July 3, 1956

L. A. BENDER

2,752,691

FIREPLACE FORM

Filed Oct. 18, 1954

2 Sheets-Sheet 1

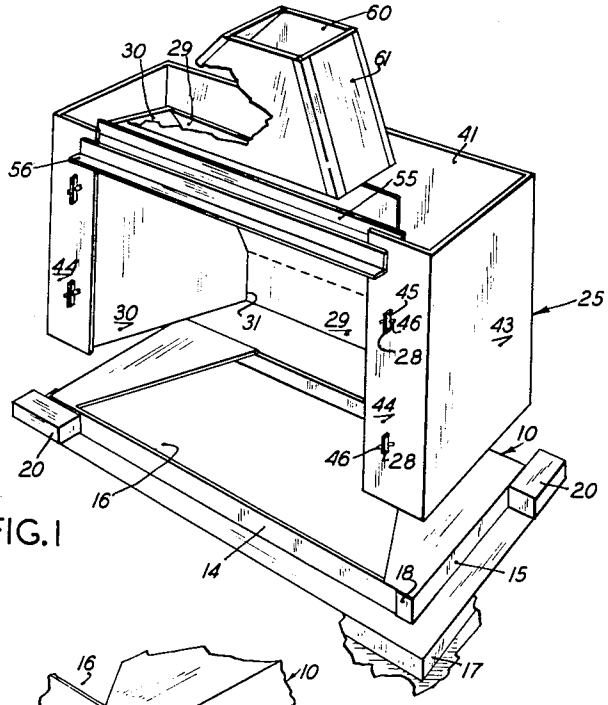


FIG. 1

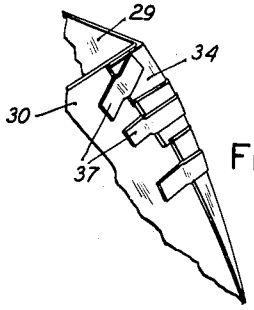


FIG. 7

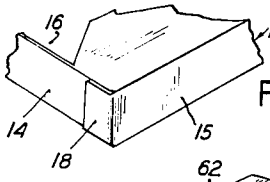


FIG. 8

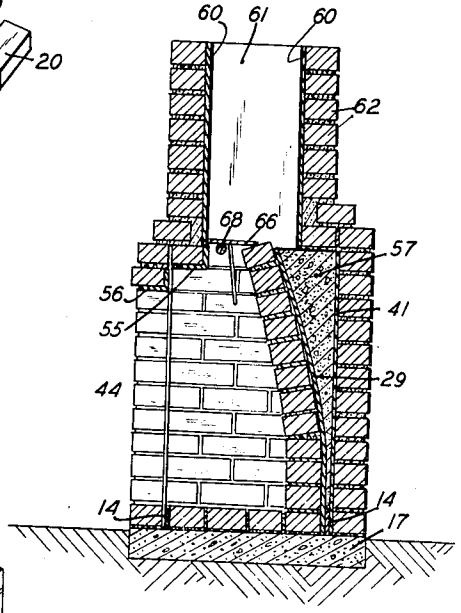


FIG. 10

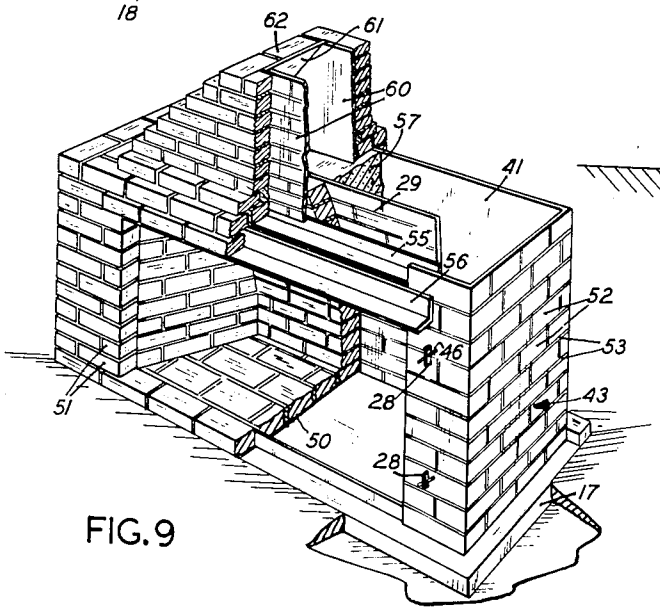


FIG. 9

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2 Sheets-Sheet 2

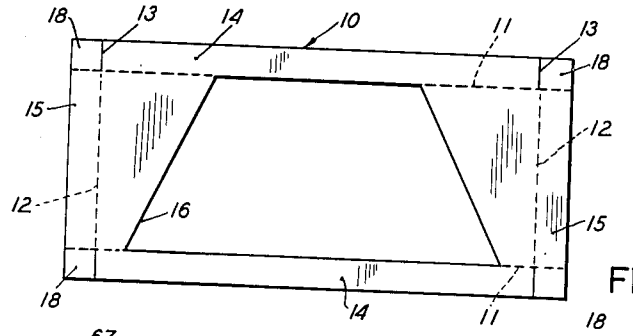


FIG. 2

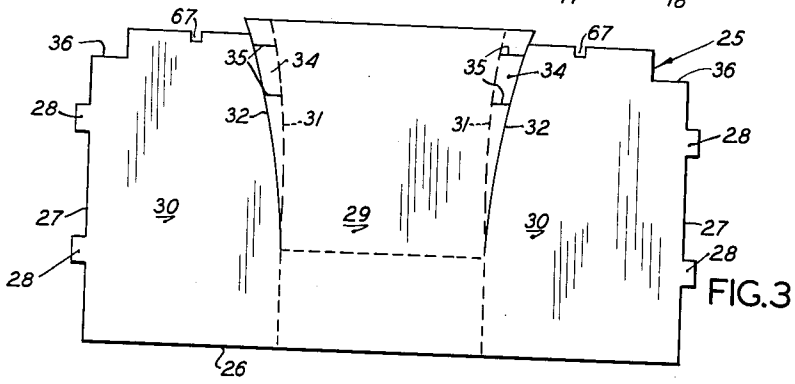


FIG. 3

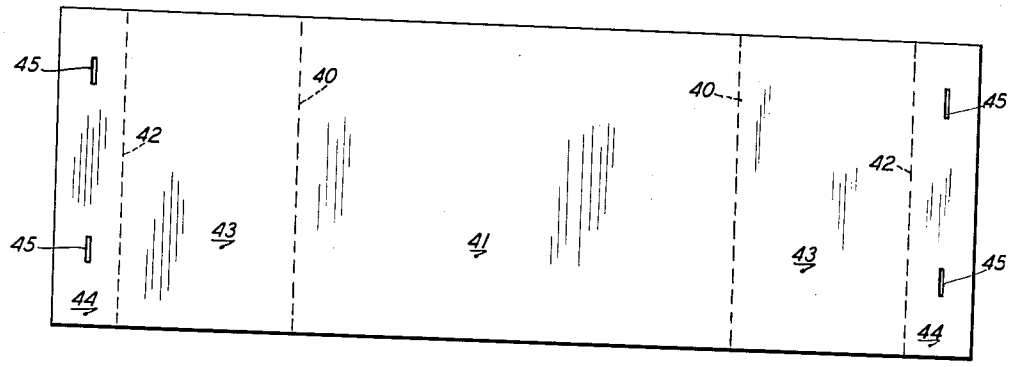


FIG. 4



FIG. 6

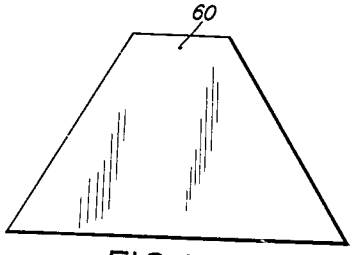


FIG. 5

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FIREPLACE FORM

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Application October 18, 1954, Serial No. 462,824

4 Claims. (Cl. 33—174)

The present invention relates to a form for constructing a fireplace, and more particularly to a form made of cardboard or like inexpensive metal for guiding the erection of a fireplace when utilizing brick, stone or other material forming a self-sustaining wall.

It has long been recognized that the construction of a fireplace requires special skill on the part of the builder, and heretofore it has not been considered a job for amateurs. However, the expense of specialized personnel experienced in constructing fireplaces has deterred many persons from retaining such specialists to construct a fireplace as they desire, and they have been further deterred from proceeding to construct the same themselves by reason of their own lack of knowledge and inexperience. Particular difficulty is encountered in constructing the fireplace firebox, and an amateur having no experience at bricklaying ordinarily has small measure of success in constructing the firebox in such fashion that the completed fireplace will draw properly.

It is an object of the present invention to provide a form to assist in the building of a fireplace.

