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AUTOMATIC SAFETY FLATIRON HOLDER

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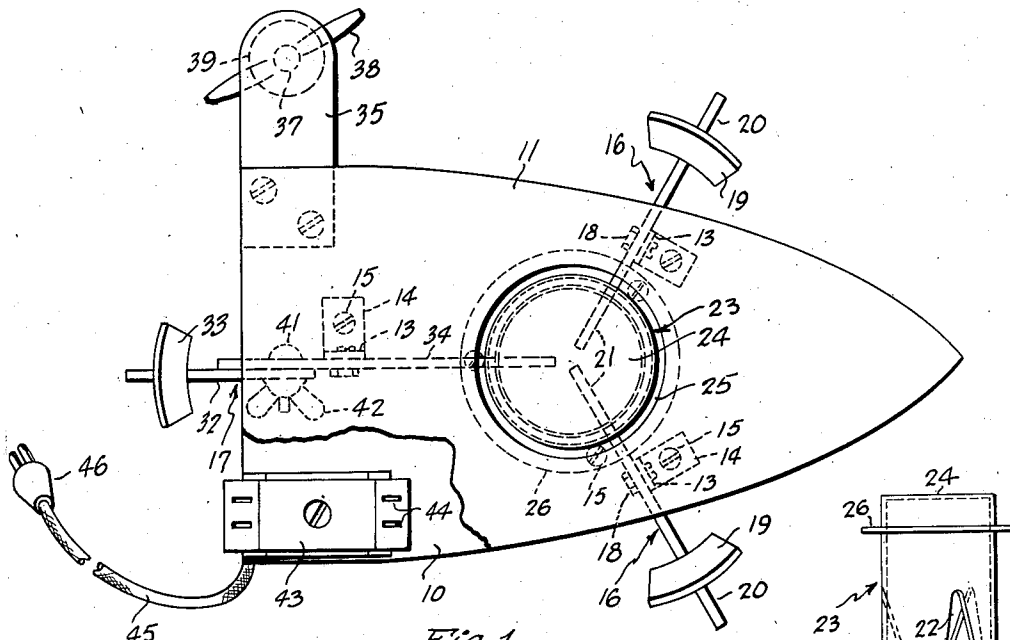


Fig. 1.

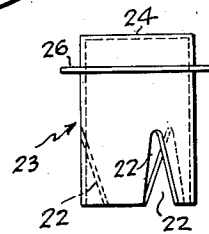


Fig. 3.

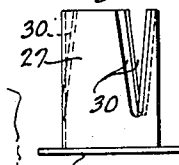


Fig. 4.

