Sept. 30, 1941. H. F. BAXTER ET AL 2,257,323

LAUNDRY METHOD AND DEVICE

Filed Dec. 20, 1939 3 Sheets-Sheet 1

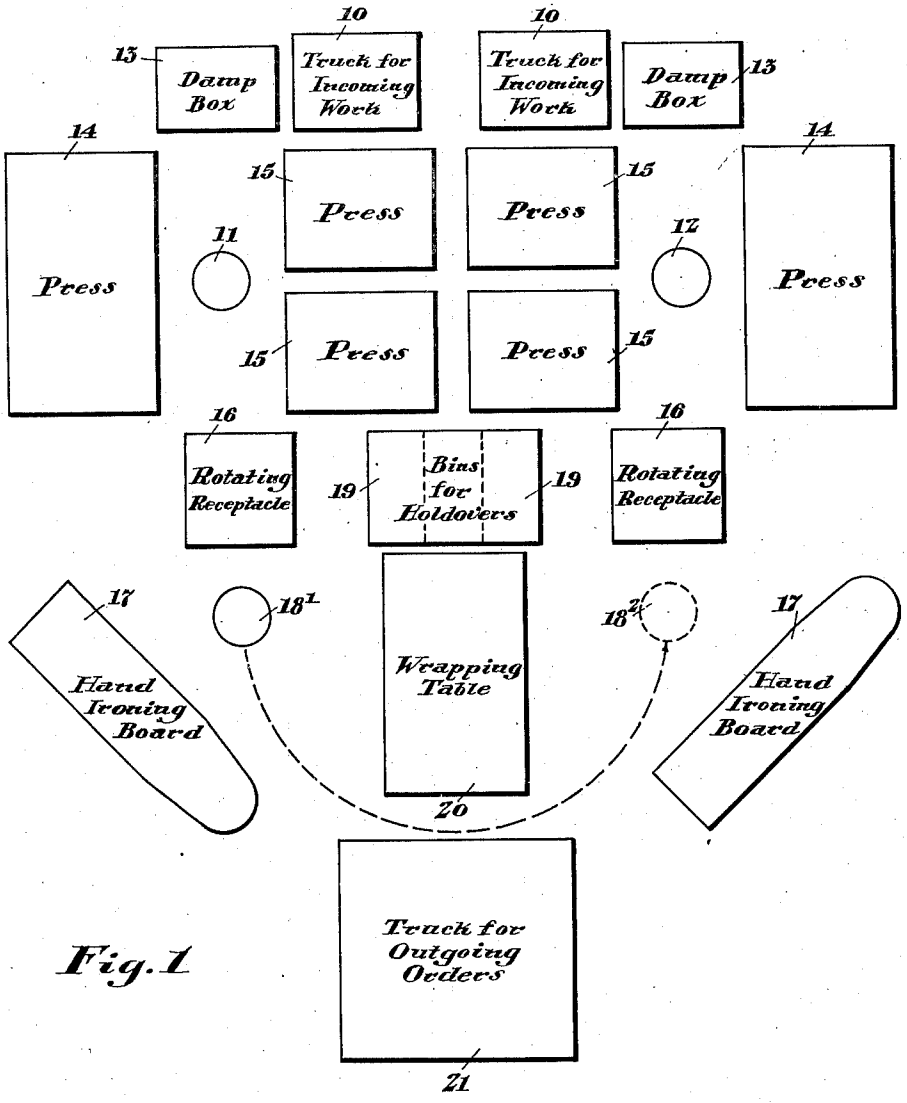


Fig. 1

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LAUNDRY METHOD AND DEVICE

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Fig. 2

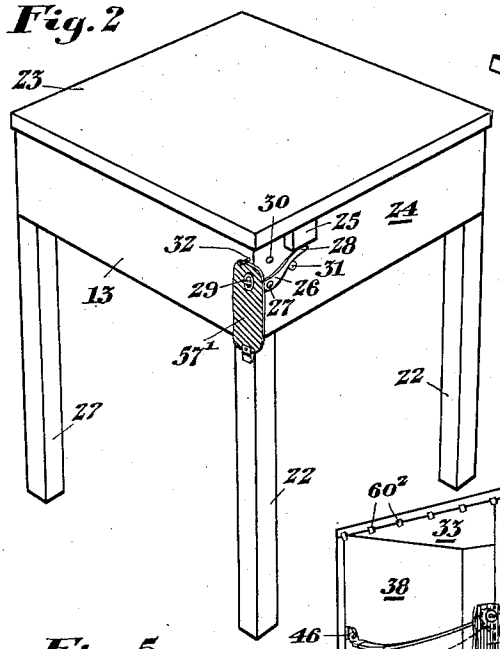


Fig. 3

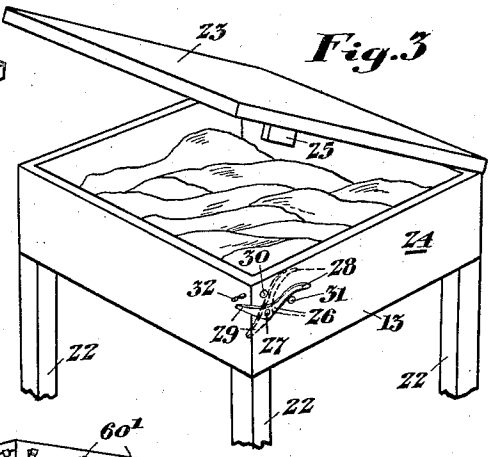


Fig. 4

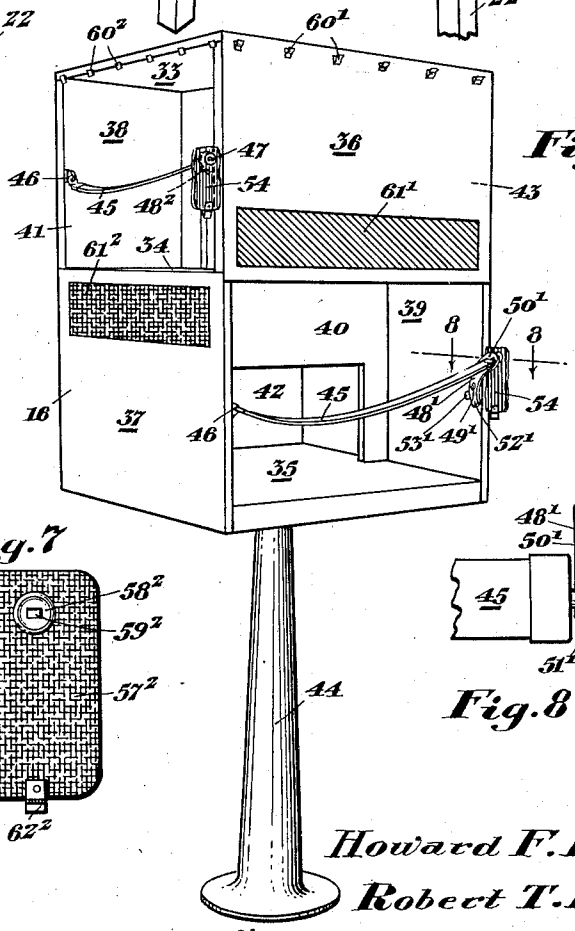


Fig. 5

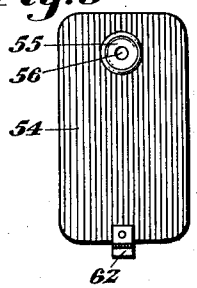


Fig. 6

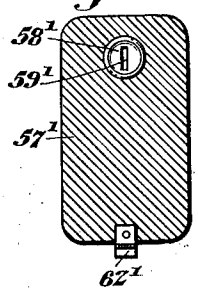


