

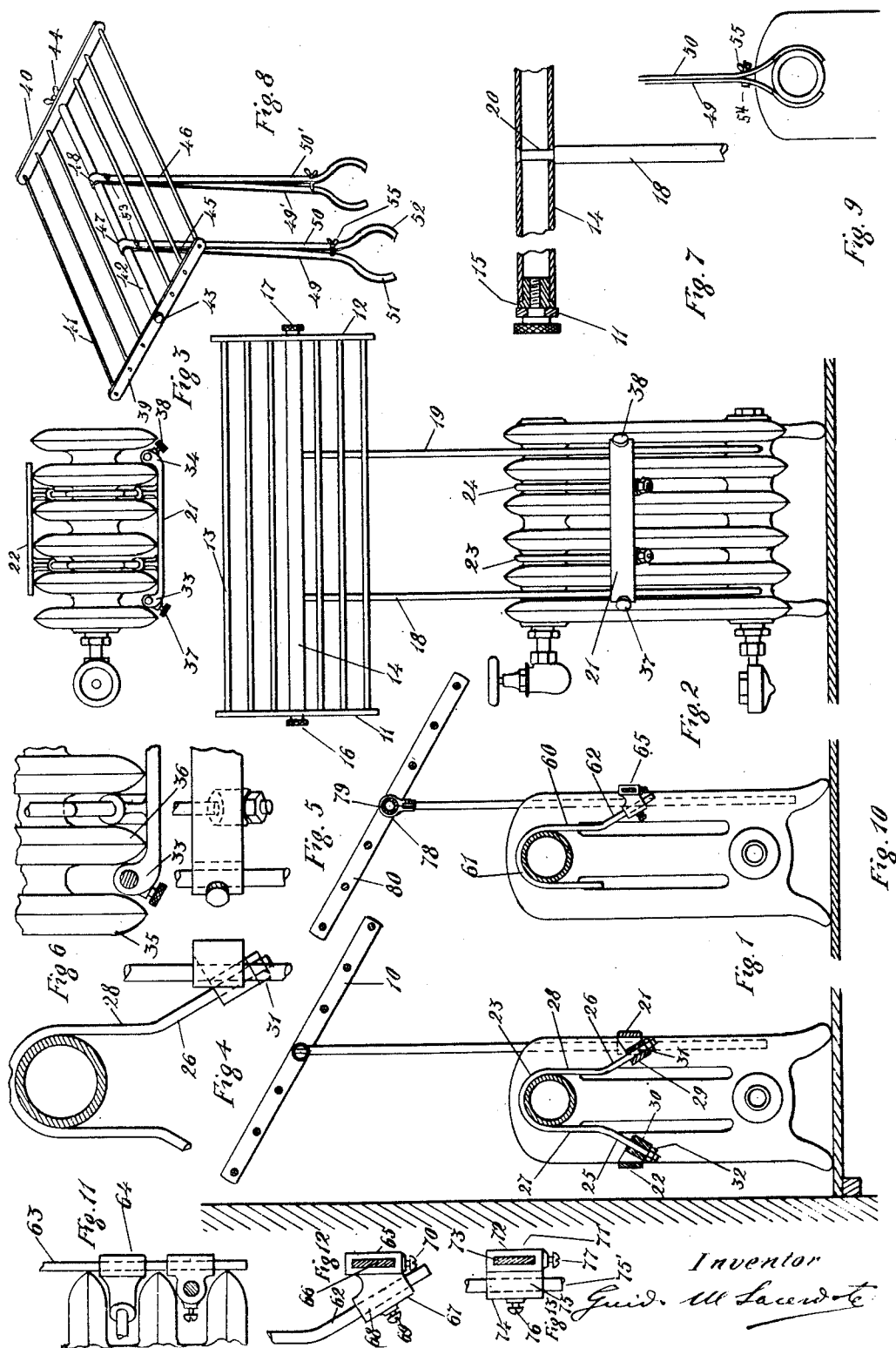
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RADIATOR ATTACHMENT

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## RADIATOR ATTACHMENT

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This invention relates to radiator attachments and more particularly refers to a rack adapted to be removably mounted upon a steam or hot water radiator in order to utilize the heat issuing therefrom to keep the towels hanging from the rack in a dry and warm condition.

sively used; but not necessarily of the type adapted to be mounted upon a radiator.

