Dec. 21, 1948. R. E. PERKINS 2,456,987

FLATIRON HOLDER BRACKET

Filed March 17, 1947 2 Sheets-Sheet 1

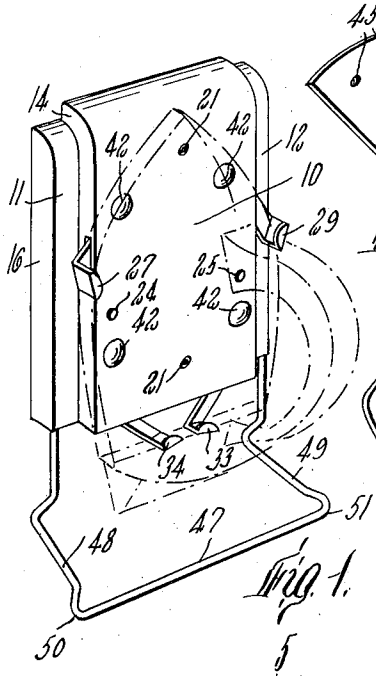


Fig. 1.



Fig. 2.

Fig. 3.

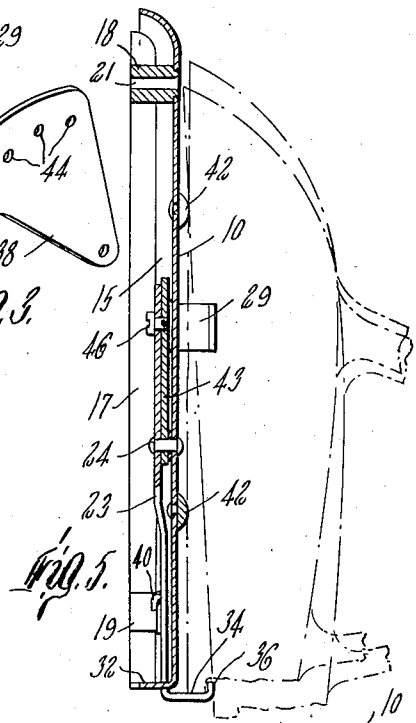


Fig. 5.

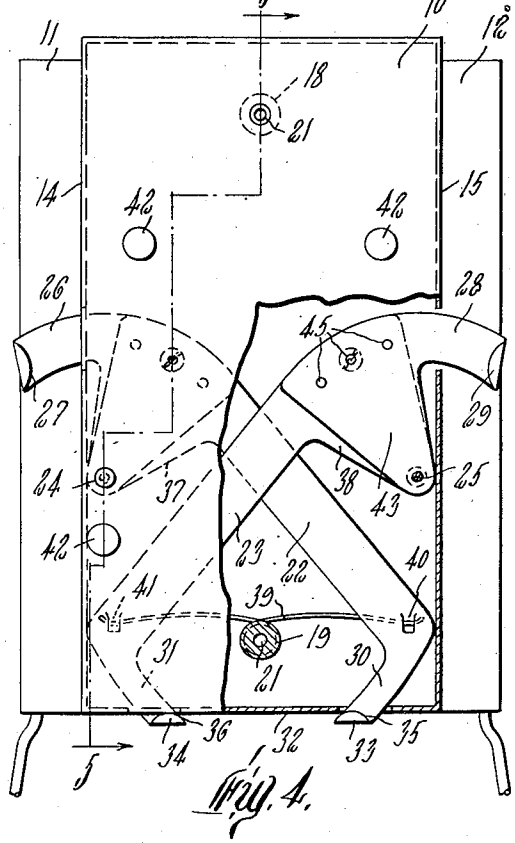


Fig. 4.

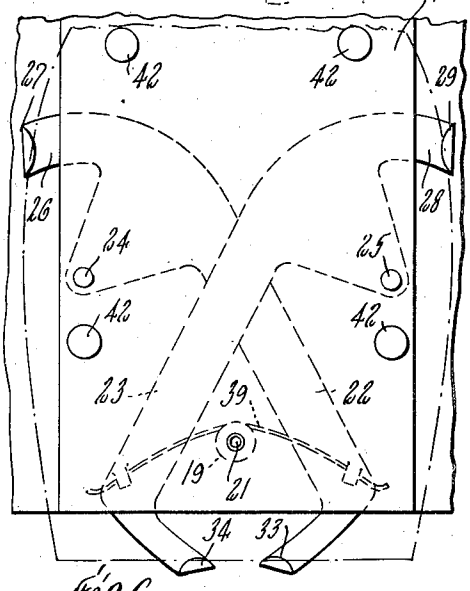


Fig. 6.

