

April 9, 1935.

B. ALTHEIMER

1,996,785

METHOD OF MAKING RADIATOR SHIELDS BY FOLDING

Filed July 21, 1930

2 Sheets-Sheet 1

FIG. 1.

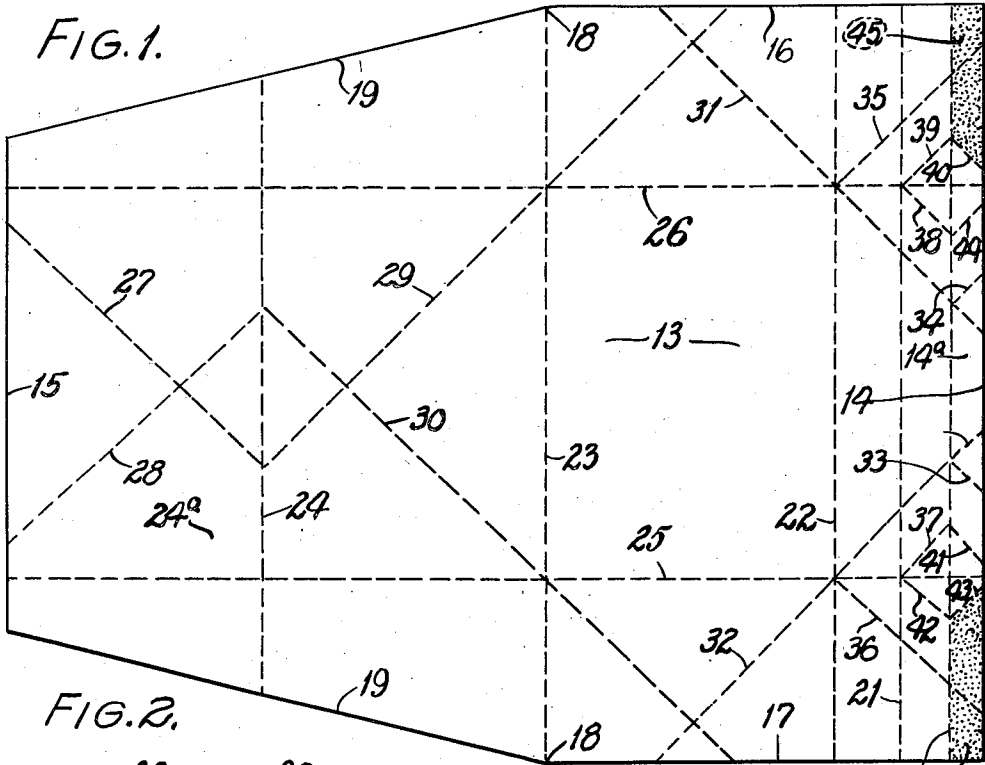


FIG. 2.

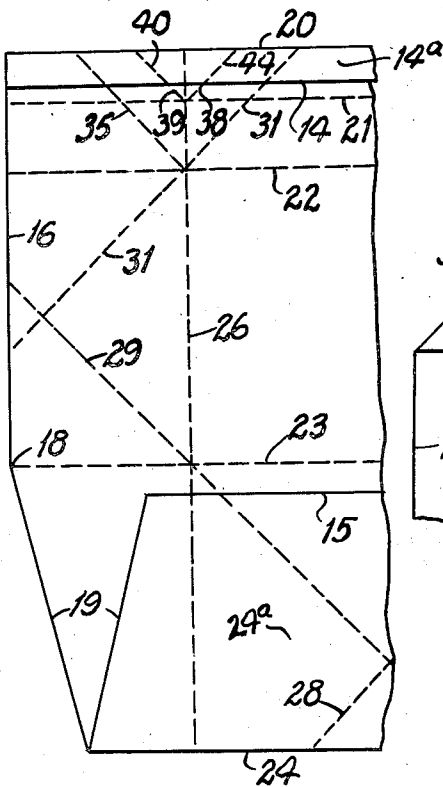


FIG. 3.

