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2,539,293

DAMPER FOR RADIATORS

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Fig. 1.

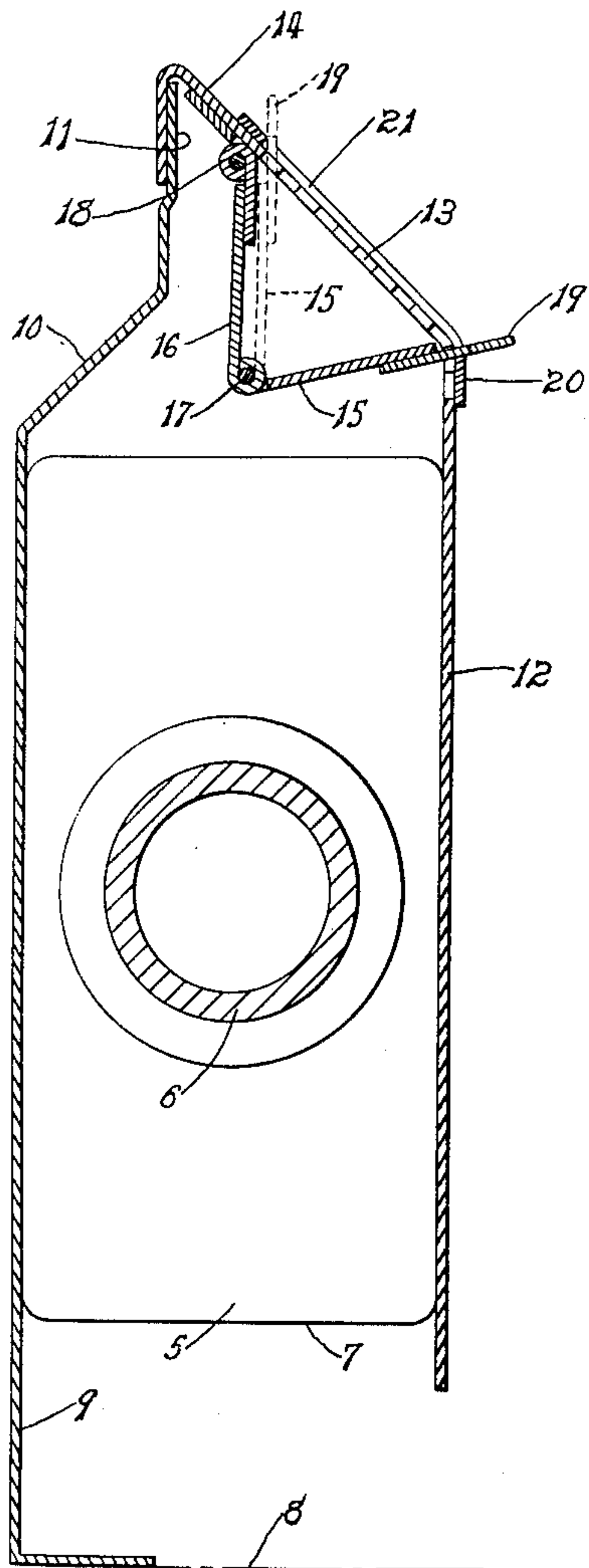


Fig. 2.