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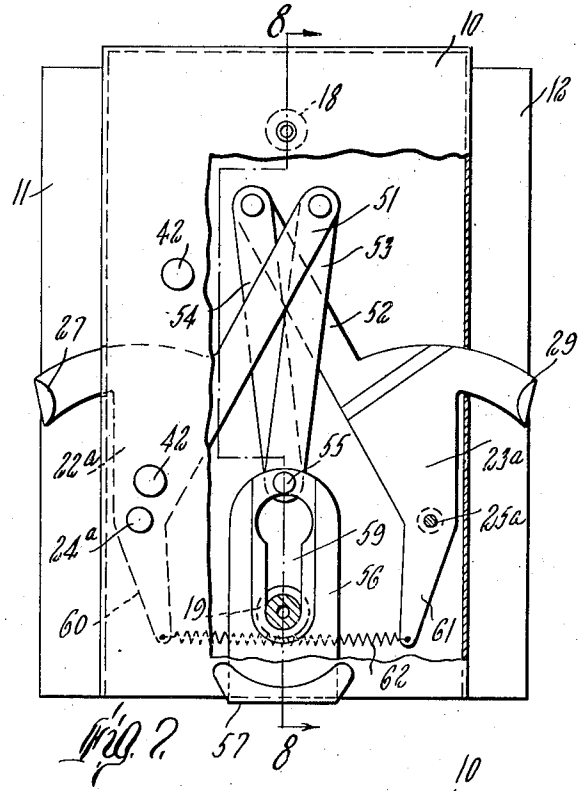


Fig. 7.

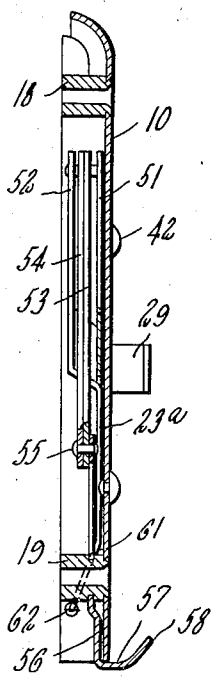


Fig. 8.

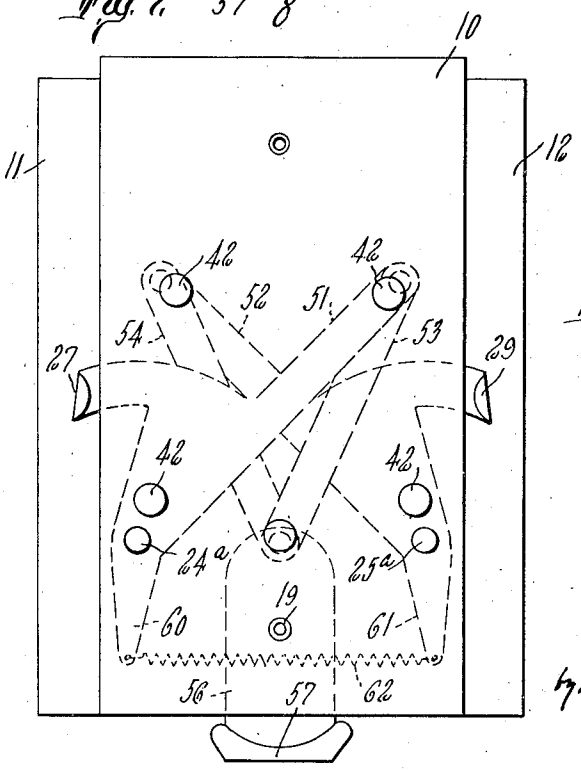


Fig. 9.