More particularly, it is an object of the invention to provide a form for guiding the erection of fireplaces built from material such as brick, stone and the like with which self-supporting walls may be constructed.

A further object of the invention is to provide a fireplace building form which is contoured to guide the erection of the fireplace of brick and which form is lined and marked to indicate the positioning of the bricks and the mortar joints therebetween.

A further object of the invention is to provide a form of the character described which may be manufactured from cardboard or other inexpensive sheet material.

Still another object of the invention is to provide cut and scored blanks of sheet cardboard which may be easily and quickly assembled to provide a form for use in constructing a fireplace.

Other objects and advantages of the invention will become more apparent hereinafter.

Briefly stated, the fireplace form of the invention comprises several sheets of cardboard cut and scored in suitable fashion so the same may be folded and secured together and set up to define the outline of the hearth and the interior profile of the firebox and the outer walls of the fireplace. The position of each brick and mortar joint is indicated on the exposed surface of the form so that inexperienced persons may easily and quickly build the fireplace by merely laying bricks against the form in the indicated places.

With reference to the drawings:

Fig. 1 is an exploded perspective view of the form of the invention illustrating how the same is erected;

Fig. 2 is a plan view of the sheet for the base form member;

Fig. 3 is a plan view of the sheet from which the firebox form is erected;

Fig. 4 is a plan view of the sheet from which the outer wall defining form is erected;

Fig. 5 is a plan view of one of the panels for constructing the form for the chimney throat;

Fig. 6 is a plan view of another portion of the form for constructing the chimney throat;

Fig. 7 is a fragmentary perspective view showing a detail of the erected form;

Fig. 8 is a further fragmentary perspective view showing a detail of the form;

Fig. 9 is a perspective view showing the form and a partially erected fireplace; and

Fig. 10 is a sectional view through a completed fireplace.

Referring now to the drawings, the base form member comprises a rectangular sheet or panel **10** shown in plan in Fig. 2. Preferably the panel **10** is dimensioned to the outline of the fireplace and is scored to provide a pair of longitudinally extending fold lines **11** spaced inwardly one from each of the longitudinal edges of the panel by substantially the width of a brick, and a pair of laterally extending fold lines **12** spaced inwardly one from each of the opposite ends of the panel, also by a brick width, to define opposite edge flaps **14** and opposite end flaps **15**, respectively. The panel is cut inwardly along each of the lateral fold lines **12** from each of the opposite edges of the panel, as indicated at **13**, to the intersection of the fold line **12** with the longitudinal fold line **11** nearest the corresponding edge of the panel to define a rectangular tab **18** at each corner of the panel. The central portion of the panel **10** is cut out as indicated at **16** corresponding to the outline of the lower edge of the back wall and the side walls of the firebox of the fireplace.

In constructing a fireplace, the flattened panel **10** may be used as a pattern to outline on the ground the base or foundation of the fireplace which generally, though not necessarily, comprises a flat concrete pad indicated at **17** in Fig. 1. After the pad **17** has been prepared, the edge and end flaps **14**, **15** of the panel **10** are folded downwardly at right angles to the central portion thereof, and the end tabs **18** of the end flaps **15** are folded and secured in any suitable manner to the edge flaps **14** as shown in Fig. 8, so as to retain the flaps in their downwardly folded relation. The panel **10** is then centered upon the previously prepared pad **17** as, for example, by simply using bricks **20** temporarily laid in place along the edge of the pad **17** as shown in Fig. 1.

Thereafter, the form for guding the construction of the firebox is assembled and erected in position. The firebox form **25** is shown in Fig. 3 as cut and scored from a single, generally rectangular sheet of cardboard, though it will be apparent that the form may be constructed of two or more sheets suitably joined together. As shown in Fig. 3, the sheet for the firebox form is provided with a straight bottom edge **26** and a pair of vertical end edges **27** each having a pair of outwardly projecting tabs **28**, the purpose of which will be made known hereinafter.

The sheet **25** is cut and scored to define a centrally disposed, rear wall panel **29** and a pair of flanking side wall panels **30**. The rear wall panel **29** is defined by a pair of score lines **31** extending upwardly from the bottom edge **26** at right angles thereto for a short distance, each of the score lines then curving along a predetermined line upwardly and outwardly toward the adjacent end of the sheet. The side wall panels are each defined by the straight lower portion of the score lines **31** and by diverging cut lines **32** which extend upwardly from the straight portion of the score line **31** and curve toward the adjacent end of the sheet at a greater degree than do the score lines **31**. The portion of the sheet spaced between the cut lines **32** extends above the top edges of the side panels **30** by a predetermined amount. The arcuate-sided wedges **34** defined by the score lines **31** and cut lines **32** preferably are slit, as at **35**, to facilitate erection of the firebox form, as will be explained. The opposite upper

end corners of the side panels adjacent the end edges 27 may be provided with a rectangular cutout 36 for a purpose also to be explained.

