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STEAM IRON HOLDER

Filed Nov. 21, 1963

FIG. 1

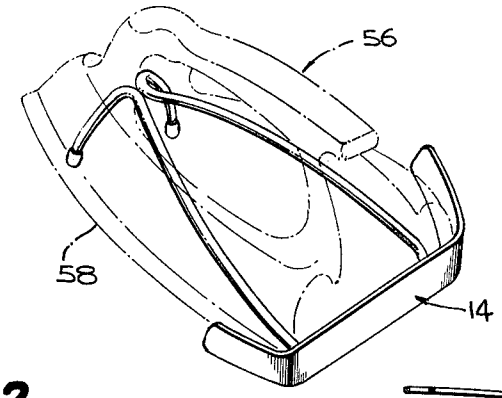


FIG. 2

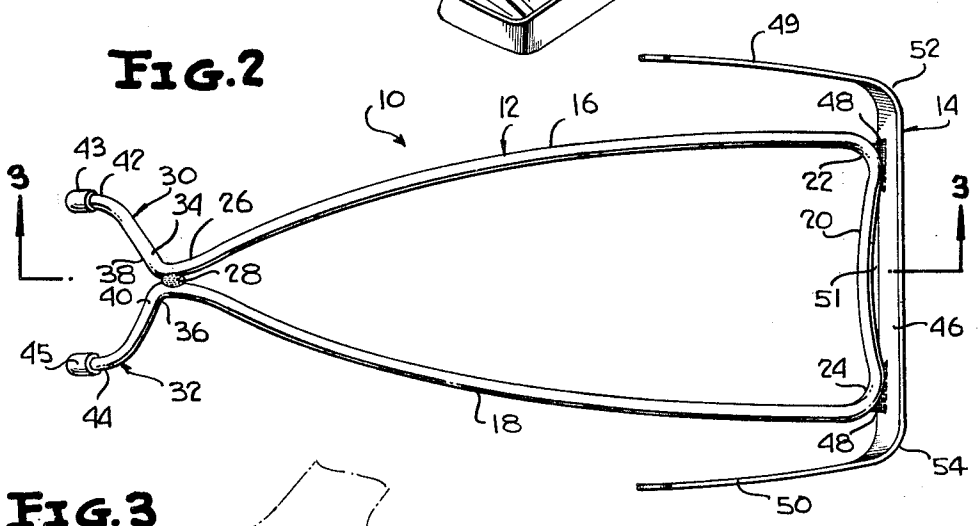
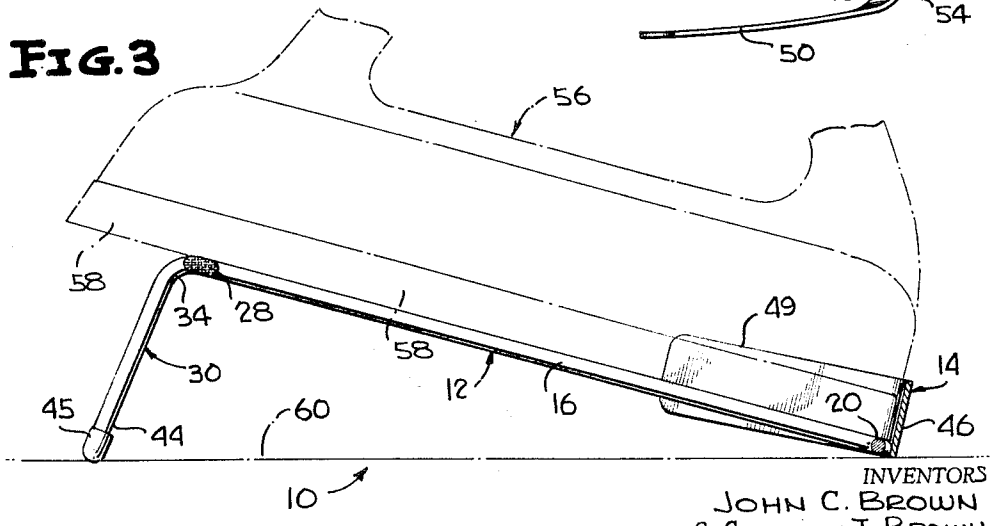


FIG. 3



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STEAM IRON HOLDER

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This invention relates to a supporting device, and more particularly to a device for supporting a steam iron on a horizontal surface such as an ironing board cover in such a manner that the iron is held in an inclined position so that the iron will usually not generate steam, but if the iron is of the type that does generate steam when inclined, the steam generated thereby will not saturate or scorch the horizontal surface when the iron is supported on the supporting device.

