Nov. 5, 1929. W. S. ELTERS 1,734,568

RADIATOR HOOD

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Fig. 1

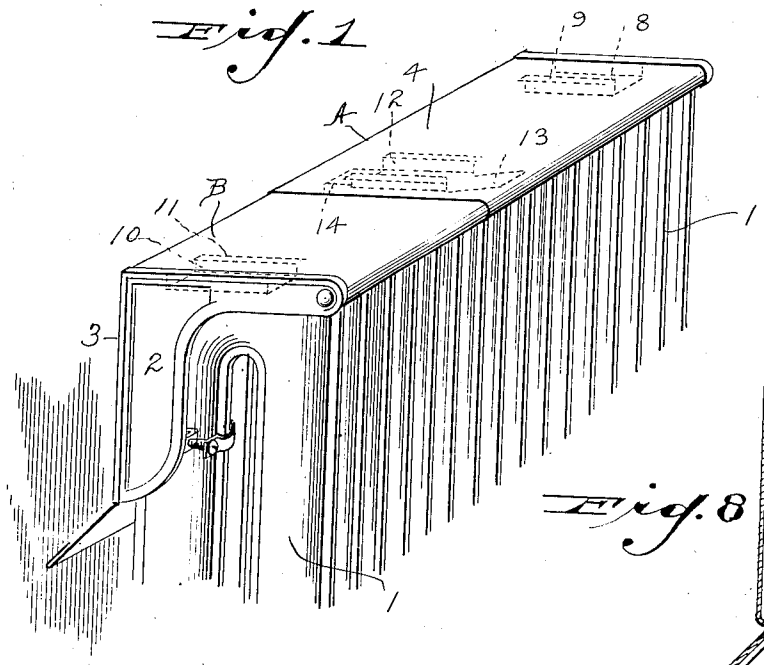


Fig. 8

Fig. 7.

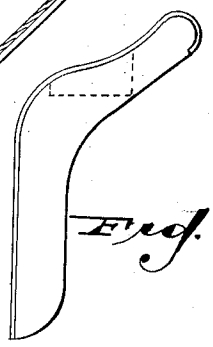


Fig. 2

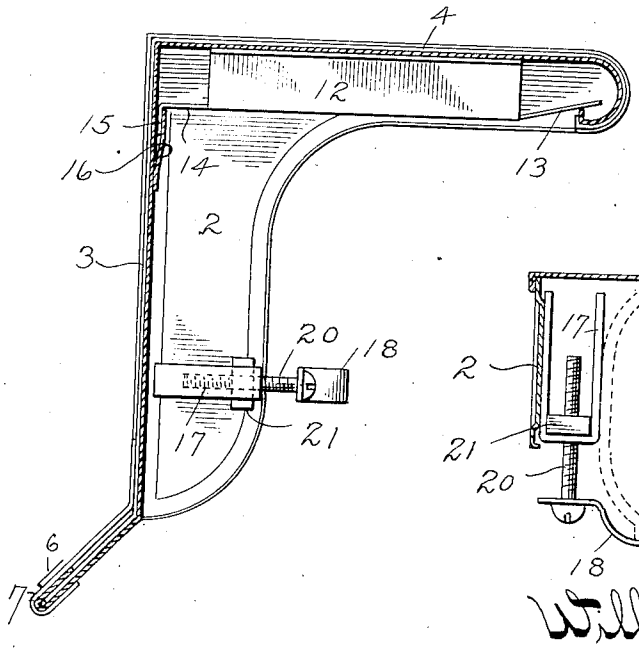
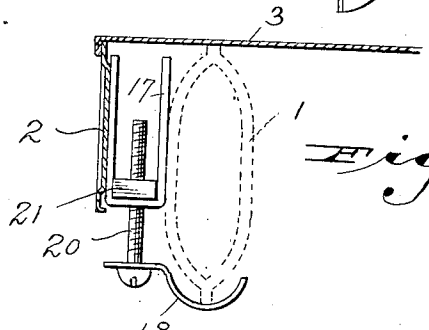


