March 3, 1942. J. C. CHENETTE 2,274,918

LIFTING AND PORTABLE MOVING IRON

Filed June 5, 1940

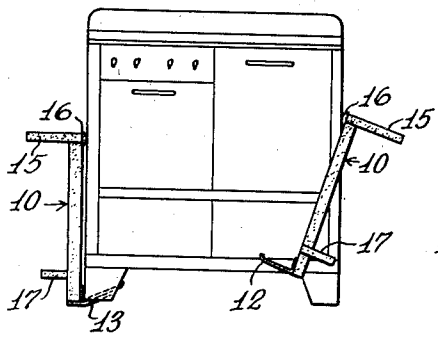


Fig. 1.

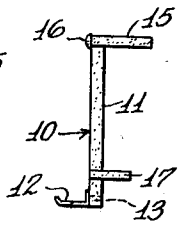


Fig. 2.

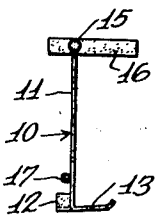


Fig. 3.

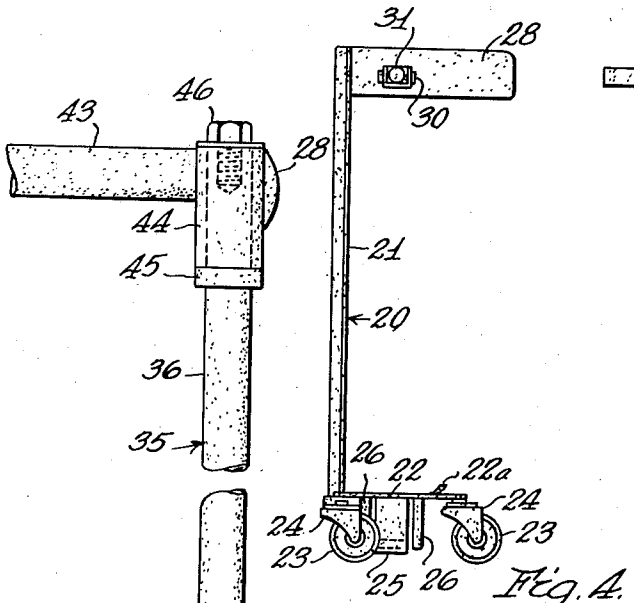


Fig. 4.

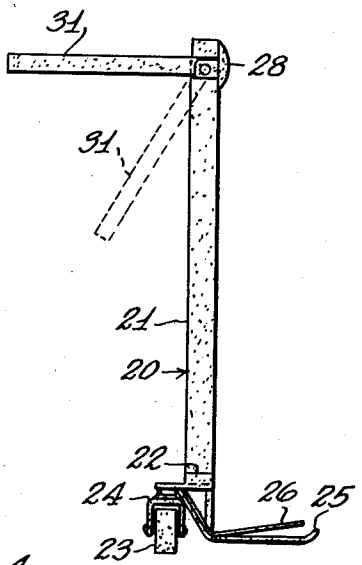


Fig. 5.

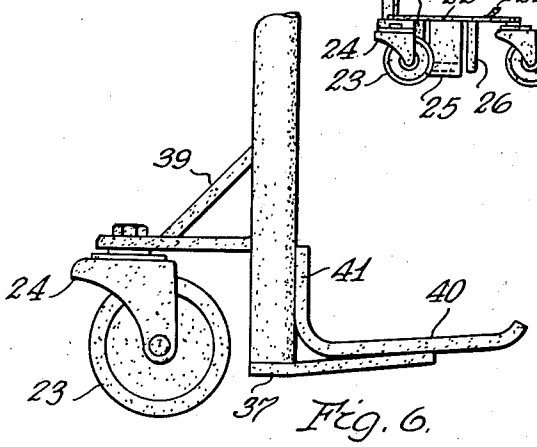


Fig. 6.