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FLATIRON HOLDER BRACKET

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10 Claims. (Cl. 248—117.1)

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The present invention is a holder adapted to be mounted on a wall and having means for holding a flatiron securely, out of the way but in an easily removable manner, when not in use. One of its objects is to afford means capable of receiving and holding with equal firmness any one of a number of standard flatirons of different designs and dimensions. Another object is to afford means for this purpose which do not include parts projecting to any considerable distance from the wall on which the holder may be mounted. A further object is to provide as the holding means cooperating supporting lugs and side clamps which may be automatically operated to grip an iron when placed against the holder in a prescribed manner, and automatically release the iron when it is lifted by the user. A further object is to combine with the holder a device in the nature of a cleat around which the conducting cable of an electric flatiron can be wrapped when the flatiron is secured to the holder. Other objects related to the foregoing appear from the following detailed description of an illustrative embodiment of the invention.

The invention comprises a base having means for attachment to a wall or other upright of which the surface is sufficiently wide, movable clamps operable to engage opposite sides of the sole portion of an electric or other flatiron, supporting members to underlie and support the heel portion of the iron and cooperatively associated with the clamps to bring the latter into gripping condition when supporting the weight of the iron, and other related or accessory features, as hereinafter described, and all substantial equivalents of the particulars so described.

In the drawings which accompany this specification—

Fig. 1 is a perspective view of a flatiron holder embodying the invention;

Figs. 2 and 3 are perspective views of two of the component parts of the holder;

Fig. 4 is a front elevation of the holder broken away to show interior operating parts;

Fig. 5 is a vertical sectional view taken on line 5—5 of Fig. 4;

Fig. 6 is a fragmentary front elevation showing the movable parts in position for supporting and gripping a flatiron; also illustrating a minor modification in construction of the movable parts;

Fig. 7 is a view similar to Fig. 4 showing a similar holder with an alternative arrangement of clamps and means for operating them;

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Fig. 8 is a vertical section taken on line 8—8 of Fig. 7;

Fig. 9 is a front elevation of the modified holder showing the supporting and clamping elements in position for securing a flatiron.

Like reference characters designate the same parts wherever they occur in all the figures.

In these drawings the holder or bracket is represented as being in the position which it occupies when applied for use against a wall or post or other upright structure, and the words "up" and "down" and other words designating relationship and motion relative to the vertical, are used in the following specification with respect to the position thus indicated.

The base or body portion of the holder is designated as a whole by the reference character 10. In this illustrative embodiment it is made with a shallow box formation, preferably of pressed sheet metal thick enough to afford adequate strength and stiffness. Preferably also it is shaped with a flat surface of extended area in its mid portion and lateral wings 11 and 12, the forward faces of which are set back from the central portion so as to provide forwardly extending narrow walls 14 and 15 at either side thereof. The rear of this box-like base structure is open, and the rear edges of parts of its lateral walls lie in a plane which is preferably parallel to the forward surface, although it may be inclined thereto. Some parts of the lateral walls, in this case the walls at top and bottom of the wide mid portion of the base, are cut back from this plane in order to afford ventilation when the base is secured to a flat wall. Tubes or thimbles 18 and 19 are secured to the front wall of the base near the upper and lower ends of the vertical median line thereof, extending rearward to the above mentioned plane, and provide passages 20 and 21 through which nails, screws or other fastenings may be passed to secure the base on a wall.

Levers 22 and 23 are connected to the front wall of the base at the rear side thereof by pivots 24 and 25, respectively. An arm 26 extends from lever 22 through a slot in the lateral wall 14 and carries a clamp 27 on its extremity projecting forwardly beyond the plane of the front wall of the base. A similar arm 28 extends from the lever 23 through the lateral wall 15 and carries on its extremity a clamp 28 symmetrically disposed opposite to the clamp 27. An inclined foot portion 30 of lever 22, and an oppositely inclined foot portion 31 of lever 23 extend through slots in the bottom wall 32 of the base

structure and carry on their ends forwardly projecting lugs 33 and 34, respectively, the extremities of which are bent up at 35 and 36.