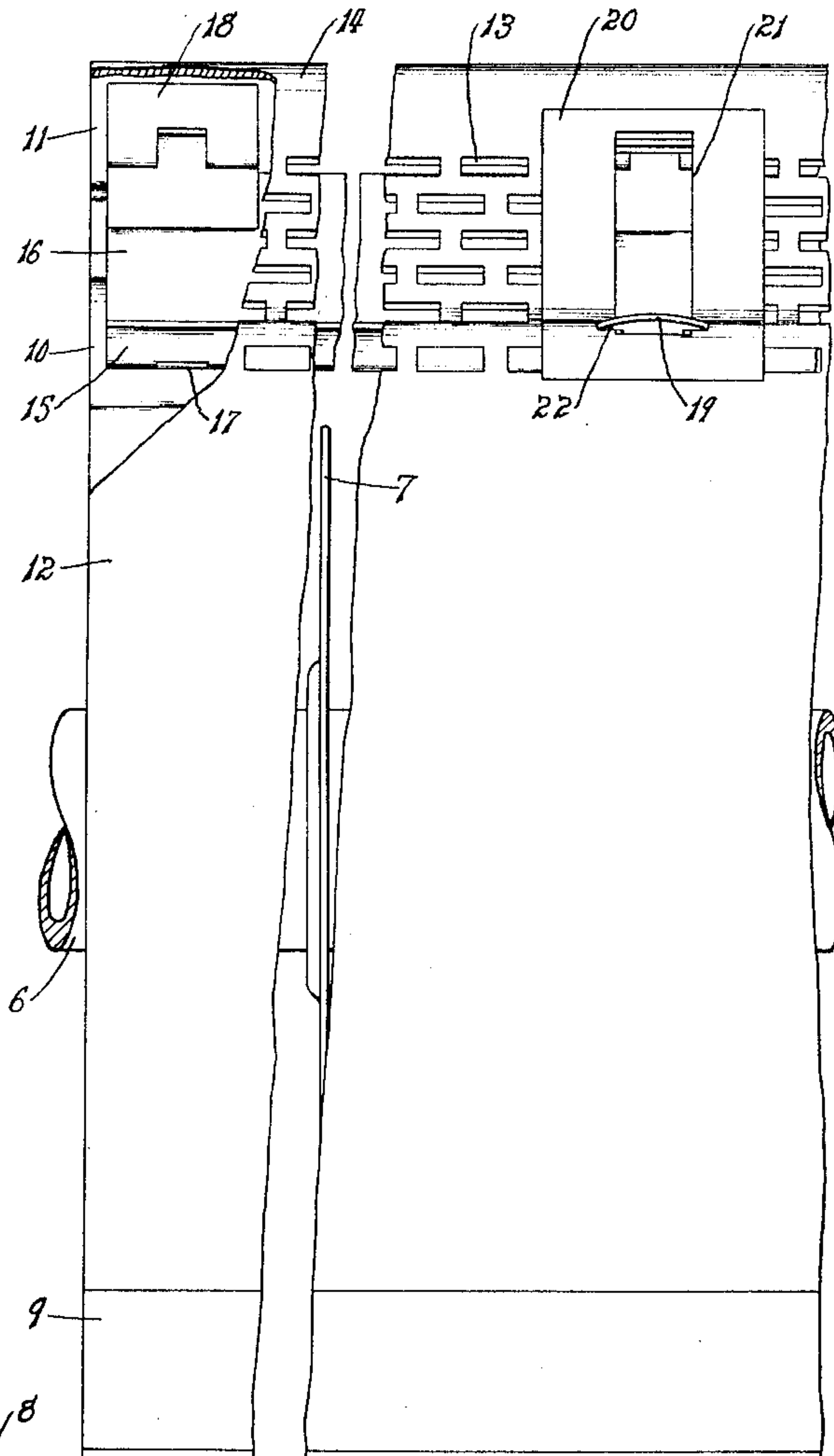
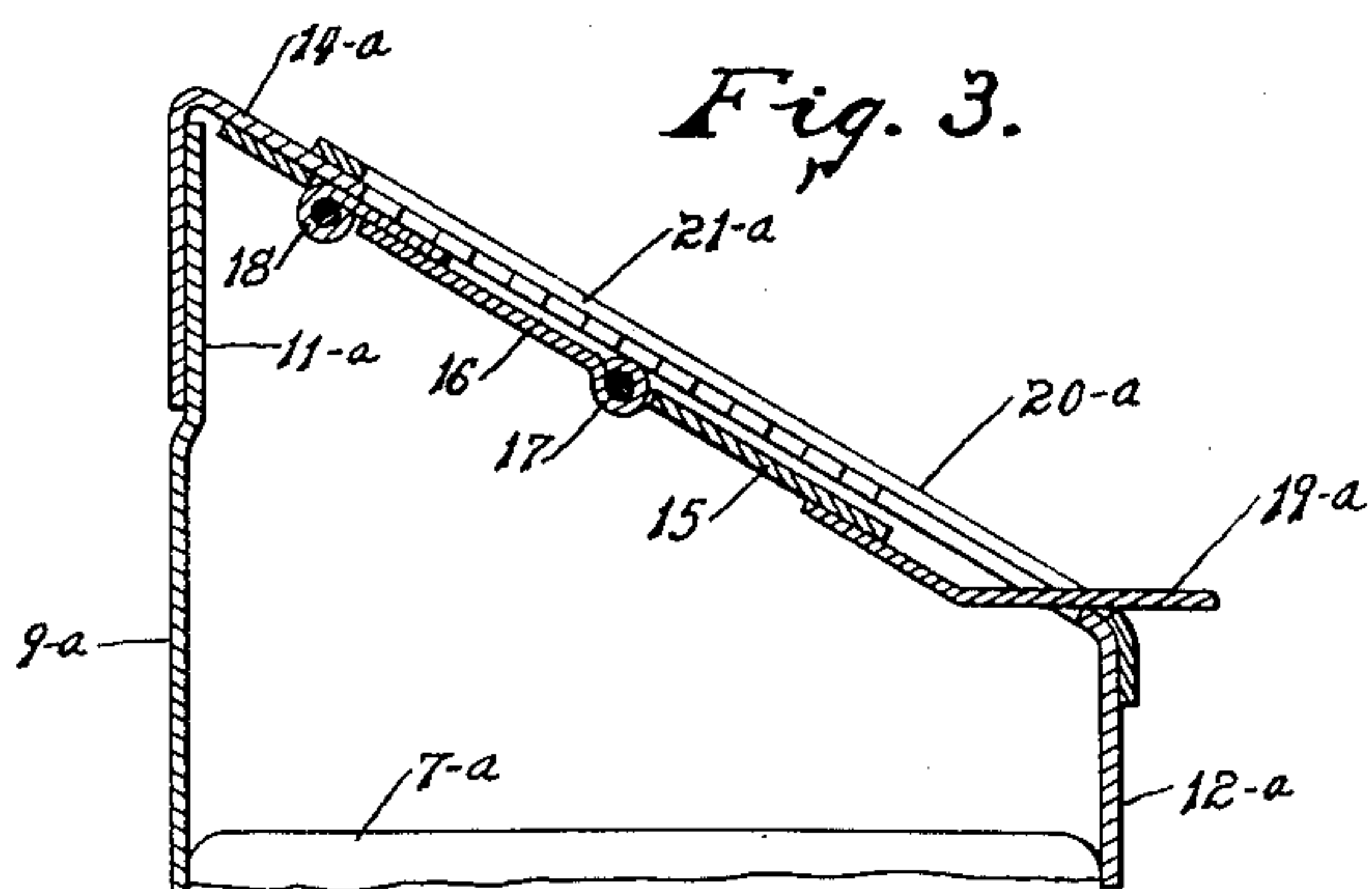


