

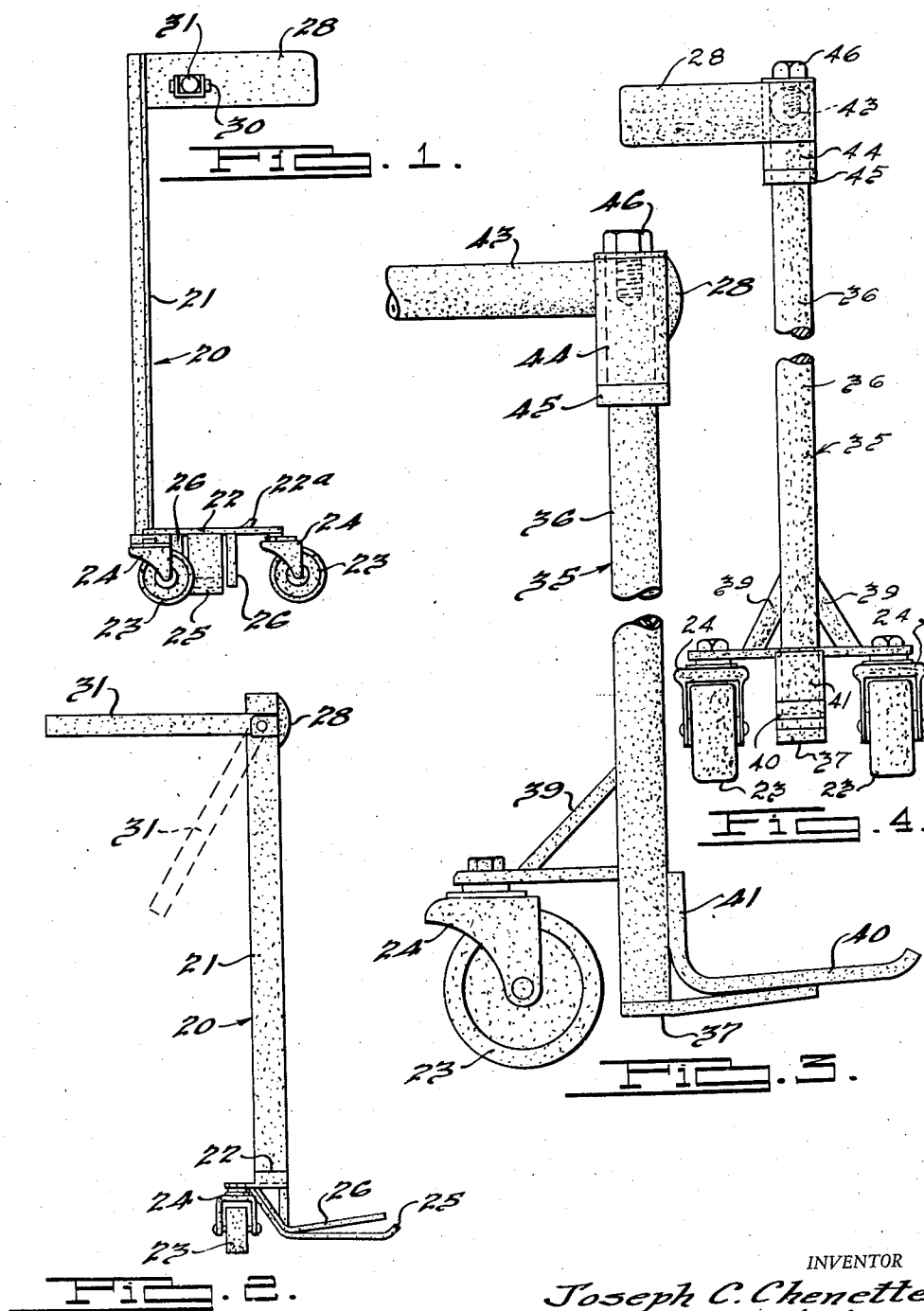
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LIFTING AND PORTABLE MOVING IRON

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LIFTING AND PORTABLE MOVING IRON

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5 Claims. (Cl. 280—61)

This invention relates to raising and transporting devices in general and more particularly, concerns carrying irons with 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 a 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 raised and rolled upon casters with ease. This application is a division of my co-pending application Serial No. 338,849, filed June 5, 1940, for Lifting and portable moving irons, now Patent No. 2,274,918 dated March 3, 1942.