These levers are of bell crank character, lever 22 having an intermediate arm 37 extending upwardly and inwardly from the pivot 24 (which is close to the lateral wall 14), and lever 23 having a similar arm 38 extending upwardly and inwardly from the pivot 25 (which is close to the lateral wall 15). The arms 26 and 28 are curved about the pivots 24 and 25, respectively, so that, when the levers are turned about their pivots, the clamps 27 and 29 move in paths which are approximately horizontal in the restricted range in which their movement is possible.

All electric flatirons have a sole plate which extends at the margins somewhat beyond the body of the iron, and in most cases the sides of the sole plate are beveled. The clamps 27, 29 and lugs 33, 34 extend forwardly from the central surface of the holder far enough to enable their bent up extremities to overlap the margins of the sole plate. Thus the iron may be engaged at its bottom end with the lugs 33 and 34, resting on and being supported by them, and the clamps 27 and 29 are located so that they will engage the opposite sides of the sole plate of the iron at points intermediate the toe and heel ends of the sole plate.

As will be seen from the drawings, the levers 22 and 23 cross one another and extend on downward inclinations toward the side walls 14 and 16. Their foot portions 30 and 31 extend at opposite inclinations toward one another so that the lugs 33 and 34 are spaced apart less than the width of the heel end of irons throughout a considerable range of dimensions, having straight heel ends. These foot portions are also disposed in approximate conformity with arcs concentric with the pivots 24 and 25, respectively.

A spring wire 39 is coiled around the thimble 19, being contained in a groove in the exterior of the thimble, and its ends extend in opposite directions and are engaged with abutments 40 and 41 on the levers, in such manner as to exert upward thrust thereon and cause the levers to assume the positions shown in Figs. 4 and 5 when not acted on by any other force. These abutments are preferably made by partially severing, and bending out, tongues from the substance of the levers. They may be otherwise made however. In this position the outermost points of the levers 22 and 23 are swung outward into contact with the walls 14 and 15, which limits their movement in that direction, the clamps 27 and 28 are projected outwardly to the extent that the space between them is wider than the width of that portion of an iron with which they are intended to engage, and the lugs 33 and 34 are placed in an elevated position. When so placed, the levers and clamps are set for reception of an iron.

When an iron is placed on the holder to be supported thereby, it is brought toward the holder until its sole plate is located between the clamps 27 and 29 and the heel of the sole plate is above, or on, the lubs 33 and 34. It is then moved downward, or allowed to descend by gravity while the user continues to hold its handle, whereby the lugs are caused to descend and, in descending, to bring the levers 22 and 23 to a steeper inclination and move the clamps 27 and 29 inwardly to gripping engagement with the sole portion of the iron. When such gripping engagement occurs, the lugs are prevented from descending further and the iron is held and gripped at bottom and opposite sides. The bent up extremities of the clamps and lugs interlock with the sole plate or portion of the iron and positively prevent it from falling away. To remove the iron it is only necessary to grasp the handle, raise it, and move it away from the holder.

Studs 42, forming shallow rounded protuberances, are preferably mounted on the forward face of the holder base in order to prevent the applied flatiron from being placed in extended surface contact with the base and heating it.

In order to accommodate the clamping means to a wide range of flatirons of different dimensions, the clamps may be connected adjustably to their respective operating levers. Figs. 1–5 show one mode of construction by which such adjustable connection may be effected. Referring to Figs. 2 and 3, the arm 28 which carries clamp 29 is made as a separate piece from the lever 23 and has a sector shaped arm 43 similar to the arm 38 which is mounted on the pivot 25. The lever 23 is provided with a seriese of holes 44 arranged in an arc concentric with the pivot, and the arm member 28 has a similar series of holes 45 concentric with the pivot and at the same distance therefrom as the holes 44. Any one of the holes of each series can be placed in register with any hole of the other series and a screw 46 is passed into the registering holes from the back. In the illustration, the arm member 28—43 is located in front of the overlapping part of lever 23, and the holes in it are threaded to mate with the threads of the screw. The lever 22 and arm 26 are similarly constructed and adjustably connected. However, each lever and its clamp may be made of a single integral piece if desired.