Fig. 7

Fig. 8

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LAUNDRY METHOD AND DEVICE

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Fig. 9

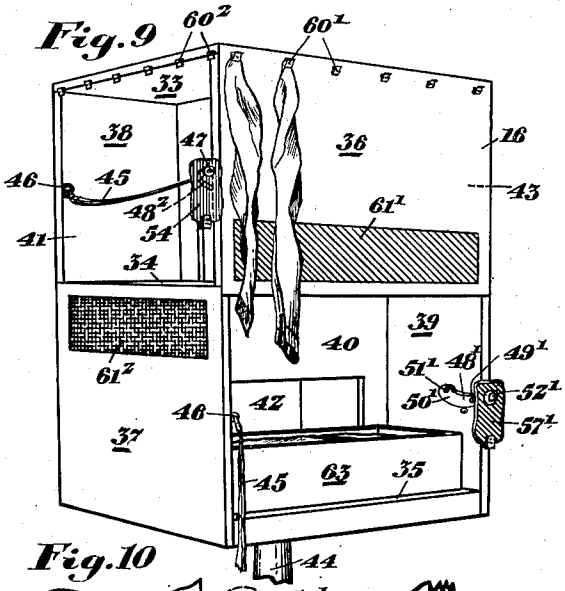


Fig. 14

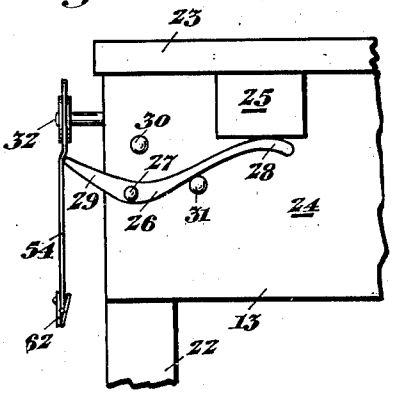


Fig. 10

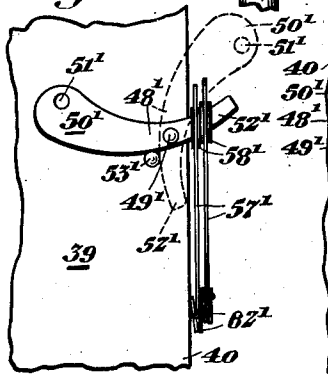


Fig. 11

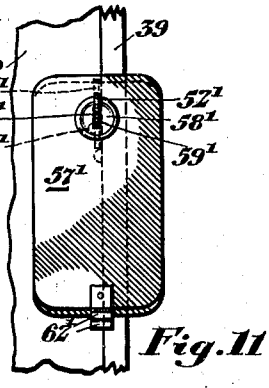


Fig. 12

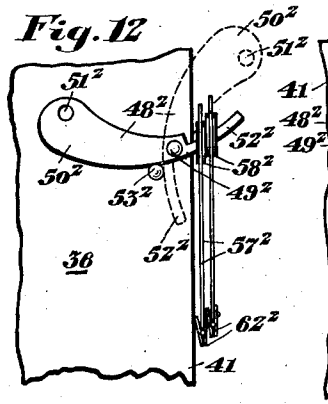
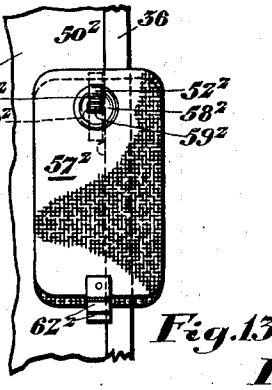


Fig. 13



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2,257,323

UNITED STATES PATENT OFFICE

2,257,323

LAUNDRY METHOD AND DEVICE

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Application December 20, 1939, Serial No. 310,110

8 Claims. (Cl. 312—157)

The present invention relates to laundry methods and devices and more particularly to methods and devices for segregating individual customer laundry orders from a number of other individual customer orders during the finishing processes of successive laundry orders. The present application is a continuation-in-part of our co-pending application, Serial No. 272,390, filed May 8, 1939.