Among the objects of the present invention is the provision of a completely rubber sheathed carrying iron which may be used for moving leg or cabinet base articles; the provision of a carrying 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 a carrying 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 quar-

ters; the provision in a 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:

Figs. 1 and 2 are two elevational views of a lifting and moving iron of one form the invention may assume, including casters and pivotal handle means adjacent the upper end thereof; and

Fig. 3 is an elevational view of a modified form of a lifting and moving iron having a single hook adjacent the lower end thereof and a rotatable handle upon the upper end thereof.

Fig. 4 is a second elevational view at slightly reduced scale of the modified lifting and moving iron shown in Fig. 3.

In the drawing the lifting iron shown in Figs. 1 and 2 incorporates the features and advantages of the device described in my identified co-pending application, 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 22a, 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 each 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 a total of four, of the portable moving irons drops into a slight depression along the carriage way the load would be supported by the other three irons at each corner of the load 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 my previous lifting iron constructions, 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 is as follows: 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. 3 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. 1 and 2 and correspondingly numbered. In this instance the upright standard 36 has a foot end 37 welded thereto, while a caster ar-

range 23, swiveled by the horns 24, similar to that shown in Fig. 1 is 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 a lateral bearing arm 28 is welded normal thereto, as in the previous construction, but on a separate hollow sleeve member 44. In this instance, however, the handle 43 is rotatably secured upon the upper end of the upright standard 36 by the 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. 1 and 2 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 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 mobile carrying iron comprising an elongated bar terminating at one extremity in a hooked end normal thereto, a bearing member having an arcuate outer face arranged to contact the article being carried welded to the opposite end of said bar, on the same lateral side thereof, as said hooked end, a hand hold member extending from the opposite face of said bearing member and at right angles to said hooked end, a second hook member fixed to said first hooked end but at a right angle thereto and extending oppositely to said hand hold, and an integral laterally offset portion upon said first hooked end arranged to swivelly mount a pair of spaced castered wheels whereby said elongated iron is self-standing and movable thereon.

2. A rubber sheathed mobile carrying iron comprising an elongated bar terminating at one extremity in a hooked end normal thereto, a bearing member having an arcuate outer face arranged to contact the article being carried welded to the opposite end of said bar, on the same lateral side thereof, as said hooked end, a hand hold member extending from the opposite face of said bearing member and at right angles to said hooked end, said hand hold member being movable from its right angle position into the plane of said elongated bar, a second hook member fixed to said

first hooked end but at a right angle thereto and extending oppositely to said hand hold, and an integral laterally offset portion upon said first hooked end arranged to swivelly mount a pair of spaced castered wheels whereby said elongated iron is self-standing and movable thereon.

3. A rubber sheathed mobile carrying iron comprising an elongated bar terminating at one extremity in a hooked end normal thereto, a bearing member having an arcuate outer face arranged to contact the article being carried welded to the opposite end of said bar, on the same lateral side thereof, as said hooked end, a hand hold member extending from the opposite face of said bearing member and at right angles to said hooked end, a second hooked end extending in depending relation and supported by said first hooked end intermediate the ends thereof and normal thereto, and an integral laterally offset portion of said first hooked end arranged to swivelly mount a pair of spaced caster wheels providing a balanced self-standing device mobile thereby.

4. A rubber sheathed mobile carrying iron comprising an elongated bar terminating at one extremity in a hooked end normal thereto, a bearing member having an arcuate outer face arranged to contact the article being carried welded to the opposite end of said bar, on the same lateral side thereof, as said hooked end, a hand hold member extending from the opposite face of said bearing

member and at right angles to said hooked end, a second hook member fixed to said first hooked end but at a right angle thereto and extending oppositely to said hand hold, said second hook member having upon one or more lateral sides thereof spring steel strips normally raised slightly from the plane thereof but adapted to be bent downward into said plane upon the application of a load onto said second hook, and an integral laterally offset portion upon said first hooked end arranged to swivelly mount a pair of spaced castered wheels whereby said elongated iron is self-standing and movable thereon.

5. A carrying iron for transporting leg or flat base articles comprising an elongated bar having a combination of hooks adjacent one end thereof and at right angles to each other, a bearing member and a hand hold member secured adjacent the opposite end of said bar disposed normal to each other and to said hooks and upon the opposite sides of the bar from said hooks, said hooks being at different levels with the lower one thereof adapted for positioning under flat base articles and the upper hook for use on leg type articles to be carried, and laterally offset swivelable caster means supported by said bar and upon the side thereof opposite from said hooks and bearing member whereby said carrying iron is self-standing and mobile.

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