Most conventional steam irons are so made that when they are in a horizontal position, steam will automatically be generated within the iron and ejected through ports in the bottom of the iron base. When the iron is inclined to the horizon, automatic means built into the iron cuts off or prevents steam from being generated. Accordingly, it is a primary object of this invention to provide a novel holder for steam irons so that when a steam iron with an automatic cut-off is supported on the holder, it is maintained in an inclined position so that the automatic cut-off will function to prevent the iron from generating steam, and if the iron is of a type without such automatic steam cut-off, the holder will support the iron in an elevated position above a supporting surface such as an ironing board cover so that steam generated by the iron will not saturate or scorch the surface.

It is another object of this invention to provide a steam iron holder that is extremely simple in design.

It is yet another object of the invention to provide a steam iron holder that is so designed that it will remain relatively cool even when supporting a very hot iron thereon. The holder remains relatively cool when supporting a hot iron because there is a minimum of metal-to-metal contact between the holder and the hot iron which it supports, and the holder has a large exposed surface area which permits the surrounding atmosphere to effectively cool it.

It is another object of this invention to provide an iron holder which is of sturdy construction, is durable in use, and is pleasing in appearance.

It is still another object of this invention to provide a steam iron holder which includes a novel heel plate secured to a base, and the heel plate is so designed that it will strengthen the base, stabilize the base while in use so as to prevent tilting thereof, will serve as a means for guiding the iron onto the base, will prevent the iron from sliding laterally off the base, and functions as an additional heat radiating means for keeping the iron holder relatively cool.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings, wherein:

FIG. 1 is a perspective view of the invention;

FIG. 2 is an enlarged plan view; and

FIG. 3 is a vertical cross sectional view taken substantially on the plane of line 3—3 of FIG. 2.

As illustrated in the drawings, wherein the same reference numerals indicate identical parts throughout the various figures, the steam iron holder **10** comprises a base **12** and a heel plate **14**.

As illustrated in FIGS. 1 and 2, the base **12** is of substantially triangular shape and is composed of a single elongated integral piece of material such as heavy metal wire. The piece of material is bent so as to form con-

vex or outwardly curved sides **16** and **18** integrally connected to a heel **20** by relatively sharply curved corners **22** and **24**. As illustrated in FIG. 3, the sides **16** and **18** and the heel **20** lie in the same flat plane. The forward ends of the sides **16** and **18** converge together to form a substantially pointed nose **26**, and the sides are secured together at the nose by a weld **28**.

The free ends of the wire forming the base are bent outwardly and downwardly in diverging relationship so as to form supporting legs **30** and **32** which extend substantially perpendicular to the plane defined by the sides **16** and **18** and the heel **20**. The legs **30** and **32** are integrally connected to the sides **16** and **18** by relatively sharp arcuate corners **34** and **36**.

As shown in FIGS. 2 and 3, each of the legs **30** and **32** lie in a flat plane which is substantially perpendicular to the plane defined by the sides **16** and **18** and the heel **20**. Each of the legs includes an upper portion **38** or **40** which diverge downwardly from one another and are inclined relative to the plane of the base defined by the sides **16** and **18** and heel **20**. As shown in FIGS. 1 and 2, the legs **30** and **32** are curved inwardly towards each other so that the legs terminate in feet **42** and **44** which are substantially parallel to one another. Cup-shaped plastic caps **43** and **45** telescopically and snugly receive the lower ends of the feet **42** and **44**. The bottom ends of the caps **43** and **45** are rounded so as not to catch or snag the supporting surface **60** which may comprise an ironing board cover composed of fabric.

The heel plate **14** is preferably formed from an elongated strip of sheet metal bent into a substantially U-shape. However, the heel plate could be made of wire or other material. The heel plate includes a central or bight portion **46** which lies in a plane substantially perpendicular to the plane of the base **12**. As shown in FIG. 2, the heel **20** is bowed or curved inwardly between the sides **16** and **17**, and the bight portion **46** of the heel plate contacts the curved corners **22** and **24** and is welded thereto by welds **48**. An insulating air space **51** is provided between the heel **20** and bight portion **46**, and the welds **48** provide the only contact between the heel and bight portion so that only a very small amount of heat may be transmitted from the frame **12** to the heel plate **14**. The bight portion **46** is integrally connected to forwardly diverging guide and stabilizing flanges **49** and **50** by arcuate corners **52** and **54**. The flanges **49** and **50** each lie in substantially vertical planes which are equally spaced from the sides **16** and **18** and which diverge therefrom in a forward direction.