Great losses are frequently sustained by laundries in making restitution for garments or other articles which inadvertently become mixed in with the wrong order. In addition to such monetary losses, the laundry is liable to loss of patronage, reputation and good will. It is therefore of utmost importance that the articles belonging to one customer be kept segregated from those belonging to other customers.

A number of identification methods have been employed in the past for keeping the orders thus segregated. For example, all of the articles belonging to one customer have been marked with a distinctive combination of letters and/or numbers in indelible ink. The disadvantages of this and similar methods lie in the facts that the markings sometimes disfigure the garments thus marked, sometimes such markings are faint or illegible which results in error, and the marking operation itself is expensive.

With the foregoing in view, the primary objects of the present invention are to provide a method of segregating each successive customer order during its finishing and packaging operations which method when employed in conjunction with certain known washing methods, precludes the possibility of mixing articles from one order with those of another order and which method likewise eliminates the necessity of individually marking the articles themselves; to provide such a method which virtually eliminates human forgetfulness and carelessness as factors to be reckoned with in keeping each order segregated; to provide such a method which results in speeding up the finishing and packaging of laundry; to provide such a method which minimizes handling of the finished articles; and, to provide such a method which is simple and economical.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a diagram of a convenient working arrangement for presses and other devices such as are used in a laundry in the finishing and packaging operations of laundry orders;

Fig. 2 is a perspective view of a damp-box and an identification tag associated therewith, said tag being lined to represent the color green;

Figure 3 is a fragmentary view thereof showing certain parts of the damp-box in different positions;

Figure 4 is a perspective view of a rotating multi-compartment receptacle and devices associated therewith, certain parts being lined to represent the colors red, yellow and green;

Figure 5 is an elevational view of a signal tag lined to represent the color red;

Figure 6 is an elevational view of a primary identification tag lined to represent the color green;

Figure 7 is an elevational view of a secondary identification tag lined to represent the color yellow;

Figure 8 is an enlarged fragmentary sectional view on line 8—8 of Figure 4;

Figure 9 is a fragmentary perspective view similar to Figure 4 but showing other articles associated with the receptacle;

Figure 10 is an enlarged fragmentary side elevational view of a swing lever and identification tags associated with one of the compartments of the receptacle;

Figure 11 is a front elevational view of the same;

Figure 12 is an enlarged fragmentary side elevational view of a swing lever and identification tags associated with another of the compartments of the receptacle;

Figure 13 is a front elevational view of the same; and

Figure 14 is a fragmentary side elevational view of the damp-box.

Referring to these drawings wherein like parts of the devices used are designated by the same numerals in the several views, and referring first to Figure 1 which diagrammatically shows a convenient working arrangement for presses and the like used in the finishing and packaging operations of a laundry, incoming trucks 10 supply work from the washing unit to the finishing unit. Inasmuch as the present invention does not pertain to the washing phase of an order, it will suffice to mention that each customer order is washed independently of other orders and preferably in a confining net which is dumped into a truck 10 for delivery to the finishing unit. Hence, in the washing operation, there is little or no likelihood that the several orders will become mixed.

The finishing unit here illustrated is in many respects a double unit, there being two machine-

press operators whose positions are indicated at 11, 12 and each of whom is provided with a damp-box 13, a large press 14, two small presses 15 of the mushroom type, and a rotating multi-compartment receptacle 16.

There are likewise two hand-ironing boards 17 and equipment therefor, but inasmuch as it is ordinarily possible for one hand-ironer to perform the hand-ironing of a given order within one-half the time required for one machine-presser to do the machine-pressing for the same order, only one hand-iron operator is indicated whose position may be 18^1 or 18^2. It will be noted that each rotating receptacle 16 is placed between a machine-pressing and a hand-ironing position and suitable bins 19 for holdover orders, a wrapping table 20 and a truck 21 for finished and packaged orders are placed in positions accessible to the hand-ironer.