Fig. 3.



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DAMPER FOR RADIATORS

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3 Claims. (Cl. 98—40)

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This invention relates to a damper for radiators and more particularly to a damper which is intended primarily for covers of baseboard radiators, such as include a finned pipe having a cover mounted over and against the side of the radiator to provide for circulation of air under said cover, through the spaces between the fins of the radiator, and through openings in the top of said cover.

An object of this invention is to provide a damper which may be installed in the covers of such radiators to open and close the openings in the top thereof and thereby control the circulation of air through the radiator.

A further object of this invention is to provide a damper which may be used in such covers for radiators of different sizes.

A still further object of the invention is to provide a damper which may be constructed of a certain size and which may be applied to such radiator covers having tops of different widths, so that the said dampers may be attached to covers of radiators that are already installed without requiring special fittings and the like.

Further objects and advantages of this invention will be more clearly understood from the following description and from the accompanying drawings in which:

Fig. 1 is an end view, in vertical section, of a radiator embodying my invention.

Fig. 2 is an elevational front view of a portion of said radiator partly broken away to show the construction thereof.

Fig. 3 is a fragmental end view of the top portion of a radiator cover of greater width than that illustrated in Fig. 1.

As shown in the drawings, the numeral 5 denotes a radiator of conventional form and comprising a suitable tubular conductor 6 having a plurality of fins 7 mounted thereon and in heat conducting relation therewith, so as to transfer heat from a heating medium circulating through the conductor 6.

Such radiators are usually mounted upon the baseboards along the walls of rooms and spaced above the floor thereof, indicated at 8. In the embodiment illustrated, a back plate 9 is provided between the radiator 5 and the baseboard. This plate extends along the back of the radiator and has a forwardly projecting portion 10 with an upwardly extending flange 11 upon which is supported a front plate 12 that extends downwardly and in front of the radiator 5 to a position above the floor 8, so as to permit air to

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enter under the edge of said front plate 12, into the interior of the casing, and pass upwardly through the fins of the radiator and through suitable openings 13 in the top portion 14 of said front plate.