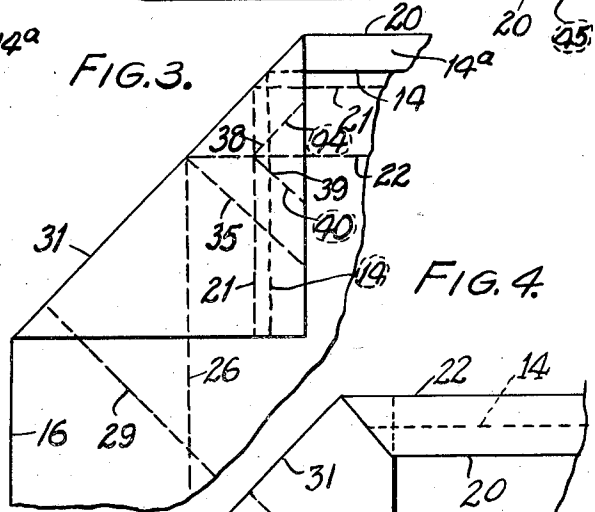
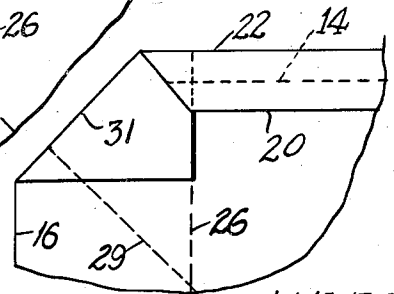


FIG. 4.



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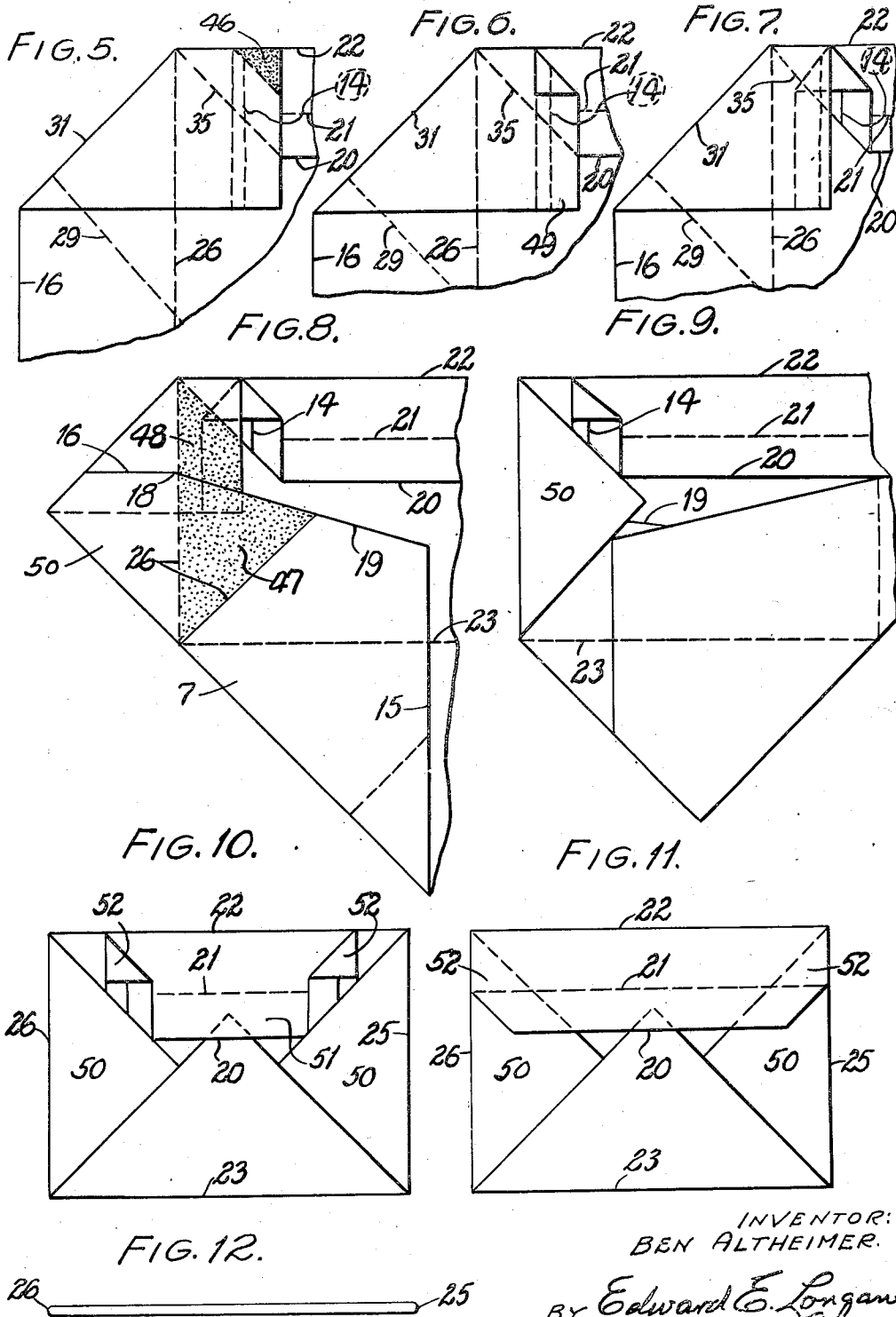
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2 Sheets-Sheet 2



