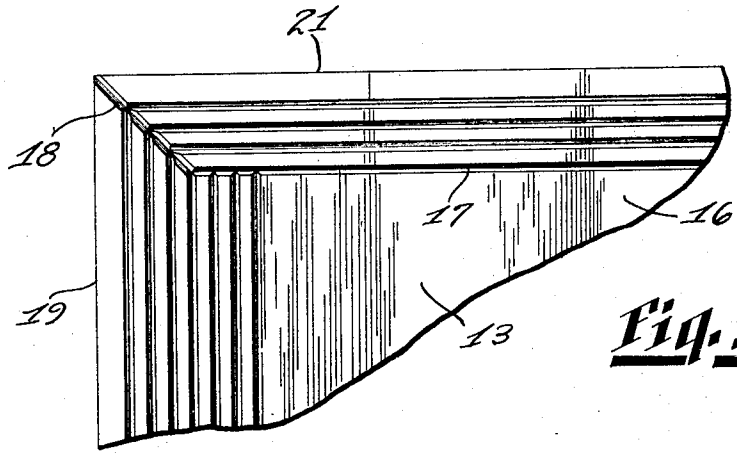


Fig. 3.

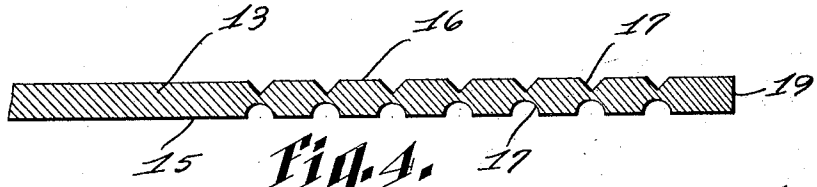


Fig. 4.

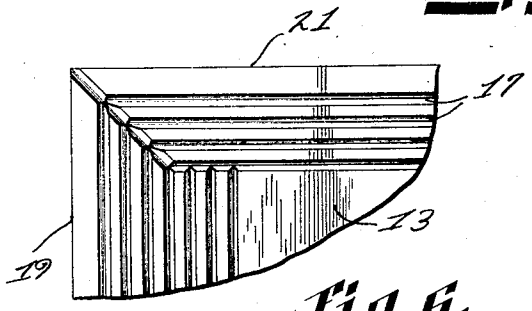


Fig. 6.

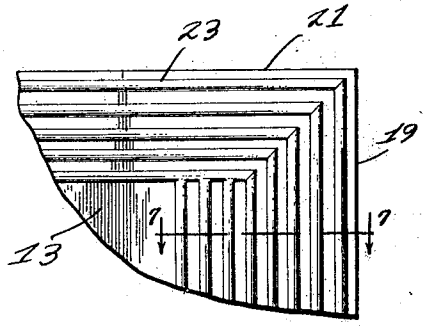


Fig. 5.

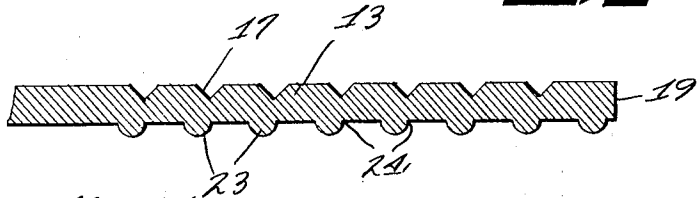


Fig. 7.

Inventor
George C. Anderson

By W. Britton Hulbert
W. Britton Belknap

Attorneys

Patented Nov. 11, 1930 1,780,896

UNITED STATES PATENT OFFICE

GEORGE C. ANDERSON, OF DETROIT, MICHIGAN, ASSIGNOR TO COPE-SWIFT COMPANY INCORPORATED, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN

PLATE FOR BURNERS

Application filed December 8, 1927. Serial No. 238,654.

This invention relates generally to oil burner constructions and more particularly to oil burner installation and has as one of its primary objects to facilitate such installation and to materially reduce the cost thereof.

The usual method of installing oil burners consists in removing either the ash or fuel door of the heating plant and substituting therefor, a plate designed to accurately close the fuel or ash door opening and to carry the oil burner. While this method has been found to be satisfactory, a serious inconvenience has been commonly experienced in obtaining a plate of the required size to accurately fit in the aforesaid openings owing to the variation in size of these openings in different types of heating plants.

The present invention contemplates eliminating the foregoing disadvantages and to provide for simplifying the method of installation as well as reducing the cost of the same by introducing a plate for supporting the oil burner which may be readily adapted to various sized openings and which may be developed from a single piece of metal.

While in particularizing upon the advantages and features of the present invention, particular stress has been placed upon the association of the adapter plate with oil burner installation and while the illustrative embodiment of the invention herein shown and described is adapted for use in connection with such installation, the invention is broader than this in its scope and is equally applicable for use in connection with various other forms of installation.