Referring now to Figures 2 and 3, the damp-box 13 there shown is supported on legs 22 and is provided with a horizontally hinged lid 23 which overhangs a side rail 24 of the damp-box. A block 25 secured to the underside of the lid 23 lies flush against the outer surface of the side rail 24 when the lid 23 is in its closed position as shown in Figure 2.

A lever 26, pivotally mounted at 27 on the side rail 24 of the damp-box 13, has an arm 28 extending rearwardly beneath the block 25 when the lid 23 is in its closed position and has an arm 29 projecting forwardly a slight distance beyond the damp-box 13, said arm 29 being upwardly inclined when the lever is in its normal position as shown in Figures 2 and 14 and as is shown in full lines in Figure 3.

Rubber stops 30, 31 secured to the side rail 24 limit the turning movement of the lever 26 in its opposite directions and a stud fastener 32, securely fixed to the front of the damp-box 13, projects forwardly therefrom above and in proximity to the arm 29 of lever 26.

The receptacle 16 is of the type disclosed in our co-pending application heretofore identified and as here shown comprises a top shelf 33, middle shelf 34, bottom 35, and sides 36, 37, 38, 39, the openings in which give access to compartments 40, 41, 42 and 43 respectively, this entire structure being rotatably mounted upon a pedestal 44 in the manner disclosed in our co-pending application above referred to.

Each compartment 40, 41, 42 and 43 is provided with a member, here shown as a flexible strap 45 swingably mounted at one side of its compartment to a side of the receptacle as at 46. The free end of each strap member is fitted with a stud fastener 47, best seen in Figure 8, this stud fastener 47 being similar to the stud fastener 32 on the damp-box 13.

The compartments 40 and 42 which are on opposite sides of the receptacle 16, are each provided with a swing member 48^1 pivotally mounted at 49^1 on the side of the receptacle opposite the mounting 46 of the strap member 45 for said compartment. Each swing member 48^1 comprises a latch arm 50^1 having an aperture 51^1 therethrough and a hook arm 52^1 here shown as vertically elongated in cross-section, each swing member 48^1 being turnable to present for use one or the other only of its said arms 50^1, 52^1. In other words, when the latch arm 50^1 projects forwardly beyond the side of the receptacle on which the swing member 48^1 is pivotally mounted as shown in dotted lines in Figure 10, the hook arm 52^1 is in a position of non-use. Conversely when the hook arm 52^1 is in its use position shown in full lines in Figure 10, the latch arm 50^1 is in a position of non-use. Rubber stops 53^1 secured to the sides of the receptacle limit the turning movement of the swing members 48^1 in either direction.

The intervening oppositely disposed compartments 41 and 43 of the receptacle 16 are each provided with a swing member 48^2 pivotally mounted at 49^2 on the side of the receptacle opposite the mounting 46 of the closure member 45 for said compartment as shown in Figure 12. These swing members 48^2 are similar to the swing members 48^1, each swing lever 48^2 being provided with a latch arm 50^2 having an aperture 51^2 therethrough and with a hook arm 52 here shown as horizontally elongated in cross-section, each swing member 48^2 being turnable to present for use one or the other only of its arms 50^2, 52^2. Rubber stops 53^2 secured to the sides of the receptacle limit the turning movement of the swing members 48^2 in either direction.

Four red signal tags 54, like that shown in Figure 5, are provided, one for each of the compartments 40, 41, 42 and 43. Each signal tag 54 is provided with a grommet 55 whose opening 56 is in the form of a snap fastener cooperable with either the stud fastener 32 on the damp-box 13 or with the stud fastener 47 on a strap member 45. The strap members 45 are releasably secured in their closing positions seen in Figure 4 by first turning the swing members 48^1, 48^2 so that their latch arms 50^1, 50^2 are in their use positions, then passing the stud fasteners 47 on the closure members 45 through the apertures 51^1, 51^2 in said latch arms 50^1, 50^2, and finally affixing a signal tag 54 on the end of each stud fastener 47. The signal tags 54 are not adapted for attachment to the hook arms 52^1, 52^2 of the swing members 48^1, 48^2.