The chief advantage of my invention is to provide a new type of bath room fixture which may be of a removable or permanent character, solving a problem created by the peculiar conditions existing in most bath rooms.

These conditions are due to the fact that bath rooms are usually small, so that there is not much room provided for placing various fixtures in position. The equipment of an ordinary bath room is generally especially defective in this, that the room for hanging towels is limited to a capacity of two or three towels.

At the same time, the available room is rather scarce and therefore, it is difficult or impossible to add towel hanging facilities.

A rack of sufficient capacity, placed above a radiator represents a very good way out of this difficulty, because it is thereby possible to provide ample room for hanging towels right in a place where they will quickly dry and keep warm; at the same time it is thus possible to utilize space which would otherwise be lost and it is also possible to utilize the radiator itself as a stand or support for the rack.

This is an important consideration because it is usually difficult or impossible to secure anything to the walls, and on account of the fact that when it is at all possible to attach things to walls by means of nails or screws, the walls themselves become thus defaced and the neatness of the arrangement is spoiled.

I have therefore devised a rack which may be quickly placed and securely held on a radiator and which provides the advantages hereinbefore mentioned. The device is sufficiently solid structurally, to answer all the requirements of a frequent and even heavy use; at the same time the device is also designed to fit existing conditions as well as desired requirements, in this, that while the aim is to provide sufficient rack capacity, the means for supporting the same must be such as to be attachable onto a radiator having a relatively small number of sections without

The main object of the present invention is to provide a rack adapted to be used as a towel or drying rack adapted to provide ample room for hanging towels or clothes, above an ordinary radiator for the purpose of drying or warming the same, even if the radiator itself is composed of a relatively small number of sections.

Another object is to provide in connection with an appliance such as a towel rack or a shelf or cabinet or the like, improved means for removably mounting the same upon an ordinary water or steam radiator, said means being adjustable for radiators of various widths and being adapted to securely hold the device in position at all times.

A further object is to provide a device of the class specified of a relatively simple and inexpensive construction adapted to provide a substantial addition to the equipment of a both room or kitchen, utilizing a radiator as a support therefor.

Other objects and advantages of the present invention will more fully appear as the description proceeds and will be set forth and claimed in the appended claims.

My invention has as its principal object to provide a useful and practical bath room fixture, and a removable rack which may be mounted on any radiator and which can be used for drying clothes.

In a small apartment it is often desirable to do some minor washing, but it is frequently difficult or inconvenient to provide proper drying space. A drying rack having a relatively large capacity, yet utilizing a space which would otherwise be lost, directly above a source of heat which will help in drying, is therefore a useful fixture lending itself to a number of applications.

The same holds true when the device is used as an item of kitchen equipment, since drying racks of various types are now exten-

prejudice to the stability and strength of the device itself.

Radiators available in bath rooms are generally very small because the rooms themselves are small, and yet as stated, if its full advantages have to be realized, the rack must have a rather large capacity; therefore, I provide a construction comprising a substantial stand, and a rack adapted to be mounted thereon, extending laterally of said stand; in this manner, I obtain a structure which is relatively light, and yet strong, being rigidly supported and held in position by the improved attaching means which will be later described.

My invention is illustrated in the drawings in which—

Fig. 1 is a side view in elevation partly sectioned of the rack applied to a radiator;

Fig. 2 is a front view in elevation of the same;

Fig. 3 is a plan view of a radiator showing the fastening means in position;

Fig. 4 is a fragmentary detail side view in elevation of the fastening means in an enlarged scale;

Fig. 5 is a fragmentary front view in elevation of the same;

Fig. 6 is a fragmentary plan view of the same;

Fig. 7 is a fragmentary detail front view in elevation illustrating the preferred manner of mounting the rack upon the cross member and the manner of securing the uprights onto said member;

Fig. 8 is a view in perspective of an alternative embodiment of my invention;

Fig. 9 is a fragmentary side view in elevation of the supporting means of said device showing the manner of clamping the same in position;

Fig. 10 is a side view in elevation partly sectioned of a drying rack mounted on a radiator by means of fastening means of a somewhat simpler design than those illustrated in Figs. 1 to 7;

Fig. 11 is a fragmentary plan view illustrating the type of fastening means shown in Fig. 10;

Fig. 12 is a detail sectional view in elevation, illustrating means for securing the hook members onto the front bar; and

Fig. 13 is a detail side sectional view in elevation illustrating the means for adjustably securing the uprights onto the front bar.