Other advantages and novel features of construction which contribute materially to the mechanical efficiency of the device and also add materially to its commercial value and acceptability together with the above objects and advantages will be made more apparent as this description proceeds especially when considered in connection with the accompanying drawings wherein:

Figure 1 is a front elevation of a heating plant showing an adapter plate constructed in accordance with my invention attached thereto;

Figure 2 is a front elevation of the adapter plate;

Figure 3 is a fragmentary rear elevation of the adapter plate shown in Figure 2;

Figure 4 is a sectional view taken on the plane indicated by the line 4—4 of Figure 2;

Figure 5 is a fragmentary elevation of a modified form of plate;

Figure 6 is a fragmentary rear elevation of the plate shown in Figure 5; and

Figure 7 is a sectional view taken on the plane indicated by the line 7—7 of Figure 5.

Referring now to the drawings wherein like reference characters indicate like parts, it will be noted that there is illustrated fragmentarily, a heating plant 10 having the usual ash receiving opening 11 within which the oil burner mechanism 12 is preferably mounted.

For sealing the opening 11 I provide an adapter plate 13 apertured as at 14 for receiving the burner 12. As shown the opposite faces 15 and 16 of the plate are provided adjacent the edges thereof with the parallel scores 17. Any suitable number of scores may be formed in the plate, several of which preferably extend completely around the same and are connected at the corners thereof by means of the diagonal scores 18, the arrangement being such that if the plate 13 is found to be slightly longer than the opening 11 for which it is adapted the plate may be readily made to accurately fit the opening by merely breaking off the required amount of material from either or both the edges 19 and 20 of the plate along the several scores provided for this purpose. However, in breaking off portions from either or both the edges 19 and 20 of the plate, portions of the adjacent edges 21 and 22 thereof will project outwardly beyond the line of break and accordingly it becomes necessary to sever these projecting portions flush with the edges of the plate. This severing operation may be readily accomplished by any suitable cutting tool. On the other hand if it is found that the width of the plate 13 is slightly greater than the width of the opening within which it is to be engaged, the required amount of material may be removed from the plate by break-

ing off portions of the edges 21 and 22. At the completion of this operation it will be noted that portions of the adjacent edges 19 and 20 will project beyond the edges 21 and 22 and may be removed in any suitable manner. However, in the event that the plate 13 is found to be too wide as well as too long, it may be adjusted to proper size by removing a certain predetermined amount of material from each of the edges 19, 20, 21 and 22. In this latter operation, providing that a uniform amount of material is removed from each of the edges of the plate, the severing operation is eliminated owing to the fact that certain of the scores 17 extend completely around the plate 13 parallel to the edges thereof.

In the modified form of the invention illustrated, in Figures 5 and 6 the plate 13 is scored upon one face only, the opposite face being formed with a plurality of reinforcing ribs 23. The reinforcing ribs preferably correspond in number to the scores and have the outer edges 24 thereof diametrically opposite the scores so that the ribs will not interfere with the adjusting of the plate. Moreover by reason of this construction the plate will not be materially weakened by the scoring operation as the ribs are so positioned and designed as to compensate for the material removed during the scoring of the plate.

Thus from the foregoing, it will be noted that I have provided a standard adapter plate which may be accurately fitted to an opening at the point of installation thereby facilitating such installation and materially reducing the cost thereof.

What I claim as my invention is:

1. As a new article of manufacture, a substantially rectangular plate having a circular opening therein for receiving an oil burner and having a series of scores therein arranged parallel to the edges thereof, said plate further having diagonal scores extending inwardly from the corners thereof and intersecting the scores disposed parallel to adjacent edges of the plate for the purpose set forth.

2. In combination, a heating plant having an opening therein for receiving an oil burner, and means for supporting the oil burner within said opening, said means including a plate having a series of scores therein arranged parallel to the edges thereof and having diagonal scores extending inwardly from the corners thereof and intersecting the parallel scores aforesaid.

3. As a new article of manufacture, a frangible plate having grooves extending along adjacent edges of the plate and having a diagonal groove extending inwardly from one edge of the plate and intersecting the grooves aforesaid.

4. As a new article of manufacture, a frangible plate having a diagonal groove extending inwardly from an edge of said plate and having another groove arranged parallel to an edge of the plate and opening into the diagonal groove aforesaid.

5. As a new article of manufacture, a frangible plate having grooves arranged parallel to adjacent edges of the plate and terminating short of the opposite edges of the plate and short of each other, said plate further having a diagonal groove extending inwardly from an edge of the plate and connecting the grooves aforesaid.

6. As a new article of manufacture, a frangible plate having scores formed in one face thereof and extending along adjacent edges of the plate, said plate further having a diagonal score extending inwardly from one edge of the plate and intersecting the scores aforesaid, and a continuous rib formed on the opposite face of the plate and arranged parallel to the first mentioned scores.

7. As a new article of manufacture, a frangible plate having scores formed in one face thereof and extending along adjacent edges of the plate, said plate also having a diagonal score extending inwardly from one edge of the plate and intersecting the scores aforesaid, and a continuous reinforcing rib formed on the opposite face of the plate and arranged parallel to the first mentioned scores, said rib having one longitudinal edge portion arranged in alignment with the first mentioned scores.

In testimony whereof I affix my signature.

GEORGE C. ANDERSON.