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1,996,785

METHOD OF MAKING RADIATOR SHIELDS
BY FOLDINGBen Alzheimer, University City, Mo., assignor to
Myrtle Alzheimer, University City, Mo.

Application July 21, 1930, Serial No. 469,526

3 Claims. (Cl. 93—1)

My invention relates to improvements in method of making radiator shields by folding, and has for its primary object the method of folding a sheet of paper into form so as to act as a radiator shield, the folding being accomplished on a flat surface and without the aid of any special form.

A further object is to fold a paper radiator shield in such a manner that it can be readily stacked for storage and when so folded will occupy a very small space.

In the drawings, Fig. 1 is a plan view of a sheet of paper used in my method of folding showing the various creases and folds by means of dotted lines;

Fig. 2 is a fragmental plan view showing the first and second steps of folding;

Fig. 3 is a fragmental view of one corner showing the third step of folding;

Fig. 4 shows the fourth step in the folding;

Fig. 5 is a fragmental view of a corner of the sheet showing the fifth step;

Fig. 6 is a similar view showing the sixth step;

Fig. 7 is a similar view showing the seventh step;

Fig. 8 is a fragmental view showing the eighth step;

Fig. 9 is a fragmental view showing the ninth step;

Fig. 10 is a view of the shield just prior to completing the folding;

Fig. 11 is a plan view showing the folding completed; and

Fig. 12 is an edge view of the folded article.

In carrying out my method, I provide a sheet of paper 13 having ends 14 and 15. These ends are parallel to each other. The sheet 13 also has edges 16 and 17 which are parallel to each other and extend at right angles to the end 14 for a predetermined distance terminating at a point indicated by the numeral 18.

From the point 18, I provide inclined edges 19 which terminate at the end 15. In folding my device, creases or score marks 20—21—22—23 and 24 are formed which are parallel to the ends 14 and 15. Creases or score marks 25 and 26 are formed which extend at right angles to the creases 20—21—22—23 and 24 and are positioned at a predetermined distance from the edges 16 and 17.

It will be noted that these creases are parallel to each other and to the edges 16 and 17. Continuing the folding are a plurality of creases 27—28—29—30—31—32—33—34—35—36—37—38—39—40—41—42—43 and 44. The last mentioned creases are formed diagonally to the previously mentioned creases or score marks,

My manner of folding is as follows:—

A sheet is laid out flat on a table or other plane surface and then folded along the line 24, thus bringing the lower portion 24A of the shield or sheet upward as illustrated in Fig. 2. The next step is to apply paste as indicated by the numeral 45 to the portion 14A and then turn that portion 14A down along the line 20 as illustrated in Fig. 2. The next step is to fold the sheet diagonally along the lines 31 and 32, a portion of this folding is illustrated in Fig. 3. The next step is to fold along the line 22 as illustrated in Fig. 4, after which the folded-in corners at each end of the folded tops of the sheet are brought out from underneath and placed uppermost on the sheet, then appearing as illustrated in Fig. 5. Then paste is placed on the extreme corners of the portions just brought uppermost, as indicated by the numeral 46 and the paste-covered corners then folded over on themselves as in Fig. 6 after which the portion 49 is turned under so that the shield will then have the appearance as shown in Fig. 7. The sheet is then folded over along the lines 29 and 30 as indicated in Fig. 8 and then paste is applied to the portions 47 and 48 after which the projecting portion 50 is folded over on the pasted surfaces 47 and 48 as in Fig. 9. The projecting portion at the bottom of the sheet when so folded will be triangular as illustrated at the lower end of Fig. 9. This pointed end is folded up and then may be pushed under the top flap 51. The device will now have the appearance of Fig. 10, after which the two upper corners 52 of the sheet are then folded over portions 50 as illustrated in Fig. 11. This completes the folding leaving the sheet in such a shape that it resembles an envelope.