A pair of primary identification tags 57^1, here shown as green in color, are each provided with a grommet 58^1 having a vertically elongated slot 59^1 therethrough adapted for detachable engagement with the hook arms 52^1 of swing members 48^1 as shown in Figures 10, 11. A pair of secondary identification tags 57^2 here shown as yellow in color, are each provided with a grommet 58^2 having a horizontally elongated slot 59^2 therethrough adapted for detachable engagement with the hook arms 52^2 of swing levers 48^2 as shown in Figures 12, 13.

The identification tags 57^1 are not adapted for attachment to the hook arms 52^2 of swing members 48^2, and the identification tags 57^2 are not adapted for attachment to the hook arms 52^1 of swing members 48^1. Both sets of identification tags 57^1, 57^2 are however adapted for attachment to the arm 29 of the lever 26 on the damp-box 13.

While there are here shown but two each of the green and yellow identification tags 57^1, 57^2 respectively, it is intended that there be one less identification tag of each color than there are machine-presses available to a machine-press operator. For example, there are three presses 14, 15, 15 available to the machine-press operator 11 as indicated in Figure 1; hence, that operator is provided with two green identification tags 57^1 and two yellow identification tags 57^2.

The sides 36, 38 of the receptacle 16 through which the compartments 40, 42 are accessible, are each provided with spring clips 60^1 for a purpose hereinafter explained, and each of said sides 36, 38 has a green field 61^1 painted thereon in conformity with the green identification tags which are receivable on the members 48^1 of said com-

partments 40, 42. Similarly the sides 37, 39 of the receptacle are each provided with spring clips 60^2 and with a yellow field 61^2 painted thereon.

Spring clips 62, 62^1 and 62^2 are secured to the red signal tags 54, green identification tags 57^1 and yellow identification tags 57^2 respectively, said spring clips adapting these tags for removable attachment to the articles being finished.

It will be understood that the colors red, green and yellow here indicated for the signal tags 54 and identification tags 57^1, 57^2 are illustrative only.

Operation

At the beginning of a working day each machine-press operator has available two green identification tags 57^1 and two yellow identification tags 57^2. Each rotating receptacle 16 has all of its strap members 45 secured in closing position by means of red signal tags 54 as shown in Figure 4.

The operator selects, for example, the green identification tags 57^1 for use with the first order, and turns the receptacle 16 to a position in which a green side thereof (e. g. side 36) faces her and the empty compartment 40 is accessible to her.

The operator then places the first order in her damp-box 13, placing the yellow identification tags 57^2 on the net containing the next order in the incoming truck 10. She then selects from the damp-box 13 the first article to be pressed, attaches a green identification tag 57^1 to the article and places the article in a machine-press. While doing this, there is only one suitable place where she may hang the second green identification tag 57^1, this being on the arm 29 of lever 26 on the damp-box 13, the cover of the damp-box being closed in order to so hang the second tag 57^1 on the lever 26.

When the operator has finished placing the first article in a machine press, she returns to the damp-box 13, takes the second green identification tag 57^1 off the lever 26 which she must do before opening the damp-box otherwise the weight of this tag 57^1 will turn the lever 26 causing this tag 57^1 to fall to the floor.

The damp-box 13 is then opened by the operator who selects a second article for pressing and who attaches the second green identification tag 57^1 to said second article, placing this article in a machine-press. After selecting a third article and placing the same in the third machine-press, the presses all remain full except for exchanging articles therein throughout the working day thus increasing efficiency of the finishing unit.