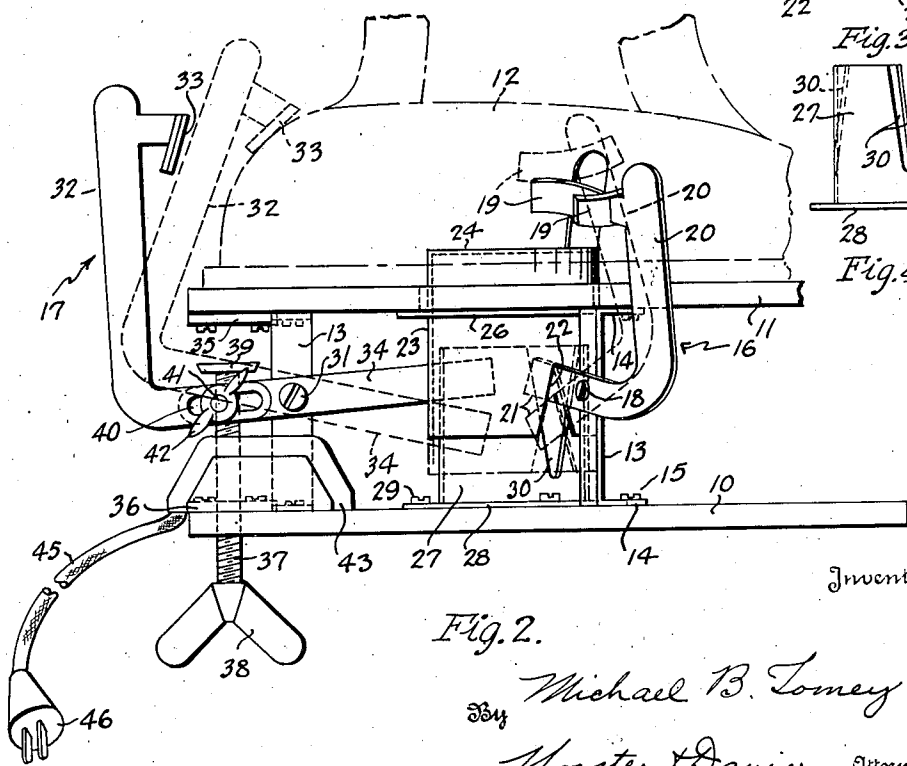


Fig. 2.

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# UNITED STATES PATENT OFFICE

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## AUTOMATIC SAFETY FLATIRON HOLDER

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8 Claims. (Cl. 248—117.2)

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This invention relates to a holder for flatirons, and has for an object to provide a safety flatiron holder which will hold the hot iron when not in use against danger of its being pushed or knocked off or dropped to the floor, or dropped on a user's foot, and so forth.

Another object is to provide a holder for flatirons in which the iron when on the holder is positively gripped by a holding means, so that there is no danger of the iron being shaken or knocked off the holder.

Another object is to provide a construction in which the operation of placing the flatiron on the holder shifts the holding means to the holding position, in which position they are held by the weight of the iron so long as the iron is on the holder, but will automatically release the iron when it is lifted from the holder.

A further object is to provide a device of this character which is of simple construction and can be manufactured at low cost, and may be readily clamped on the edge of an ironing board, table or other similar device for most convenient use.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawing forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In this drawing:

Fig. 1 is a top plan view of the device with the flatiron removed and with a portion broken away to more clearly show the construction;

Fig. 2 is a side view thereof, showing in dotted lines an iron on the holder and the holding means engaging this iron to hold it on the holder;

Fig. 3 is a side view on a reduced scale of the plunger operated by the iron to operate the holding means, and

Fig. 4 is a side view of the cooperating guiding means for this plunger.

This holder comprises a base 10 and a platform 11 spaced above the base on which a flatiron, indicated in dotted lines at 12, may rest and be supported. The base and the platform are supported in spaced relation by suitable straps or supports 13. These may be upright flat bars with angularly positioned feet 14 at their upper and lower ends secured to the upper side of the base 10 and the underside of the platform 11 by any suitable means, such, for example, as the screws 15. Any desired number of these supports may be used, but three are found sufficient and are preferred, arranged substantially as shown in Fig. 1.

Pivoted to each of these separators or brackets 13 is an angularly shaped lever 16 and 17. There are two levers 16 alike, pivoted at the supports 13 toward the front of the platform, while the lever

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17 is positioned or located to the rear of this platform. The levers 16 are each pivoted to one of the supports 13 at a suitable intermediate point 18, and at their upper ends carry a grip 19, preferably curved so as to more or less fit the curved surface of the iron 12, and overlie and grip this surface when in the holding position. The outer upright arm 20 of these levers is outside the edge of the platform 11, and joins with a lower substantially horizontal arm 21 on the other side of the pivot 18 and extending into an inverted V-shaped notch 22 in a plunger 23. This plunger is an inverted cup-shaped member, with its upper closed end 24 located in an opening 25 in the platform 11, so that the upper end of this plunger, when the iron is removed from the holder, projects above the upper surface of the platform 11, as shown in full lines in Fig. 2. The upward movement of this plunger may be limited by any suitable stop means, but in the present case it is provided with an external flange 26 secured on the outer surface of the plunger and spaced the proper distance below its upper closed end so as to engage the under side of the platform 11, as shown in full lines Fig. 2. Mounted on the base 10 under the plunger 23 and telescoped in it is a cupped member 27. This has a flange 28 at its lower end by which it may be mounted on the upper side of the base 10 by any suitable means, such as the screws 29, and in its side walls has V-shaped notches 30 extending downwardly from its upper edge in alignment with the notches 22 in the plunger 23. The plunger 23 is telescoped over this cup 27 and has vertical sliding movement thereon, this cup forming a guide means for the plunger. Therefore, when in place the inwardly extending arms 21 of the levers 16 extend into both notches 22 in the plunger and the notches 30 in this guide member 27.