One of the aims of my invention is to provide a device where the requirements of usefulness and appearance are not prejudiced by one another; therefore, while the rack proper is sufficiently long to provide the necessary capacity, the stand is narrow and does not project laterally of the radiator, so that the device presents a neat and trim appearance.

In order to obtain this result therefore, the device comprises an upper longitudinal mem-

ber integral with or upon which the rack proper may be mounted, and supporting means therefor, attached to the center portion of said longitudinal member. In order to provide the necessary strength, yet preserving a slim and substantial appearance, I prefer to provide two spaced uprights depending from or attached to the central portion of the longitudinal member, the distance between said uprights being less than the length of an ordinary small radiator.

In addition to these elements, I also provide simple and efficient means for holding the stand thus formed in position, said means being preferably such as to allow of the stand and the rack supported thereby to be adjusted in a vertical sense.

Referring to the drawings, Figs. 1 to 7, 10 designates a rack comprising two side bars 11, 12, connected by a plurality of rods 13. 14 designates the longitudinal rack supporting member which is preferably tubular in shape and plugged at the ends by solid plugs such as 15. The total length of the longitudinal member is equal to the distance between the inner surfaces of bars 11, 12, so that said bars may be secured upon said longitudinal member by means of end screw studs 16, 17.

It is obvious that by means of this arrangement, the rack may be set in a horizontal position, or else at an angle as shown if desired.

The stand of which longitudinal member 14 is a part, also comprises two uprights 18, 19, which are simply two round rods turned down at their upper ends to form a stud or rivet portion 20, which may be inserted through longitudinal member 14 and riveted in position as clearly shown in Fig. 7.

This method of construction of the rack and stand is advocated because all the hanging elements thus obtained are entirely smooth and free of projecting bolts or screws or other parts; so that the same may be conveniently made of a non-rusting material such as aluminum, or else it may be made of a cheaper and stronger material such as steel and electro galvanized, or otherwise rust proofed without sacrificing their smooth finish.

This feature is quite important in view of the fact that often expensive linens and silks are hung up to dry which might be spoiled if there were any possibility of parts apt to rust or to decay, coming in contact therewith.

The means for supporting the stand in position, while simple in design should be positive in their action, preventing tilting of the stand frontward or rearward. At the same time the fastening means should be adjustable for all widths of radiators and should be readily removable from and insertable in position.

For convenience of packing and shipping it is also desirable that the various parts be easily demountable so that shipment may

be made in a comparatively small container. This feature is also convenient for the user when the device is not used as a permanent fixture but only occasionally in order to dry clothes over a radiator.

The preferred construction of supporting means comprises a front bar 21 and a rear bar 22 connected by two inverted loop members 23, 24, adapted to be inserted over the joint between two adjoining radiator sections.

For radiators of a given width, the connection between the front and rear portion and the central loop members may be of a permanent and fixed nature, constituting a structure which is securely supported in position, but is prevented from tilting either way by bars 21, 22, abutting against the front and rear edges of the radiator sections.

On the other hand, if the device is intended for use on radiators of various widths, I prefer to have the outer bars 25, 26, of legs 27, 28 of the loop members divergent and inserted through lugs 29, 30, respectively, integral with bars 21, 22.

The outer ends of said outer leg portions being threaded, it is thus possible by means of nuts 31, 32, to force bars 21, 22, more or less inwardly, always maintaining them vertically parallel to one another; so that the closer the bars are to the upper loop portion of the loop members and the narrower the space intervening between the two bars will be.

In this manner, it is possible to provide a positive, easily insertable and removable support, which can be used upon all radiators of ordinary widths.

The front bar 21, is provided with two enlarged portions 33, 34, preferably at the ends, said enlarged portions being preferably projecting inwardly between two adjoining radiator sections 35, 36, as shown in Figs. 3 and 6. Said enlarged portions are each provided with a vertical opening, adapted to receive uprights 18, 19, respectively, so that the stand may thus be placed in position and retained by means of set screws 37, 38. The stand can thus be adjusted vertically to suit different conditions, this being especially useful in order to counterbalance various heights of radiators used in ordinary practice.

A rack thus supported may have a tendency to tilt to the front or to the rear according to how the weight of the towels or clothes is distributed, upon portion 13; but the construction of the supporting means described, absolutely prevents any tilting movement of the rack, holding the same rigidly in position.