Upon removing the first article of the order from the press, the operator removes the red signal tag 54 from the compartment 40 thus releasing the strap member 45 of said compartment 40. The operator then places a laundry container 63 in the compartment and the finished first article in the container, next turns the swing member 48^1 of said compartment, then hangs the green identification tag 57^1 from the first article on the hook arm 52^1 of said swing member 48^1, and finally hangs the red signal tag 54 on the stud fastener 32 on the dampbox 13, all as best seen in Figures 9, 10, 11 and 14. Since the red signal tag 54 now conceals the arm 29 of lever 26 on the damp-box, none of the identification tags may inadvertently be placed on said arm 29 as long as the signal tag 54 is on the damp-box.

The operator next removes the second article from the press, places it in the finished laundry container 63 and removes the second green identification tag 57^1 therefrom, hanging said tag on the hook arm 52^1 of member 48^1 over the first green tag as shown in Figures 10 and 11. The operator next removes the remaining articles of the first order from the damp-box one by one, machine-pressing those articles which are suitable for machine-pressing, placing the pressed articles in the laundry container 63. When the last article in the damp-box 13 is withdrawn, the operator removes the red signal tag therefrom, attaches the same to said last article and places the article in a machine-press. Those articles in the damp-box which require hand-ironing are suspended from the spring clips 60^1 associated with the compartment 40.

The operator then takes up the next customer order, attaching the yellow identification tags 57^2 to the first two articles in said second order in a manner similar to that followed when attaching the green identification tags. It will thus be seen that in proceeding forthwith from the first order to the second order, all of the presses are kept busy, yet there is no danger of mixing the several orders since the absence of any tag or the presence of the red signal tag on the last article of the first order distinguishes those articles from the first two articles of the succeeding order which bear yellow identification tags.

When the operator removes the last article of the first order from the press, she removes the red signal tag 54 therefrom, then places the article in the laundry container and finally closes out the order by attaching the strap member 45 to the latch arm 50^1 of the swing member 48^1 by means of the red signal tag, at which time she must remove the green identification tags 57^1 from the hook arm 52^1 of lever 48^1 or these tags 57^1 will drop to the floor when the lever 48^1 is turned. Said green identification tags 57^1 are then placed on the net in the incoming truck holding the third order, for future use in placing the third order in the compartment 42 opposite the compartment 40.

It will be noted that the operator must rotate the receptacle 16 to make available to her a compartment whose hook arm 52^2 is adapted to receive the yellow identification tags 57^2 of the second order, thus making it impossible for her to place two orders in the same compartment.

When the rotating receptacle 16 is turned to present the compartment 40 to the hand-ironer, the hand operator detaches the strap member 45 of the compartment 40, irons the articles attached to the spring clips 60^1 and places them in the container. This container is then removed and placed on the truck 21 carrying completed outgoing orders.

It is the duty of the machine-presser to rotate the receptacle 16 when she requires an empty compartment. Such rotation might take place before the hand-ironer has finished the order she is working on, but it will be seen that the detached position of the strap member 45 on the compartment 40 indicates to the hand-ironer which order and which compartment she is working on regardless of the moved position of the receptacle 16.

It will thus be seen that the present invention provides a convenient method and simple and inexpensive devices for segregating individual orders during the finishing and packaging operations. The method herein shown and described speeds up production and minimizes handling of

the finished articles since the articles are transferred directly from the presses to the laundry container.

While but one specific embodiment of the invention has been herein shown and described, it will be understood that certain steps in the performance of the method may be rearranged or omitted and that equivalent devices may be substituted for the devices shown without departing from the spirit of the invention as the same is defined by the following claims.

We claim:

1. A rotatable receptacle having a plurality of compartments therein each accessible from a different side of the receptacle, a hook arm secured to each compartment and having a different formation from the hook arms of the adjacent compartments, each hook arm being thus adapted to detachably retain an identification tag of a different formation and characteristic from the identification tags detachably retainable on the hook arms of the adjacent compartments.