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LIFTING AND PORTABLE MOVING IRON

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Application June 5, 1940, Serial No. 338,849

3 Claims. (Cl. 294—15)

This invention relates to raising and transporting devices in general and more particularly, concerns lifting irons with or without casters, which afford portability, for moving heavy cumbersome household articles not provided with convenient hand holds and having leg or cabinet bases.

Heretofore in moving displays in stores, or effecting delivery of merchandise, such as refrigerators, stoves, circulating heaters, modern furniture etc., having a porcelain enamel or other marrable finish, it was a real two man job to adjust or transport such articles without first blanketing the outer surface thereof and then placing it on some form of portable truck. Where the article was merely to be moved around, for example in a store or display room it was also a back breaking job to bend down, get a hand hold around the base of the article and then carry it to a new location, especially if the article had no legs, and was of the so-called flat or cabinet base type, or in which the moving quarters were cramped by other closely adjacent articles or walls. In my prior issued Letters Patent No. 2,178,738, of November 7, 1939, for Carrying iron there is illustrated the first real practical rubber sheathed lifting iron for picking up such articles with comparative ease and facility to the operator without danger of slippage or marring the finish thereof. The shortcoming of the scope of the device disclosed in my prior patent is that it was limited to use on leg type household appliances such as stoves, furniture, ranges, refrigerators, etc. Accordingly, the present invention is an improvement thereover in that leg type or cabinet base articles of the type described may be lifted and carried or rolled upon casters with ease.

Among the objects of the present invention is the provision of a completely rubber sheathed lifting and carrying iron which may be used for moving leg or cabinet base articles; the provision of a lifting iron, as above described, having one or more hooks or bearing members adjacent the lower end thereof for supporting flat or cabinet base articles and leg type appliances; the provision in any lifting iron, as above described, of swivelable caster means affording portability and a self-standing device; the provision in a castered self-standing lifting iron, as above described, of pivotable or rotatable handle means adjacent the upper end thereof providing ease of movement of an article to be moved in cramped or close quarters; the provision in a lifting or moving device, as above described, of an elongated cushioned bearing member adjacent the upper end thereof preventing localized pressure upon a small area of the article to be moved.

A further object of the present invention is the provision of a rubber sheathed lifting and moving iron, for articles of the class described, of the self-standing rollable type having a pair of support hooks, one laterally disposed adjacent the lower extremity for reception of flat or cabinet base type articles, and a second support hook also laterally disposed in a plane normal to said first hook and spaced thereabove for reception of leg type articles.

Further and other objects and advantages of this invention reside in the novel combination and arrangement of parts, to be hereinafter described, when considered in conjunction with the drawing forming a part of this specification and pointed out with particularity in the appended claims.

In the drawing like reference characters denote corresponding parts throughout the several views, and in which:

Fig. 1 is an elevational view of one form the carrying irons of this invention may assume as applied to a leg type stove for carrying; and

Figs. 2 and 3 are elevational views, on two vertical faces of the lifting and carrying iron shown in Fig. 1; and

Figs. 4 and 5 are two elevational views of a modified lifting and moving iron, somewhat similar to Figs. 2 and 3, but including casters and pivotal handle means adjacent the upper end thereof; and

Fig. 6 is an elevational view of another modified form of lifting and moving iron having a single hook adjacent the lower end thereof and a rotatable handle upon the upper end thereof.

In the drawing, having reference particularly to Figs. 1, 2 and 3, there is disclosed a lifting and carrying iron, generally designated **10**, which comprises an elongated bar **11** having an integral right angle foot or hook **12** upon the lower end thereof for reception of a flat base or leg type article, and including a second hook **13** in approximately the same horizontal plane of the first hook but at right angles thereto for reception of the wall of a flat base or leg type article. While the first hook **12** is integral with the bar **11**, the second hook **13** is preferably welded to the foot end of the bar at right angles to the first hook. The upper end of the vertical bar **11** is turned over at right angles to its upstanding axis to form a lateral cross piece or handle **15**, with which to grasp the iron **10** in performing a lifting operation. Extending at right angles to the

handle 15 and bar 11 a bearing member 16 is welded to the bar in T shape form. This bearing member is semi-circular or arcuate on the face which contacts a carried article, for a purpose to be presently described. Intermediate the upper and lower ends of the elongated bar 11 a second hand grip or handle 17 is welded at a right angle thereto and in the same vertical plane as handle 15 for effecting a close coupled grip on an article in going up or down stairs. The whole of the article is then dipped in a liquid rubber-like solution which bonds thereto a protective plastic coating over the entire outer surfaces of the iron so that only the rubber sheath is seen in the finished article. The lifting and carrying irons 10 are made in right and left hand pairs, of course, so as to fit opposite sides of an article to be lifted.