The firebox form 25 is erected by folding the opposite side panels 30 along the straight portions of the score lines 31 until the side panels diverge from the rear wall panel 29 at the desired angle. The rear wall panel 29 is then bent forwardly and downwardly against the rear edges of the side panels, which edges are, of course, defined by the cut lines 32. The score lines 31 are so formed on the sheet that when the rear wall is brought forwardly into contact with the side wall panels, the score lines 31 fall along the line of contact of the side wall panels with the rear wall panel, as best seen in Fig. 1. The rear wall panel 29 is of greater height than the side wall panels 30 so that when bent into position its top edge is adjacent the top edges of the side wall panels, as may be seen in Fig. 1. Thereafter, the wedges 34 are bent along the score lines 31 upon the outer surface of the corresponding side wall panel 30. This is facilitated by means of the slits 35 which permit the various sectors of the wedges 34 to overlap as necessary and as shown in Fig. 7. The wedges may be secured to the side panels by any suitable means such as by adhesive tapes 37. Thereafter, the erected firebox form is inserted within the cutout portion 16 of the base form.

The outer wall form, shown in plan in Fig. 4, comprises a rectangular sheet of cardboard scored transversely along parallel lines 40 to define a centrally disposed, rear wall panel 41. The sheet is further scored along a pair of lines 42 spaced outwardly from the lines 40 to define a pair of side wall panels 43, one on each of the opposite sides of the rear wall panel 41, and a pair of breast or front wall panels 44, one on each end of the sheet. The outer wall form is adapted to be folded along the various fold lines and to be erected on the pad 17 about the base form 10 so that the rear wall panel 41 abuts the rear edge of the base form, the side wall panels 43 abut the side edges of the base form, and the front wall panels 44 extend inwardly along the front edge of the form. Preferably the front wall panels extend inwardly of the side wall panels 30 of the firebox form and are provided with slits 45 for receiving the tabs 28. A skewer 46, such as a nail, or other suitable means may be provided to secure the tabs in the slits and to prevent their accidental withdrawal. This interlocking arrangement helps to stabilize the erected form.

When the form has been erected as described, the hearth 50 may be laid in the hearth opening 16 and the firebox and outer walls erected by laying bricks 51 directly against the corresponding panels as indicated in Figs. 9 and 10, the form defining the inner surface or profile of the firebox and outer walls. Preferably the form panels are lined and marked to show the position of each brick, as indicated at 52, and each mortar joint, as indicated at 53, so that the user of the form can, without fail, construct the firebox and outer walls to the proper dimensions. The brick and mortar markings have been shown in Fig. 9 only. It is to be understood that, though lined and marked to guide the erection of a brick fireplace, the form may be used to indicate the contour of a fireplace of stone or other material from which self-supporting walls may be erected.

As indicated most clearly in Fig. 1, the cut-out corners 36 of the firebox side wall panels are for the purpose of indicating the proper position of the inner arch lintel 55. The position of the outer arch lintel 56 may also be suitably indicated by markings on the front wall panels 44.

After the firebox and outer walls are erected, the intervening space between them may be filled with stone, rubble, or sand, as indicated at 57 in Figs. 9 and 10. Thereafter the chimney may be erected.

A form for guiding the construction of the chimney throat may be provided and which in this instance comprises a pair of trapezoidal-shaped panels 60, one of which is shown in plan in Fig. 5, and a pair of rectangular panels 61, one of which is shown in plan in Fig. 6. The panels 60, 61 are adapted to be taped together as shown in Fig. 1 to provide an upwardly tapering, hollow form adapted to be set over the top opening of the firebox. Thereafter the chimney throat 62 may be laid, the inclined surfaces of the panels 61 indicating how the side walls of the throat should be corbelled. The panels 60, 61 also may be marked to show the correct position of the bricks laid thereagainst. A chimney stack (not shown) may be erected upon the throat if desired. Also, if desired, a damper 66 may be installed before the throat is erected. The firebox side wall panels 30 may be provided with notches 67 for indicating the position of the damper support rod 68.