The rear lever 17 is similarly constructed, but has longer arms. It is pivoted to the rear upright support 13 at 31, and its upright arm 32 is rearwardly of the rear edge of the platform 11, and has adjacent its upper end a grip 33 preferably curved so that when in the gripping position, as shown in dotted lines Fig. 2, it effectively substantially fits and grips the curved upper wall of the iron, as shown in dotted lines. The other arm 34 of the lever extends inwardly and seats in a pair of the aligned notches 22 and 30 of the plunger 23 in the guide 27. The plunger 23 is therefore supported on the inwardly extending arms 21 and 34 of the three levers, the top of the notches 22 resting on the tops of these arms. Therefore, when the iron 12 is placed on the platform 11, it is placed on the top of the plunger 23, and the weight of the iron will force this plunger downwardly. This action will force the inwardly extending arms 21 and 34 of the levers 16 and 17 downwardly about their pivots 18 and 31, and will

swing their upright arms with their grips 19 and 33 inwardly over the top of the iron, so that these grips overlie and grip the upper surface of the iron, and effectively and securely hold it in the position on the platform 11 against any danger of being pushed or knocked off by hitting the iron laterally, or of its being shaken off. There is therefore no danger of the iron being shaken or knocked off so as to drop to the floor or onto and injure what is on the ironing board, to set anything afire or do any damage. However, when the operator wishes to use the iron for ironing purposes, all that is necessary is to lift it upwardly from the platform 11. This automatically removes the pressure and weight of the iron from the upper end of the plunger 23, and as the heavier portion of the levers 16 and 17 are outwardly of their pivots 13 and 31, they will automatically swing outwardly to their full line positions, thus removing their grips 19 and 33 from the iron and releasing the iron for use. But as soon as the iron is again placed back on the platform, its weight will again depress the plunger 23 and again swing these arms inwardly to their dotted line position to grip and hold the iron on the platform. Therefore, it can be seen the operator does not need to pay any attention to operating the gripping means, but they are automatically swung to the gripping or holding position by the simple act of placing the iron on the holder, and they are automatically released or swung to the iron releasing position by the simple act of raising the iron from the holder. However, in spite of this automatic gripping and release, the iron when on the holder is effectively and securely held against being shaken off, or pushed or knocked off laterally.

This holder may be supported by resting on top of the ironing board or a table or the like, by setting the base 10 on it, but means is also provided for clamping it to the edge of the ironing board, table or other support. For this purpose a clamp is provided comprising an upper laterally extending member 35 secured to the platform 11, and a lower similar member 36 secured to the base 10, and having in it a suitable clamp screw 37 provided with a winged head 38 and a clamping disc 39 on its upper end for clamping the edge of an ironing board between the extension 35 and this clamp 39 to hold the device in clamped position.

The rear lever 17 is preferably made in two sections, the inner extending arm 34 forming the greater part of one section and the upwardly extending arm 32 the other section. In one of them, in this case the arm 32, is provided an elongated slot 40 with a screw 41 mounted in the other section and extending through this slot. On this screw is a wing nut 42 whereby the two sections can be clamped together. By this arrangement, after loosening the nut 42, the outer arm 32 may be adjusted outwardly or inwardly on the inner section and then clamped in adjusted positions to accommodate the device for different sizes of irons. With a longer or larger iron it would be adjusted backward to accommodate the increased size of iron.

There is also preferably provided on the base 10 an auxiliary electrical plug-in socket 43 provided with two or more sets of plug-in slots 44 to receive the parallel blades of an attachment plug cap usually provided on the outer end of the electrical conductor cord secured to the iron. A conductor cord 45 extends from this receptacle 43, and is provided with a similar attachment plug cap 46 to plug into the usual outlet in the house

wiring system. After this is plugged into the house wiring outlet, the receptacle 43 makes a convenient outlet connection to the flatiron conductor cord and keeps this cord more out of the way and free of the work in the ironing operation than is usual where the iron conductor cord is plugged directly into the outlet of the house wiring system. It also gives a greater range for use of the iron.