Fig. 5



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RADIATOR HOOD

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Fig. 3

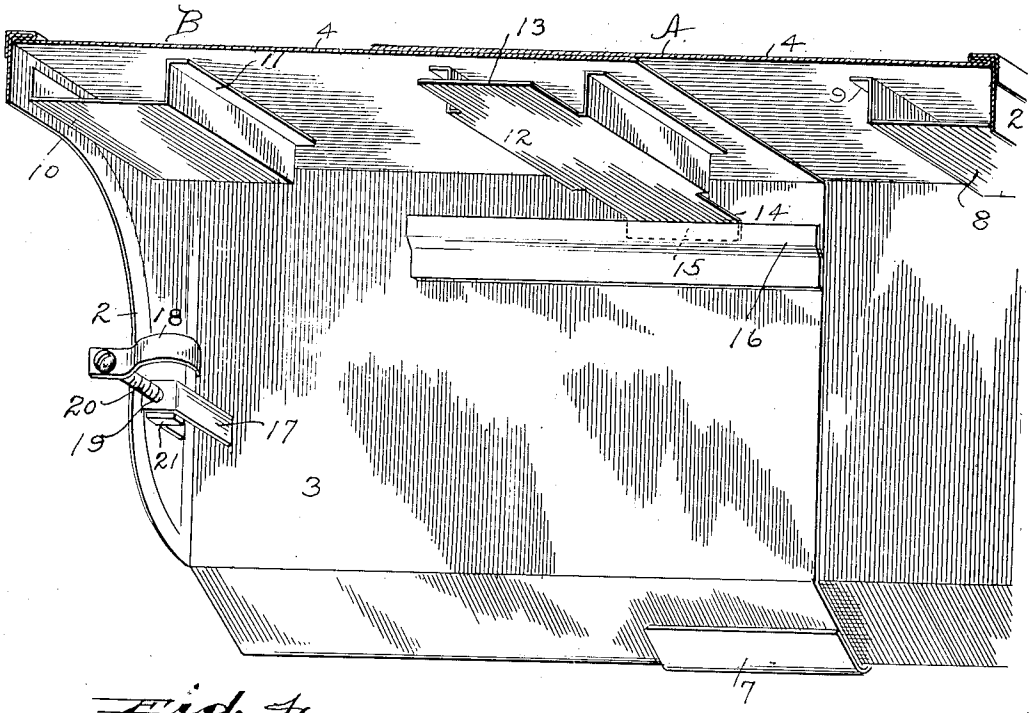


Fig. 4

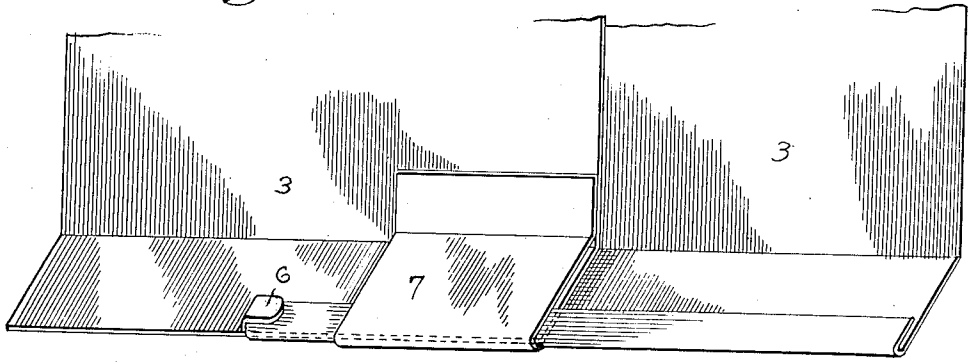
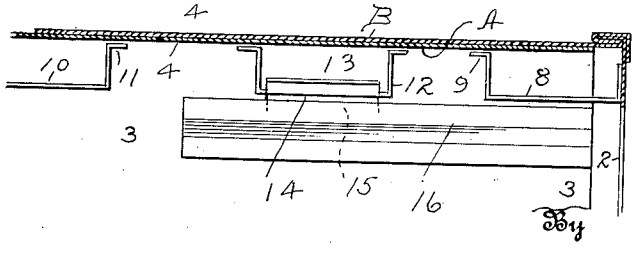


Fig. 6



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Patented Nov. 5, 1929

1,734,568

UNITED STATES PATENT OFFICE

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RADIATOR HOOD

Application filed July 18, 1927. Serial No. 206,539.

This invention relates to ventilating apparatus and more particularly to an adjustable hood or cowl for steam and hot water radiators for diverting and directing the air currents arising therefrom.