It will be observed that in the device illustrated, the two supporting members 23, 24 are separated by a distance equal to that between two radiator sections separated by a central section; in other words, their distance is twice the pitch of the radiator, if by pitch is meant the distance between two adjoining

sections; therefore, the device may even be used in connection with a radiator having only four sections. Yet, the supporting action thus obtained is fully effective in both directions because front to rear displacements are prevented as explained by bars 21, 22 and lateral displacements or tiltings are prevented by lugs 29, 30, which project between adjoining radiator sections and which may be made of a suitable size accordingly.

It will also be observed that the distances between supporting members 23, 24, and between uprights 18, 19, are fixed, that is, they are functions of the distance between adjoining sections of the radiator.

It is obvious that if lateral adjustment is required, it is possible to make bars 21, 22, of an adjustable construction, or else to make parts 29, 30, 33, 34, adjustable in relation to said bars; it is also possible to accordingly make uprights 18, 19, adjustable lengthwise of member 14 by adopting a manner of connection different from that shown.

Most radiators used in practice, however, have a uniform pitch of  $2\frac{1}{2}$ ", therefore a laterally non-adjustable construction of the supporting means will do in most cases.

In Figs. 8 and 9, I illustrate a rack of a simpler construction in which the features of a relatively large rack capacity together with supporting means adapted for mounting a device upon a small or large radiator at will, are retained.

In the same the rack proper is composed as before of two side bars 39, 40, connected by a number of longitudinal rods 41. The rack is mounted upon a longitudinal tubular supporting member 42 by means of a through bolt 43, which is secured in position by means of a wing nut 44. In this manner the rack may be secured in position at any desired angle.

The supporting means proper consist of two clamping members 45, 46, formed of a metal strip bent in the middle to form eye portions 47, 48 adapted to embrace tubular member 42. Each member comprises therefore two legs 49, 50, extending from said eye portion, the outer end of said legs being curved outwardly to form two jaws 51, 52, adapted to embrace the connection between adjoining sections of an ordinary radiator.

At the inner end of each supporting member its two legs are connected together by a screw 53, the operation of said screw permitting to securely clamp said supporting member onto 42 or else to loosen it therefrom for adjusting purposes.

At the lower end, legs 49, 50 of each supporting member which naturally tend to spread apart due to the springiness of the material employed are connected by means of a stud bolt 54 attached to one of the legs and

projecting through the other one, provided with a wing nut 55.

The device may be inserted in position first by adjusting the distance between the two supporting members then by inserting said supporting members over two junctions between adjoining sections of the radiator at different points, and then by clamping the same in position by means of wing nuts 55, as shown in Fig. 9.

This construction is quite practical for racks intended for temporary use and is somewhat less expensive than the construction previously described; but for racks intended for permanent use, such as would be the case when used as a bath room fixture, for instance, I prefer to use the construction previously described, due to its greater rigidity and strength.

In Figs. 10 to 13, I illustrate a somewhat simpler and more flexible construction of means for mounting a rack in position. Like in the case of Figs. 1 to 6, the same comprises two loop members such as 60 formed by an inverted U portion 61, adapted to be inserted over the joint between the two adjoining radiator sections and a portion 62 integral with and outwardly inclined from the front rack of the U portion. 63 designates a front bar abutting against the front edges of the radiator sections, and 64 designates a fitting, formed with a front portion 65 provided with a longitudinal slot 66 through which bar 63 may be inserted, and an inwardly projecting lug 67 provided with an opening 68 inclined so as to be insertable over inclined part 62 of the loop members, as clearly shown in Figs. 10 and 12.

This fitting may be adjusted along parts 62 and may be fixed in position by means of a set screw 69 so as to regulate the distance of bar 66 from the central line of the radiator. Furthermore, the fittings may be adjusted along bar 66 by means of set screws 70 so that the center to center distance between the two loop members can be adjusted according to the type of radiator on which the device is to be used.

In a similar manner, fittings such as 71 are employed for connecting the front bar to the uprights. Said fittings comprise a front portion 72 similar to front portion 65 of fitting 64, being provided with a longitudinal passage 73 through which the front bar 63 may be inserted. Said fitting is furthermore provided with an inwardly projecting vertical lug 74 provided with a vertical opening 75 which one of the uprights 75' of the rack may be inserted. The uprights may be adjustably fixed in position by means of set screws 76, and the front portion 72 may be adjusted along front bar 63 and retained in position by means of set screws 77.