In use, it will be noted in Fig. 1, the right hand iron 10 has its hooked end or foot 13 hooked under the cut out edge of a leg type article and a second iron may similarly be hooked under the cut out edge of the rear face of the stove. The operation is repeated for the left hand side of the article, and the movers are ready to lift and carry the article to any desired location. It will be noted that the elongated coated bearing member 16 is pressed to the surface of the piece carried, therefore, since the pressure thereof is distributed over a broad area, there is no danger of cracking or marring a porcelain enamel or other finished surface; and since the bearing member presents an arcuate surface to the face of the piece carried it may contact the same at any angle. The illustration of the lifting iron 10 under the floor contacting section of the left foot of the leg type stove in Fig. 1, is used to illustrate the conditions existing under a cabinet or flat base article. In this case the article to be carried is first tilted forward, by slipping the lower hook of the iron under the left end of the rear wall of the article, where a lower marginal cut-out opening is usually found, and the lower hooked end 13 of a left hand lifting iron is slipped under the adjacent left rear foot. Thereafter the operation for the opposite right side of the article is repeated and the process completed when the article has lifting irons under each corner.

The form of lifting iron shown in Figs. 4 and 5 incorporates the features and advantages of the device previously described plus the added convenience of castered feet affording mobility without carrying, and a combination of bottom hooks permitting pick-up of either leg or flat base type articles. In this instance the self standing lifting iron, generally designated 20, is comprised of an upright elongated angle iron 21 with a right angle bend upon the lower end thereof forming a foot or hook 22 having an upturned outer end 22*a*, which as will be explained hereafter, is used for leg type articles. Adjacent the lower end of the upright iron 21, and spaced laterally therefrom proximate the opposite ends of the hook 22, are a pair of rubber wheel casters 23 mounted thereto by a swivelable horn 24 which makes the lifting iron self-standing and portable. Intermediate the distance between said caster wheels and welded to the hook end 22 is a depending hook 25 substantially parallel to the floor level and spaced slightly thereabove. Upon either side of the hook 25 are spring steel strips 26 projecting above the length of the hook and adapted to be bent down and pressed upwardly tightly against the underside of an article supported by the hook 25. It will be apparent that if one of the portable moving irons drops into a slight depression along the carriage way the load would be supported by the other three irons and the weight being relieved from the one iron it would fall away from the article. However, by the use of the spring steel strips 26 on either side of the hook 25 and the same being tensioned by the weight of the load supported thereby, the hook 25 will ride out the depression or bump with its load supporting face pressed firmly against the under edge of the supported article.

Upon the upper end of the upright standard of angle-iron 21 at right angles thereto is welded a laterally disposed elongated bearing member 28 having a semi-circular curved pressure face enabling the iron to be presented at various angles to the work without danger of marring the finished article; and the member due to its large area distributes the pressure over a safe area so as not to crack a porcelain enameled surface. Laterally spaced from the upright angle-iron 21 and welded to the bearing member 28, by a suitable journal 30, is a swingable handle member 31 normally disposed at right angles to the bearing member 28 to accomplish an initial lifting function and swingable down into the plane of the upright iron to provide clearance when moving in close quarters and turning corners. As in the previous lifting iron construction, this carrying iron has all the exposed surfaces sheathed in rubber so that only the rubber coating is seen when the article is viewed as shown.