In the present invention there is contemplated a radiator hood or cowl comprising two telescopically adjustable sections arranged in overlapping slidable relation. Each of the sections embodies an end wall, a rear wall or skirt, and a top portion. The forward marginal edges of the top portion of the separate sections are turned or rolled upon themselves into semi-tubular form with the inturned margin of one section enclosed in and slidingly adjustable within that of the other section. The lower portions of the rear skirts of such sections are formed with interlocking plaits or folds. The plait or fold of one slidingly engages in that of the other. The interlocked portions of the rear walls extend downwardly and rearwardly to afford an angular extension to engage a wall in the rear of a radiator and so prevent the passage of air currents between the wall of the room and the rear wall or skirt portion of the hood or cowl.

In addition to these features there are provided on the under side of the top portion of the relatively adjustable sections spacer members adapted to rest upon the top of the radiator and so elevate the hood or cowl a limited distance thereabove. One of such spacers is provided on the under side of the top portion and adjacent to the end wall of each section while an adjustable spacer is provided adjacent the inner end of one of the overlapping sections on which it is independently slidably adjustable to medially support the top of the hood or cowl. These supports or spacer members are so arranged and attached as to permit the ends of the relatively adjustable telescopic sections to pass into overlapping relation when the hood or cowl is contracted to minimum length. In addition to these features, the end walls of the respective sections are provided with inwardly spaced or offset fingers which are adapted to contact the ends of the radiator and so maintain the end walls in predetermined spaced relation with the ends of the radiator structure. Attachments for securing the hood or cowl to the radiator are adjustably connected to such spacer fingers by adjusting bolts or links which serve to securely clamp the hood or cowl in place upon the radiator.

The object of the invention is to simplify the structure as well as the means and mode of applying such hoods or cowls to steam or hot water radiators, or the like, whereby they will not only be cheapened in construction but will be more efficient in use and capable of being easily and quickly attached and detached, adjustable for radiators of different sizes, and unlikely to get out of repair.

Such cowls or hoods of the present type are usually employed in residences, stores, office buildings, warehouses, and the like, for diverting and directing the air currents arising from steam and hot water radiators. As usually constructed such cowls or hoods are of integral construction, manufactured in predetermined sizes so that a dealer or manufacturer must carry in stock numerous hoods or cowls of different sizes to accommodate the various sizes of radiators to which they are to be applied, and which are not standardized. By the present construction the hood or cowl is adjustable to accommodate radiators of different lengths, thereby materially reducing the quantity of the stock necessarily carried by the dealer or manufacturer. Furthermore the hood or cowl is so engageable with the radiator that it will not be easily displaced and will tend to hold such engagement under all conditions. The walls of the hood or cowl are held in spaced relation with the radiator structure thereby insuring ample air spaces about the radiator within the hood or cowl and obstruction of the flow of air about the radiator is avoided. By making the hood or cowl contractable as herein disclosed such hoods or cowls may be arranged in less space for storage and shipment and may be conveniently and easily nested one within the other.

With the above primary and other incidental objects in view as will more fully

appear in the specification, the invention consists of the features of construction, the parts and combinations thereof, or their equivalents, as hereinafter described and set forth in the claims.

Referring to the accompanying drawing, wherein is shown the preferred, but not necessarily the only, form of embodiment of the invention, Fig. 1 is a perspective view of the adjustable hood or cowl applied to a conventional type of radiator. Fig. 2 is a transverse sectional view of the hood or cowl. Fig. 3 is a perspective view partly in section to illustrate the location and relation of the spacers or support. Fig. 4 is a rear view of the interlocked lower margins of the rear dependent portion of the hood. Fig. 5 is a detail sectional plan view illustrating the spacing fingers for the end walls and attachment hooks. Fig. 6 is a view similar to Fig. 3 showing the hood or cowl contracted and illustrating the overlapping relation of the end of the movable section and the spacer or support beneath the top of the hood. Fig. 7 is a detail view of a modification illustrating a different curvature of the end walls and top. Fig. 8 is a detail sectional view of a modification of the interlocking engagement of the sections.

Like parts are indicated by similar characters of reference throughout the several views.