The form shown may be shipped collapsed and flat, hence conveniently, and may be easily erected by the purchaser. As indicated before, the form may be made of relatively inexpensive cardboard which is desirable since the form is left in place and is not intended to be reusable, though conceivably the erection of the fireplace could be carried out in such fashion that at least certain portions of the form could be salvaged. Most important is the fact that, by using the form, the most inexperienced person may relatively easily construct a fireplace having the proper dimensions.

Having illustrated and described a preferred embodiment of the invention, it should be apparent to those skilled in the art that the invention permits of modification in arrangement and detail. I claim as my invention all such modifications as come within the true spirit and scope of the appended claims.

I claim:

1. An expendable form of cardboard for use in construction of a fireplace of brick, stone, or the like, comprising a base form defining the contour of the inner edges of the fireplace breast, side and rear walls and having a cutout portion defining the lower, inner edges of the firebox and hearth, a firebox form for outlining the peripheral surface of said firebox and comprising opposite side wall portions and a forwardly inclined rear wall portion adapted to be set into said hearth cutout portion, an outer wall form for outlining the inner surface of the front walls, side walls and rear wall of said fireplace, and a throat form adapted to be rested upon the top edges of the constructed firebox for outlining the inner surface of the chimney throat.

2. A collapsible form of cardboard for use in constructing a fireplace having self-supporting walls of brick, stone, or like material, comprising an outer wall defining portion having a plurality of flat panels hingedly connected along parallel fold lines whereby the panels may be flat folded against one another for shipping, said outer wall defining portion panels being erectible to define the interior surface of the back, side and opposite front walls of the fireplace, a firebox defining portion comprising a plurality of initially flat, hingedly connected panels erectible to define the interior periphery of the firebox, said firebox defining portion panels comprising a pair of opposite side wall defining panels each having an upwardly and forwardly slanting rear edge, and a rear wall defining panel adapted to abut said rear edges thereby to define a forwardly slanting rear wall, said firebox side wall defining panels and said front wall panels having interengaging means to lock the same together upon erection whereby said portions define a stable unit for guiding the laying of the walls of the fireplace.

3. A form formed of cardboard or like sheet material for use as a guide in constructing a fireplace of brick, comprising a base form member adapted to be placed upon a horizontal foundation and being of rectangular outline and dimensioned substantially to correspond to the inner dimensions of the outer walls of the fireplace, said base form member having a cutout portion therein

defining the outline of the firebox for guiding the laying of the hearth bricks upon said foundation, an outer wall form member comprising a plurality of panels hingedly connected along parallel fold lines and adapted to extend upwardly adjacent the back, opposite sides and front of said base form member, respectively, to guide the laying of the back wall, side walls and front wall of the fireplace, a firebox form member for outlining the inner surface of the firebox walls and comprising a forwardly inclining rear wall member and a pair of forwardly diverging, vertical side wall members, said firebox form member being adapted to be set within said hearth cutout and to be supported on said foundation, said form being lined and marked on the surfaces thereof against which brick is laid to indicate the positioning of the bricks and the mortar therebetween whereby, after erecting said form upon said foundation, a fire place can be easily and quickly constructed by laying bricks against the outlining surfaces of the form.

4. A collapsible form for defining the interior periphery of a fireplace and for providing a guide against which brick may be laid to construct a fireplace of proper dimension, said form comprising a first rectangular sheet of cardboard scored transversely along parallel lines to provide fold lines between a centrally disposed rear wall panel, a pair of side wall panels one on each of the opposite side edges of said rear wall panel, and a pair of front face panels one on each of the opposite ends of said first sheet, said first sheet being adapted to be erected in the rectangular outline of the fireplace, a second generally rectangular sheet of cardboard having a top and a bottom edge, said second sheet being scored to provide a pair of

parallel fold lines extending upwardly a short distance from said bottom edge and at right angles thereto and being cut upwardly and outwardly from said fold lines to said top edge in symmetrically diverging lines to provide a centrally disposed firebox rear wall panel and a pair of firebox side wall panels one on each side thereof, said firebox side wall panels being foldable relative to said firebox rear wall panel along said fold lines in diverging relation to one another corresponding to the outline of the firebox, and said firebox rear wall panel being adapted thereafter to be bent into abutting relation with the edges of said firebox side wall panels defined by said cut lines, thereby to define a form of the inner periphery of the firebox walls, said firebox form being adapted to be mounted within said outer wall form and to cooperate therewith in defining the interior periphery of said fireplace, said sheets being lined and marked to indicate the positioning of the bricks and mortar joints.

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