A bracket or cleat made of stiff wire 47 is secured to the holder so as to project downwardly from the lower extremity thereof and forwardly. It is shaped to provide parallel members 48 and 49, around which the conductor cable of an electric iron can be wrapped when the iron is mounted on the holder, and outwardly offset corner bends 50 and 51 to prevent slipping off of the cable.

A modification in the design of clamping means for the holder, otherwise like that shown in the preceding figures, is shown in Figs. 7–9. Some electric flatirons are made with protuberant rounded heel ends at the sole portion. The arrangement last referred to is adapted to accommodate such irons; and it will also accommodate those of which the heel end is straight across, as well as those of any other outline which may have a narrow projecting formation at the middle of the heel end.

Here the base or body portion of the holder is the same as that shown in Figs. 1–5, and corresponding parts are designated by the same reference characters. The side clamps 27 and 29 are carried by levers 22*a* and 23*a* connected to the base by pivots 24*a* and 25*a*. Lever 22*a* is made with an arm 51 which extends upwardly from the pivot 24*a* at an inclination toward the opposite side of the body portion from that to which the pivot is adjacent. Lever 23*a* has a similar and oppositely inclined arm 52. These arms cross one another and their upper extremities are connected by pivots to links 53 and 54, respectively, the lower ends of which are coupled by a common pivot 55 with a slide 56 which protrudes from the lower end of the holder body and carries a forwardly projecting lug or clamp

57 having an upwardly bent terminal lip or flange 58.

The slide 56 is guided by the tubular stud or thimble 19, having a longitudinal slot 59 in its middle portion, the edges of which embrace the thimble and are confined in a groove in the external circumference of the thimble. The upper end of slot 59 is enlarged with an outline similar to the circumference of the thimble and of larger dimensions, to permit assembling of the slide with the thimble.

The clamp levers are provided also with arms 60 and 61 which extend downwardly from the pivots 24a and 25a. A spring 62 is connected at its opposite ends with the lower extremities of the last named arms and extends across the space between them beneath thimble 19 and in rear of slide 56. It is a helical spring and is under such tension that it tends to draw the arms 61 and 62 together. Thus it spreads the clamps 27 and 29 apart and raises the slide 56 to the limit permitted by the thimble 19 (or the bottom edge of the base plate) when lug 57 is free from any superimposed weight.

A flatiron is mounted on and dismounted from the holder last described in the same way as with the one first described. When placed with its sole portion against the studs 42 between the side clamps and above the lug 57, and then allowed to descend until its heel portion engages and depresses the lug 57, the movement thereby imparted to slide 56 causes the levers 22a and 23a to be rotated about their pivots, to a more or less close approximation of the positions shown in Fig. 9, and until the clamps 27 and 29 are brought up against the sides of the iron. The iron thereupon is supported at the bottom end and gripped at bottom and sides so that it cannot fall away from the holder. Raising of the iron allows spring 62 to spread the side clamps apart and release their gripping effect. In this embodiment the lug 57 constitutes a bottom clamp for the flatiron; and in the embodiment shown in Figs. 1–6, the lugs 33 and 34 collectively constitute a bottom clamp. In both embodiments the bottom clamp is normally raised by spring means and the side clamps at the same time spread apart; and downward movement of the bottom clamp from the normal raised position causes the side clamps to be moved toward one another.

It will be understood that a wire cleat like that shown in Fig. 1 for holding the conductor cable of an electric iron may be, and preferably is, combined with the holder shown in Figs. 7, 8 and 9. The variation in clamping means there shown does not require elimination of the cable cleat.

It will be appreciated from the foregoing description that the clamping means, in both embodiments shown, are adapted to grip a flatiron firmly, hold it securely, accommodate themselves automatically to different irons varying from one another in dimensions through a considerable range, and project to a minimum distance from the rear plane of the holder. Thus it is possible to make holders of this design, of which the extremities of the clamps project less than one inch from the plane of the wall structure on which the holder is mounted.

What I claim is:

1. A flatiron holder comprising a base adapted to be mounted on a wall structure, and clamping means in articulated connection with said base; said clamping means including side clamps and a bottom clamp interconnected so that downward movement of the bottom clamp from a raised position causes the side clamps to be moved toward one another.