This structure permits therefore of adjusting the distance between loop members as well

as the distance between the uprights so as to fit the device to any radiator. The upper connection of the uprights to the central supporting bar of the rack may accordingly also be made adjustable in any suitable manner, if desired, for instance, by providing the upper portion of the uprights with a fitting or clamp such as shown at 78 adapted to be adjustably clamped onto central supporting bar 79 of the rack 80.

From the foregoing it will be seen that I provide an improved construction of rack adapted to be mounted on an ordinary radiator answering the two main requirements, namely, (1) sufficient rack capacity and (2) possibility of mounting the device on small radiators without sacrificing either its capacity or its rigidity, and strength.

If desired, for the sake of simplicity, the rack may be permanently connected to its stand, instead of being pivotally adjustable thereon. In this case, the rack being preferably set to permanently remain in a horizontal position.

The specific means for mounting the device upon a radiator shown in Figs. 1 to 6 and 10 to 13, constitute also per se, one of the novel features of the present invention which may be used in connection with devices or appliances of different nature; therefore, its use is not necessarily limited to racks of the character described, but may also be extended to shelves, medicine cabinets, and to other appliances for which the use of a radiator as a stand may be convenient or desirable.

The construction of the device may be modified in other ways without departing from the inventive idea and therefore, I reserve myself the right to carry my invention into practice in all those ways and manners which may enter fairly into the scope of the appended claims.

I claim:

1. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front transversal member associated therewith, abutting against the front end of said sections, adapted to be connected to said device supporting means and to maintain the same in the proper position.

2. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended

from said neck members, and a front and a rear transversal members associated therewith, abutting against the front and rear ends of said sections respectively, one of said transversal members being adapted to be connected to said device supporting means and to maintain the same in the proper position.

3. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, abutting against the front and rear ends respectively of said sections, and means for connecting said device supporting means to said mounting means.

4. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith adjustable to and from each other, adapted to abut against the front and rear ends respectively of said sections, and means for connecting said device supporting means to said mounting means.

5. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith adjustable to and from each other adapted to abut against the front and rear ends respectively of said sections, one of said transversal members being adapted to be connected to said device supporting means and to maintain the same in the proper position.

6. A device of the class described, comprising a rack, supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, abutting against the front and rear ends respectively of said sections, and means for

connecting said device supporting means to said front transversal member.

7. A device of the class described, comprising a rack, supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, abutting against the front and rear ends respectively of said sections, and means for adjustably connecting said device supporting means to said front transversal member.

8. A device of the class described, comprising a rack, supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, adjustable to and from each other, adapted to abut against the front and rear ends respectively of said sections, and means for connecting said device supporting means to said front transversal member.

9. A device of the class described, comprising a rack, supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, adjustable to and from each other, adapted to abut against the front and rear ends respectively of said sections, and means for adjustably connecting said device supporting means to said front transversal member.

10. In a device of the class described, a rack having two side members, a central cross member extending between said two side members, supporting means depending from and connected to said cross member at points intermediate of said side members, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, adjustable to and from each other adapted to abut against the front and rear ends respectively of said sections, and means for connecting said device supporting means to said front transversal member.

11. In a device of the class described, a rack having two side members, a central cross member extending between said two side members, supporting means depending from  
5 and connected to said cross member at points intermediate of said side members, said cross member and supporting means constituting the full support for said rack, means for detachably mounting the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting  
10 neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, and a front and a rear transversal members associated therewith, adjustable to and from each other, adapted to abut against the front and rear ends respectively of said sections, and means for adjustably connecting said device  
15 supporting means to said front transversal member.

12. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting  
25 the device upon an ordinary heating radiator consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from  
30 said neck members, a front transversal member associated therewith, adjustable to and from and adapted to abut against the front end of said sections, and means for mounting said supporting means onto said front transversal member.  
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13. In a device of the character described, comprising supporting means depending therefrom, means for detachably mounting the device upon an ordinary heating radiator  
40 consisting of a plurality of spaced vertical sections and connecting neck members therebetween, comprising inverted loop supporting members adapted to be suspended from said neck members, a front transversal member associated therewith, adjustable to and  
45 from and adapted to abut against the front end of said sections, and means for mounting said supporting means onto said front transversal member, said means permitting vertical adjustment of said supporting means  
50 in relation to said front transversal member.

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