The present invention is particularly directed to the provision of a damper for opening and closing said openings to thereby control the circulation of air through the radiator. The said damper is preferably in the form illustrated wherein it comprises a pair of elongated strips, or plates, 15—16 which are hinged together at 17. The plate 16 is secured to the top portion 14 of the casing by means of hinge members 18 which are secured against the inner surface of said top portion in any suitable manner and spaced as may be desired in order to hingedly support the damper. At a suitable position along the upper portion 14, the said top portion is slotted to receive a handle 19 which is secured to the plate 15 and extends through the slot to permit manipulation of the damper to closed or opened position. An escutcheon plate 20 is preferably provided over the top of the portion 14 and has a slot 21 therein, conforming with the slot in the top portion, through which the handle 19 extends. The said handle has oppositely extending ears 22 which rest upon the marginal portions of said plate 20, at the opposite sides of the slot 21, to support the damper in adjusted position.

As shown in Fig. 1 the said damper is illustrated in closed position in full lines and in open position in dotted lines. When the damper is in open position and it is desired to move it to closed position, the handle 19 is grasped with the hand and moved downwardly in the slot 21 to any desired position up to its closed position. The weight of the damper applied upon the ears 22 to contact with the top of the plate 20 will retain the handle in any adjusted position by gravity. If desired, however, suitable means may be provided for frictionally retaining the handle in engagement with the plate so as to prevent movement of the damper from a position to which it is adjusted.

As illustrated in Fig. 3, it will be seen that the same damper that is used in a narrower radiator cover, as illustrated in Fig. 1 may also be used in a wider cover without special parts other than a longer handle 19—a and a longer plate 20—a. When the damper is applied to a narrower cover, it will close the air openings 13 when it is in a position illustrated in Fig. 1, even though the said damper is not positioned close to the surface

of the top portion 14. When the damper is used in a wider cover, as illustrated in Fig. 3, it will close the openings therein when the damper is nearer to the surface of the portion 14—*a*. It will be understood, therefore, that my improved damper may be constructed of a standard size and installed on radiators already in use regardless of the width of the covers of said radiator. In other words, my improved damper is self-adaptable to radiator covers of different sizes and my invention thereby provides a valuable advantage since it permits the installation of dampers on radiators that are already in use without requiring new covers or casings for such radiators, or the return of their casings to the factories for installation of the dampers.

I claim:

1. A radiator of the character described comprising a heat exchange device having a casing mounted thereover, the said casing comprising a cover member having an upper portion with openings therein to permit circulation of air therethrough and a front wall spaced from the floor, a damper including a pair of elongated plates hinged together, one of said plates being also hinged in fixed position to the under side of said top portion adjacent to said openings, the other of said plates being movable to open or closed position relatively to said openings and having a handle operable from the exterior of said upper portion, through a slot therein, for operating the said damper, and abutments on said handle being urged into frictional engagement with the marginal edge portions of said slot by the weight of the dampers for retaining the dampers in adjusted position relatively to said openings.

2. For a baseboard radiator comprising a heat exchange device including a tubular conductor having a plurality of spaced fins thereon, a casing supported over said heat exchange device and including a cover having an upper portion with openings therein to permit circulation of air through said device and a front wall having a bottom opening, a damper including a pair of elongated plates hinged together, the first of said plates being hingedly mounted to the under side of said cover along and adjacent said openings and gravitally depending from said under side, the other of said plates being hinged to the free edge portion of the first plate and movably con-

nected to said upper portion with the free edge thereof adjacent the under side of said portion, a handle on said other plate projecting through a slot in said upper portion, and lateral extensions on said handle to engage the marginal portions of said slot to permit operation of said damper and retain it in adjusted open or closed positions relatively to said openings.

3. For a radiator of the character described comprising a heat exchange unit including a tubular conductor having a plurality of spaced fins thereon, a casing for said unit including a cover member having an angular upper portion and a front wall, the said upper portion having groups of openings therethrough and the front wall being spaced from the floor to permit circulation of air through said casing, and a damper for opening and closing said openings, said damper including spaced hinged members secured to the under side of said upper portion along said openings, a first elongated plate supported by said hinged members and depending downwardly therefrom, a second elongated plate secured to the free edge portion of the first elongated plate, an escutcheon plate mounted upon said upper portion, a handle extending from the free edge of said second elongated plate through aligned slots running transversely through said upper portion and through said escutcheon plate, and lateral projections on said handle resting on the marginal portions of said escutcheon plate at the opposite sides of the slot therein to movably support the free edge of said second elongated damper plate adjacent to the under side of the said upper portion.

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