In the accompanying drawing 1 indicates a conventional type of steam or hot water radiator. The hood or cowl comprises two relatively adjustable telescopic sections A and B. Each of these sections comprises an end wall 2 fixedly and rigidly connected with a rear dependent wall or skirt portion 3 and a top portion 4. The forward margins of the top portions 4 are turned or rolled downwardly and inwardly into substantially semi-tubular forms. The rolled margin of one of the sections is slidingly extended within that of the other section. The expansive tendency of the rolled margin of one section opposing the contractive tendency of the rolled margin of the other section affords sufficient frictional engagement to retain the respective sections A and B in their various positions of sliding adjustment. The top 4 and rear skirt portions 3 of the respective sections overlap each other. The lower marginal edges of the rear or skirt portions 3 are inclined rearwardly. The margin of one section is bent to reverse position to enclose that of the other section. The overlapping inclined portions are thus maintained in close contact while permitting their longitudinal sliding engagement. To limit extension of the shield, the end of the overturned flange is formed into a hook tongue 6 which engages a stop plate 7 attached to the other section. Such interlocked inclined extensions may be bent to greater or less degree of inclination to engage a wall of a room immediately in the rear of the radiator 1.

By this means the space between the radiator and the wall is closed and all warm air currents arising in the rear of the radiator are deflects forwardly beneath the hood or cowl and discharged from the front thereof. This prevents dust and dirt being carried upwardly in close proximity to the wall upon which it would find lodgement, giving to the wall a dirty unsightly appearance.

Located beneath the top portions 4 of the respective sections A and B and in close proximity to the end walls 2 are spacers or supports preferably formed from sheet metal. These spacers as illustrated are bent to channel shape, although obviously other forms of support or spacers may be employed. The spacer or support 8 attached to the outermost section A is loose along its inner margin 9 and also at its rear end adjacent to the dependent skirt 3 to enable the end of the sliding section B to pass above and behind such spacer or support 8. The spacer or support 8 is therefore attached only along its outer margin adjacent to the end wall 2 of the section A. The spacer or support 10 at the opposite end of the structure and carried by the innermost section B need not be loose on its inner margin 11 but may be secured at such margin to the telescopic section B. However, for simplicity of manufacture those supports 8 and 10 are ordinarily secured in the same manner by welding the outer sides to the end wall 2. In addition to these supports 8 and 10, a similar shaped support 12 is adjustably secured to the inner sliding section B adjacent to the overlapped end thereof.

The channel shaped supports are open at their forward and rearward ends and so do not interfere with free circulation of air. The medial adjustable support 12 is provided with terminal extensions 13 and 14. The extension 13 extends within and rests upon the inturned margins of the top portions at the front of the shield. The rearward extension 14 is downturned at its end as at 15 for engagement behind a cleat or guide strip 16 welded to the inside of the rear wall. This support 12 is slidingly adjustable upon the inturned front flanges and upon the guide strip 16, to enable it to be positioned at the central point when the telescopic sections are relatively adjusted.

These spacers or supports 8, 10 and 12 rest upon the top of the radiator 1 and hold the top of the hood or cowl in elevated relation to provide ample air space over the top of the radiators and beneath the top portions 4—4.

Secured to the inner sides of each of the end walls 2 is an offset spaced finger 17 projecting parallel with the end wall 2 but spaced inwardly therefrom. This finger 17 serves as a contact or stop which by its engagement with the end of the radiator limits the ap-

proach of the end wall, thereby insuring an ample space intermediate the end wall 2 and the end of the radiator for circulation of air. The spacer finger 17 is also utilized for the attachment of a clamp hook 18. The end 19 of the finger 17 is perforated to receive a standard threaded stove bolt 20. The perforation in the transverse portion of the finger 17 is sufficiently close to the rearwardly extending portion of the finger to prevent the rotation of the nut 21 carried by the bolt 20. By this means the nut is held against rotation while the bolt is being adjusted to tighten the clamp hook 18 carried thereby which has operative engagement with the end of the radiator to secure the hood or cowl in place.

It is obvious that if so desired the inclined deflector extension 7 may be omitted from the lower margins of the skirt portions 3 in which case the lower margin of the skirt 3 of the outer section A will be upturned to afford a guide channel enclosing the lower portion of the skirt portion 3 of the inner section B. While the hood or cowl has been shown with a comparatively short skirt or rear dependent portion 3 it will be understood that this portion may be extended to any desired depth. Likewise the end walls 2 may be formed of any desired curvature of design to give to the hood or cowl an ornamental appearance. In lieu of a flat top surface 4 as illustrated in Figs. 1 and 2, this top portion may be given an upward inclination or substantially ogee form or other ornamental shape.