2. A rotatable receptacle having a plurality of compartments therein each accessible from a different side of the receptacle, a strap member swingably secured to each compartment at one side thereof, a swing member pivotally mounted on the opposite side of each compartment, each swing member having a latch arm and a hook arm and each swing member being turnable to present for use one or the other only of said arms, the latch arm of each swing member being adapted to detachably receive the free end of a strap member and the hook arm of each swing member being adapted to detachably retain an identification tag of a character different from the identification tags detachably retainable on the hook arms of the adjacent compartments.

3. A rotatable receptacle having a plurality of compartments therein each accessible from a different side of the receptacle, a strap member swingably secured to each compartment at one side thereof and provided at its free end with fastening means, a latch arm mounted on the opposite side of each compartment and adapted to receive the free end of a strap member which may be detachably secured thereto by means of a signal tag having fastening means thereon cooperable with the fastening means on said strap member.

4. A rotatable receptacle having a plurality of compartments therein each accessible from a different side of the receptacle, a strap member swingably secured to each compartment at one side thereof and provided at its free end with fastening means, a swing member pivotally mounted on the opposite side of each compartment, each swing member having a latch arm and a hook arm and each swing member being turnable to present for use one or the other only of said arms, the latch arm of each swing member being adapted to receive the free end of a strap member which may be detachably secured thereto by means of a signal tag having fastening means thereon cooperable with the fastening means on said strap member, and the hook arm of each swing member being adapted to detachably retain an identification tag of a character different from the identification tags detachably retainable on the hook arms of the adjacent compartments and of a different characteristic from said signal tag.

5. A rotatable receptacle having a plurality of compartments therein each accessible from a different side of the receptacle, a strap member swingably secured to each compartment at one side thereof and provided at its free end with fastening means, a swing member pivotally mounted on the opposite side of each compartment, each swing member having a latch arm and a hook arm and each swing member being turnable to present for use one or the other only of said arms, the latch arm of each swing member being adapted to receive the free end of a strap member which may be detachably secured thereto by means of a signal tag having fastening means thereon cooperable with the fastening means on said strap member, and the hook arm of each swing member having a different formation from the hook arms of the adjacent compartments, each hook arm being thus adapted to detachably retain an identification tag of a different formation and characteristic from the identification tags detachably retainable on the hook arms of the adjacent compartments and of a different formation and characteristic from said signal tag.

6. A rotatable receptacle having a plurality of compartments therein each accessible from a different side of the receptacle, a strap member swingably secured to each compartment at one side thereof and provided at its free end with fastening means, a swing member pivotally mounted on the opposite side of each compartment, each swing member having a latch arm and a hook arm and each swing member being turnable to present for use one or the other only of said arms, the latch arm of each swing member being adapted to receive the free end of a strap member which may be detachably secured thereto by means of a signal tag having fastening means thereon cooperable with the fastening means on said strap member, and the hook arm of each swing member being adapted to detachably retain an identification tag of a different color from the identification tags detachably retainable on the hook arms of the adjacent compartments, the sides of the receptacle being colored to correspond to the identification tags which may be associated with the compartments accessible therethrough, and the signal tag being of a third color.

7. A rotatable receptacle having a compartment therein, a strap member swingably secured to the compartment at one side thereof, a swing member pivotally mounted on the opposite side of the compartment having a latch arm and a hook arm turnable to present for use one or the other of said arms, the latch arm being adapted to detachably receive the free end of the strap member and the hook arm being adapted to detachably retain an identification tag.

8. A rotatable receptacle having a compartment therein, a strap member swingably secured to the compartment at one side thereof and provided at its free end with fastening means, a swing member pivotally mounted on the opposite side of the compartment having a latch arm and a hook arm turnable to present for use one or the other of said arms, the latch arm being adapted to detachably receive the free end of the strap member which may be detachably secured thereto by means of a signal tag having fastening means thereon cooperable with the fastening means on the strap member, the hook arm being adapted to detachably retain an identification tag.

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