It will be clear from the above that this device makes a very effective holder for the iron when not in use, that when the iron is in the holder it is so gripped and held that there is no danger of its being jarred or shaken off the holder, or pushed off laterally or knocked off by a lateral blow on the iron. However, when the iron is merely placed on the holder, this action, through the weight of the iron, automatically shifts the holding means to engage the iron and retain it in holding position, but the iron is automatically released by merely lifting it from the holder.

Having thus set forth the nature of my invention, I claim:

1. A flatiron holder of the character described comprising a support for the iron, a plurality of arms about the support including grips to engage over the iron to hold it on the support and movable away from the iron to release it, and means on and movable relative to the support operable by the weight of the iron to swing said grips to position them over the iron to hold it.

2. A flatiron holder comprising a support for the iron, a plurality of upright arms located about the support and including grips adapted to engage the iron to hold it on the support, means projecting above the support to be engaged by the iron when it is placed on the support to depress said means, and a connection from said means to the arms to swing the grips to iron holding position when said projecting means is depressed by the iron.

3. A flatiron support comprising a platform to receive the iron, supports for the platform, a plurality of levers pivoted to the supports, said levers each including an upright arm provided with a grip to engage the iron to hold it on the platform and a lower arm extending under the platform, and a vertically movable plunger so mounted in the platform as to project above it to be engaged by the iron when on the platform and resting on said lower arms to swing the grips inwardly to engage the iron when the plunger is depressed by the weight of the iron.

4. A flatiron support comprising a platform to receive the iron, supports for the platform, a plurality of levers pivoted to the supports, said levers each including an upright arm provided with a grip to engage the iron to hold it on the platform and a lower arm extending under the platform, a plunger comprising an inverted cupped member extending through an opening in the platform and normally projecting above it, the side walls of the plunger being provided with notches into which the lower arms of the levers project so that the plunger is supported on them, and an upright tubular member over which the plunger is telescoped to form a guide for said plunger.

5. A flatiron support comprising a platform to receive the iron, supports for the platform, a plurality of levers pivoted to the supports, said levers each including an upright arm provided with a grip to engage the iron to hold it on the platform and a lower arm extending under the

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platform, two of said levers being placed to grip the iron on opposite sides rearwardly of its pointed end, and a third being positioned at the rear end of the platform to engage over the rear straight end of the iron, said latter lever comprising two connected sections adjustable relatively to lengthen or shorten the lever for irons of different sizes, means for securing the sections in adjusted positions, and a plunger mounted in the platform to normally project at its upper end above the surface of the platform and connected with said inwardly extending arms of the levers to swing the grips to engage the iron when the plunger is depressed by the weight of the iron, as it is placed on the platform.

6. A flatiron support comprising a base, a platform spaced above the base, upright supports between and connected to the base and the platform, an angularly shaped lever pivoted to each support and comprising an upright arm outwardly of the pivot and provided with a grip at its upper end to lie over and engage the upper surface of an iron seated on the platform, each lever also comprising a second arm extending inwardly from its pivot under the platform, and an upright plunger extending through the platform with its upper end normally projecting above the platform, said plunger resting on the inwardly extending arms of the levers so that when the plunger is depressed by the weight of the iron placed on the platform it will swing

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the upright arms inwardly to place the grips over the iron.

7. A flatiron support comprising a platform to receive the iron, a plurality of levers pivotally mounted under the platform and each including an upright arm provided with a grip to overlie and hold the iron and a second arm extending inwardly under the platform, a plunger projecting above the platform and adapted to be depressed by the weight of the iron when placed on the platform, said plunger being connected with the inwardly extending arms to swing the grips inwardly by downward movement of the plunger, and a clamp for securing the platform to the edge of an ironing board and the like.

8. A flatiron holder including a platform adapted to hold the iron, a plurality of levers provided with holding means to retain the iron on the platform and movable to and from holding position, and means movable relative to the platform and operated by the weight of the iron when it is placed on the platform to swing said holding means to holding position.

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#### REFERENCES CITED

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

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