The use and operation of the portable carrying iron 20 in raising an article to be moved thereby is substantially the same as for the previously described construction. That is to say, the lower hook 25 is used for supporting flat base articles and the upper hook 22 is adapted to be wheeled under leg type articles. Each of these operations presupposes, of course, that the operator secure a hold upon a cut-out section of some portion of the base of the article, or if none, tip it slightly and slip the iron thereunder. After a purchase has been obtained upon the article and that section raised slightly off the floor, with his free hand the operator rolls the hook end 25 of another castered truck thereunder. The operation is repeated for three corners of the article when it will be supported sufficiently rigid and to hold the last corner off the floor and a castered moving iron placed thereunder. Once the article is supported by the castered irons under each corner thereof it may be readily pushed and moved about the floor, and when in close quarters such as a hall or stairway the lateral handles 31, which would normally prevent convenient clearance space, may be swung down out of the way and passage effected.

In the carrying iron 35 shown in Fig. 6 there is shown a modified lifting hook and rotatable handle arrangement, otherwise the component parts are the same as the carrying iron shown in Figs. 4 and 5 and correspondingly numbered. In this instance the upright standard 36 has a foot end 37 welded thereto while a caster arrangement 23, swiveled by the horns 24, similar to that shown in Fig. 4, are braced by a diagonal member 39 welded to the caster support and the upright standard, thus making the device very rigid and self-standing as the previous construction. Upon the foot end 37 is a modified lifting hook arrangement 40 with an integral pad 41 which contacts the article to be lifted. At the opposite end of the upright standard 36 lateral bear-

ing arm **28** is welded normal thereto as in the previous construction. In this instance, however, the handle **43** is rotatably secured upon the upper end of the upright standard **36** by an integral hollow sleeve member **44** supported by a bearing ring **45** thereon and maintained in place by any suitable locking member **46**.

The use and operation of this portable castered moving iron **35** is similar to the previous device shown in Figs. 4 and 5 and may be used on either leg or flat cabinet base articles by a similar sequence of operations in raising the article from the floor and lowering it onto the bottom hook **40** of the iron placed thereunder. This lifting and moving iron is likewise sheathed in rubber upon all external surfaces to obviate damaging the finished surfaces of an article supported thereby.

From the foregoing disclosures it will be apparent there has been described a novel lifting and/or portable moving iron arranged to pick-up and move leg or flat cabinet base type articles without danger of marring the finished surface of the article, accomplishing among other things, the objects and advantages of the invention first enumerated. However, while there has been disclosed only specific embodiments of the invention, which are for purposes of illustration only, it is not intended to be limited thereby, as many formal changes and mechanical equivalents will present themselves in actual practice to those skilled in the art to which this invention relates, and it is intended to cover hereby all modifications fairly within the spirit and substance of this invention as defined by the scope of the following claims.

What I claim is:

1. A rubber sheathed carrying iron comprising an elongated bar having a foot disposed normal thereto at the lower end thereof, a bearing member extending normally from the top end of the bar on the same side as the foot, a second foot welded to the lower end of the bar normal thereto and to said first foot, and a hand hold member extending outwardly from the rear face of said bearing member in the opposite direction from said second foot and at right angles to said first foot.

2. A rubber sheathed carrying iron comprising an elongated bar having a foot disposed normal thereto at the lower end thereof, a bearing member extending normally from the top end of the bar on the same side as the foot, a second foot welded to the lower end of the bar normal thereto and to said first foot, a hand hold member extending outwardly from the rear face of said bearing member in the opposite direction from said second foot and at right angles to said first foot, and a second hand hold member welded to said elongated bar adjacent the foot end thereof and extending laterally therefrom upon the same side as said first hand hold member for obtaining a close coupled grip upon an article to be carried.

3. In a carrying iron, a metal bar formed to provide a hook at one end, a bearing member extending from the opposite end of the bar and on the same side as the hook, said bearing member having an arcuate face on one side arranged to engage the article being carried, a second hook welded to said bar adjacent said first hook but at a right angle thereto, a hand hold member extending from the opposite side of said bearing member and opposite to said second hook, and a continuous rubber sheath enveloping all parts of the carrying iron.

JOSEPH C. CHENETTE.