It will be noted from Fig. 12 that the device lies perfectly flat and occupies very little space, consequently they can be readily stored and packed for shipment and by reason of employing the paste when the shield is unfolded, it will assume the proper shape automatically and no extra folding or shaping of the parts is required, thus it will be seen that I form a shield of flexible material for radiators which extends down the back of the radiator, partially along the sides, over the entire top and down over a small portion of the front and due to my particular folding, the portion between the end 14 and crease line 20 extends upward at an angle and forms a dust trap so that dust which is drawn up by the heat of the radiator will strike the top and instead of being forced into the

room will lodge in the dust trap from which it may be readily removed.

The material out of which my shield is made is impervious to the passage of dust so that all dust rising upward around the radiator coils will lodge in the dust trap and thus be prevented from being disseminated into the room.

Instead of using paste or adhesive, other securing or fastening means may be employed; when an adhesive is employed it must be of such a nature that it will not have its adhesive qualities affected by heat or moisture.

This invention is a continuation in part of patent application, Serial No. 344,239 filed by me March 5th, 1929 and allowed June 13th, 1930 and patent application, Serial No. 409,480 filed by me November 25th, 1929.

Having fully described my invention, what I claim is:—

1. The method of making a radiator shield by folding which consists in taking a sheet substantially rectangular in form which is impervious to the passage of dust and scoring the same so as to form permanent creases, certain of said scoring being at right angles to the remaining scoring and all of said scoring being parallel to certain edges of the sheet, folding a predetermined portion of the lower part of the said sheet upwardly, turning down the upper edge of said sheet so as to form a flap, folding the upper corners of said sheet diagonally, raising the inner portion of said folded corners and folding the same inversely over the upper portion of the sheet, tucking the inner edge of the folded corners under the corners and securing the upper end of the tucked under portions to the last-mentioned folded corners, folding the lower corners of the sheet diagonally upward so as to leave substantially triangular projections on both sides and the bottom of the sheet, folding a portion of the side triangular projections upon themselves and securing the same in position, and lastly, folding the lower triangular portion upward.

2. The method of making radiator shields by

folding which consists in taking a single sheet of flexible material substantially rectangular in form and impervious to dust, said sheet having a plurality of horizontal score lines parallel to its upper edge and at predetermined distances from each other and a pair of widely spaced parallel score lines at right angles to said first mentioned score lines, folding said sheet along the uppermost horizontal score line, folding said sheet diagonally across said fold, folding again horizontally, inverting the corners just formed, folding the tips of said inverted corners, then inverting said tips, folding the lower portion of the sheet toward the top to partly overlie said first diagonal fold, and securing predetermined parts of said folded portions together whereby a radiator shield having top, back, side, and front portions is formed, said front portion being provided with a dust trap.

3. The method of making a radiator shield by folding which consists in taking a sheet substantially rectangular in form which is impervious to the passage of dust and scoring the same so as to form permanent creases, certain of said scoring being at right angles to the remaining scoring and all of said scoring being parallel to certain edges of the sheet, folding a predetermined portion of the lower part of the said sheet upwardly, turning down the upper edge of said sheet so as to form a flap, folding the upper corners of said sheet diagonally, raising the inner portion of said folded corners and folding the same inversely over the upper portion of the sheet, securing the upper end of each of the last-mentioned inner portions to the folded corners with the inner edge of the last-mentioned folded corners underneath, folding the lower corners of the sheet diagonally upward so as to leave substantially triangular projections on both sides and the bottom of the sheet, folding a portion of the side triangular projections upon themselves and securing the same in position, and lastly, folding the lower triangular portion upward.

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