From the above description it will be apparent that there is thus provided a construction of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, and arrrangement of parts, without departing from the principle involved or sacrificing any of its advanages.

While in order to comply with the statute the invention is described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific details shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described my invention, I claim:

1. In a radiator shield, two telescopically adjustable sections, each including top, back and end wall, a spacer carried by each section for engagement with the top of the radiator to support the top wall in elevated relation thereabove, the spacer of one section being separated from the top thereof to permit the top of the other section to pass therebetween upon contractive adjustment of the shield.

2. In a radiator shield, two telescopically adjustable sections, means for supporting the sections in elevated relation above the top of a radiator, such supporting means extending into overlapping relation with one of the sections when the shield is telescopically contracted.

3. In a radiator shield, two telescopically adjustable sections, each comprising top, back and end wall portions, the lower margin of the back wall of one section being reversely bent over and enclosing the lower margin of the back wall of the other section, an integral tongue upon one section and a stop member carried by the other section engaged by said tongue to limit the range of relative adjustment of said section in one direction.

4. In a radiator shield, two telescopically adjustable sections, and supports for engagement with the top of a radiator attached to the inner sides of the end walls and extending into overlapping relation with the top walls of the sections when the shield is telescopically contracted.

5. In a radiator shield, two telescopically adjustable sections, each including top, back and end wall portions, said sections being slidingly engaged one with the other at the forward margin of their top wall portions and also slidingly engaged one with the other at the lower margins of their back wall portions and interengaging stop means upon the respective sections for limiting the telescopic extension of the shield.

6. The combination with a radiator shield, of a plurality of supports located beneath the shield to rest upon a radiator and support the shield in elevated position thereabove, one of said supports being adjustable toward and from another support and relative to the shield.

7. A radiator shield having its front margin inturned and its rear wall dependently disposed, and an andjustable support located beneath said shield having an extension slidingly engaged with the inturned front margin of the shield and having a rearward extension slidingly engaged with said rear dependent portion.

8. A radiator shield having its front margin inturned, and a supporting member located beneath the shield and adjustably engaged with the inturned marginal portion of the shield for adjustment longitudinally relative to said shield.

9. A radiator shield having a dependent rear portion, a rolled forward edge, a plate extending from the front to the rear of the shield in spaced relation below the top of the shield, the forward end of the plate being slidingly engaged within the rolled forward edge of the shield, the rear end of the plate being down-turned, a guide strip secured to

the inner dependent rear portion of the shield having its top margin spaced from such dependent rear portion, said down-turned end of the plate being slidingly engaged between the guide strip and the dependent rear portion of the shield, and the side margins of said plate being upturned into supporting engagement with the underside of the top of the shield.

10. A radiator shield comprising two telescopically adjustable sections each including top, back and end walls and offset spacer fingers supported in spaced relation with the end walls for engagement with the ends of a radiator to limit the approach of the end walls thereto.

11. A radiator shield including top, back and end walls, and horizontally disposed substantially U shaped spacer members attached to the end walls for engagement with the ends of a radiator to limit the aproach of the shield thereto.

12. A radiator shield having top, back and end walls, including offset spacer fingers carried by the end walls for engagement with the ends of a radiator, clamp arms for engagement with the radiator, adjusting bolts for said clamp arms and nuts for said bolts held between said spacer fingers and the end walls of the shield to prevent turning.

13. The combination of a radiator shield, a spacer member carried by said shield to space the shield from a radiator, an adjustable clamp arm to engage the radiator, a clamp bolt connecting the clamp arm with the spacer member and a nut for said bolt held from turning by said spacer member while the bolt is adjusted to tighten the clamp arm into engagement with the radiator.

14. The combination of a radiator shield, a clamp arm engageable with a radiator, an adjusting bolt therefor, a U-shaped spaced member carried by the shield to space the shield from the radiator, and a nut for said adjusting bolt positioned between the arms of said spacer member to hold the nut from turning while adjusting the bolt to tighten the clamp arm.

In testimony whereof, I have hereunto set my hand this 13th day of June, A. D. 1927.

WILLIAM S. ELTERS.