2. A flatiron holder comprising a base member adapted to be mounted on the surface of a wall or other upright structure, side clamps pivotally connected with the base member in a manner to be movable toward and away from one another, a bottom clamp connected with the side clamps and arranged to be movable in an up and down direction, and spring means acting on said clamps tending to move the side clamps laterally outward and the bottom clamp upward.

3. A flatiron holder comprising a base member adapted to be mounted on a wall or other upright structure, a clamp on said base member arranged to be engaged with one side of the sole portion of a flatiron when the iron is placed against the holder, a second side clamp movably mounted on the base member with provision for movement toward and away from the first clamp so as to cooperate therewith in gripping and releasing an iron, a bottom clamp connected with the movable clamp in position to underlie the sole portion of a flatiron placed against the base member between the side clamps, said bottom clamp being arranged to cause movement of the second side clamp toward the first side clamp when moved downwardly from a raised position, and spring means mounted to react between the base member and clamps with tendency to hold the second side clamp withdrawn from the first named clamp and the bottom clamp in a raised position.

4. A flatiron holder comprising a base member adapted to be mounted on a wall or other upright support, two levers pivoted to the base member carrying clamps disposed adjacent to opposite sides of the base member with a space between them adapted to receive the sole portion of a flatiron, spring means acting on said levers tending to hold them in position wherein the clamps are spread apart and arranged to permit movement of the levers bringing the clamps toward one another, and bottom clamp means connected with the levers, extending outwardly from the base member below the side clamps; said bottom clamp means being movable in an up and down direction, upwardly when the side clamps are moved outward, and downwardly when the side clamps are moved inward.

5. A flatiron holder comprising a base member adapted to be mounted on a wall or other upright support, a side clamp on the base member adapted to engage one side of the sole portion of a flatiron placed flatwise against the base member, a second side clamp in movably supported connection with the base member spaced apart from the first side clamp and adapted to cooperate therewith in grasping an iron when moved toward the first clamp, a bottom clamp in operative connection with the second side clamp in position to be engaged and moved downward by the heel end of a flatiron placed against the base between the side clamps, said bottom clamp being so connected with the second side clamp that, when so moved downward, it moves the second side clamp toward the first side clamp, and spring means organized to hold the second side clamp in outward position and the base clamp in raised position when free from other force application.

6. A flatiron holder comprising a base member having a front wall and lateral side walls, levers pivoted to the base adjacent to said side walls, each having an arm projecting laterally through

the adjacent side wall and a clamp element on such arm projecting forwardly, the levers also having each a downwardly inclined arm crossing the corresponding arm of the other and foot portions on the last named arms formed with forwardly extending bottom clamps, said levers being so arranged that downward movement of the bottom clamps causes rotative movement of the levers and inward movement of the laterally extending arms thereof, and spring means mounted on the base member and engaged with the levers to exert force tending to hold them in positions where the bottom clamps are raised and the lateral arms are outwardly projected.

7. A flatiron holder according to claim 5, in which one of the side clamps is adjustable to enlarge or restrict the distance between itself and the other side clamp.

8. A flatiron holder according to claim 5, in which both side clamps are adjustable so as to increase or diminish the distance between them.

9. A flatiron holder according to claim 6, in which the laterally extending arms of the levers are adjustably connected with the other arms so as to be projected more or less far outwardly from the side walls of the base member.

10. A flatiron holder comprising a base member adapted to be mounted on a wall, levers pivoted to said base member, each having a laterally

extending arm with a side clamp thereon, said side clamps being separated widely enough to receive between them the sole portion of a flatiron and being movable together and apart by angular movements of the levers by which they are carried, a slide mounted on the base member with provision for movement up and down and having a bottom clamp arranged for engagement with the bottom end of a flatiron placed between the side clamps, coupling means between said slide and the levers organized to transmit movement between the levers and slide with outward projection of the side clamps when the slide is raised and inward movement of the side clamps when the slide is lowered, and spring means arranged to apply force to said levers and slide with tendency to hold the side clamps in outwardly projected positions and the slide in raised position.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
361,630	Husband	Apr. 19, 1887
1,759,214	Winters	May 20, 1930