As illustrated in FIGS. 1 and 3, the holder **10** is adapted to support a steam iron **56** thereon, which includes a flat base **58** of substantially the same shape as the holder base **12** but larger in size. The plastic caps **43** and **45** and the heel **20** are adapted to contact a flat horizontal supporting surface **60** such as the surface of an ironing board so as to support the base **12** in an inclined position whereby the nose **26** is elevated a substantial distance above the heel **20**. Thus, when the iron **56** is supported on the holder **10**, the front of the iron is elevated above the heel thereof and the bottom surface of the iron spaced above the surface **60**. Conventional steam irons are usually provided with automatic means which cut off the steam generating means therein when the front or nose of the iron is inclined above the heel thereof. Thus, when a conventional steam iron of this type is supported on the base **12**, it is inclined so that it will not generate or produce steam. If the iron is of the type that produces steam when inclined, the steam produced by the iron when it is supported on the holder **10**, will not saturate or scorch the surface **60** because of the spacing between the base of the iron and the supporting surface **60**.

When the iron **56** is supported on the holder **10**, its base **58** which is normally at a relatively high temperature, contacts the base **12** of the holder **10** only at the extreme top surface of sides **16** and **18**. It is noted that in electric irons, the hot base **58** does not extend the entire length of the iron, and the base **58** of the iron has only line contact with the base **12** of the holder. The end of the iron **56** which is relatively cooler than the base **58** of the iron is the only portion of the iron that contacts the heel plate **14**. Since the hot base of the iron has only line contact with the base **12**, only a small amount of heat can be conducted from the iron to the holder **10**, and this heat is dissipated into the surrounding air. Since the only metal-to-metal contact between the base **12** and the heel plate **14** is at the welds **48**, the small amount of heat conducted through these points to the heel plate, plus the small amount of heat from the relatively cool iron end which is directly transmitted to the heel plate, is dissipated into the surrounding air. The large surface area of the plate **15** permits it to be rapidly and efficiently cooled by the surrounding air. Thus, the holder **10** always remains at a relatively cool temperature so that the surface **60** cannot be damaged and there is little danger of burning the operator of the iron.

Since the flanges **49** and **50** diverge forwardly from one another, the iron may be placed on the central portion of forward portion of the base **12** and then moved rearwardly so that the sides of the iron base **58** engage the inner vertical surfaces of the flanges **49** and **50** so that the flanges guide and center the iron on the base.

Although welding has been disclosed as the preferred means for securing various parts of the holder together, it is to be understood that other securing means, such as rivets, may be alternatively used.

The cross sectional shape of the wire comprising base **12** is preferably round or circular, but may be of other shapes such as square, triangular, or flat.

Inasmuch as various changes may be made in the form, location, and relative arrangement of the several parts without departing from the essential characteristics of the invention, it will be understood that the invention is not to be limited except by the scope of the appended claims.

We claim:

1. A holder for supporting a steam iron in an inclined position above a substantially horizontal surface comprising a substantially triangular shaped base composed of one integral elongate piece of metal, said base having two sides converging to a nose adjacent the ends of the elongate piece, a heel connecting the said sides and forming the third side of the triangular shaped base, a U-shaped metal heel plate having diverging side flanges connected by a bight portion, means connecting said bight portion to said heel, said flanges being equally spaced in a lateral direction from said two sides and diverging as they extend away from said heel towards said nose, said side flanges and bight portion including portions extending above said base, and support means secured to said base positioning said nose above said heel and comprising said ends of the elongate piece adjacent said nose extending downwardly in diverging relationship relative to said two sides to support said nose above said heel.

2. A holder as defined in claim 1, wherein said means connecting said bight portion to said heel comprises welds and wherein the two sides of the piece are secured together adjacent the nose by welds.

3. A holder for supporting a steam iron in an inclined position above a substantially horizontal surface comprising a U-shaped metal strip having a central portion and two diverging flange portions which form dihedral angles with said central portion on a first side thereof, an elongate metal piece having a major portion thereof consisting of spaced apart elements which lie in the same plane and which are connected to said metal strip on the first side of said metal strip, said major portion being perpendicular to said central portion of said metal strip and lying in part between said flanges, said elongate metal piece remote from its connection to the metal strip extends downwardly at about 90 degrees to define leg means which together with the lower edge of the central portion of the metal strip normally engage the surface on which the holder is placed.

References Cited by the Examiner

UNITED STATES PATENTS

2,315,474	3/43	Wolcott	248—117.2

FOREIGN PATENTS

22,632	12/17	Denmark.
322,148	7/20	Germany.
839,189	5/52	Germany.
166,468	1/34	Switzerland.

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