ARTICLE BUFFING APPARATUS

This invention relates to improvements in the buffing of articles and, more particularly, to buffing apparatus which provides a buffing action to articles of different types in a minimum of time and without operator attention.

BACKGROUND OF THE INVENTION

It is well known that shoes are generally shined by brushing them by hand with a bristle brush or buffing them with a cloth of a suitable buffing material. This requires a considerable amount of energy and time for busy people who consider this an inconvenience, especially if they have other things to accomplish in a given day. Moreover, to hold a shoe in one hand while the shoe is being brushed by a brush in the other hand causes both hands to become soiled or dirty, requiring that the hands be washed immediately afterwards. Buffing a shoe with a buffing cloth requires the shoe to be worn or to be mounted on a fixed support. It is no wonder that shining of shoes is simply a job which is put off for much too long a time. Eventually, the appearance of the person wearing the shoes suffers and requires some sort of immediate action which the wearer does not wish to do. While it is possible to get shoe shines at a shoe shine stand, these are found only at locations in a commercial area, such as in a downtown area or at an airport. A professional shoe shine costs money and takes time because the shoes typically remain on the feet of the wearer while being shined. This also is time consuming and an inconvenience which is to be avoided generally.

Because of these drawbacks, a need has arisen for improvements in the buffing of articles, such as shoes and goods of various types.

SUMMARY OF THE INVENTION

This present invention satisfies the aforesaid need by providing an improved buffing apparatus which is simple in construction. Moreover, the apparatus of the invention permits the buffing of articles of different types without operator attention. Thus, during the buffing operation, the user can turn his attention to other tasks and need not be present while the buffing action is taking place.

The apparatus of the present invention comprises a container, for receiving an article to be buffed, adapted to be placed in a shiftable bin and moved about relative to predetermined references as the bin is shifted, a flexible bag of buffing material, for placement into the container, adapted to receive the article to be buffed and a buffing element, the bag, the article and the element being movable within and relative to the container, said buffing element having a buffing material thereon frictionally engageable with the article in the bag and the latter being of a size to permit the article therein to move relative to the buffing element and the bag as the container is moved relative to said reference.

In accordance with a further aspect the invention provides buffing apparatus comprising a container; a flexible bag for placement in the container and adapted for receiving an article capable of being buffed, said container having means for mounting the container in a shiftable bin for movement relative to a predetermined reference as the bin is shifted, there being a flexible, hollow element for placement in the bag and having a buffing surface engageable with the article in the bag, said element adapted to receive and contain a weight material, said container being of a size to permit the bag, the element and the article to move relative to the container as the container is moved relative to said reference.

In one embodiment of the invention the or each buffing element has an outer surface provided with a buffing material thereon, and the bag is of a sufficient size to allow relative movement between the buffing element and the article to be buffed as the container itself moves about. The relative movements of the element and the article cause the buffing material of the element to shine the article in a minimum of time. During this time, the container is being moved about continuously and without the need for user attention. Thus, the user can turn his attention to other tasks and not need to be present during the buffing operation.

In the buffing of a pair of shoes, for instance, each shoe is prepared for buffing by applying a polish or wax to it. Then, the shoe is inserted into a bag with one or more buffing elements. The polish or wax may be omitted, if desired. Usually only a single shoe is placed in the bag although a pair of shoes can be placed in the same bag if the bag is large enough. In the alternative, two such bags can be used in the container for a pair of shoes, assuming the container is large enough to accommodate both bags.

Once the movement of the container starts, the user can walk away from the buffing location and do other things. Usually in 5 to 15 minutes, a shoe or pair of shoes will be properly buffed to provide a high gloss to the surfaces of the shoes.

Various other features of the preferred apparatus include the use of weights in the container to effectively cause a higher degree of frictional engagement between the buffing material and the article to be buffed. This feature assures the proper amount of buffing action for a particular article. Moreover, the container itself can be moved about randomly within a shiftable bin such as a rotary bin as the bin rotates. In the alternative, the container can be held in fixed position in a shiftable bin with the container spaced inwardly from or against the inner periphery of the bin, depending upon the way in which it is desired that the container be moved about in buffing the articles in the container.

Another feature of the preferred apparatus is the provision of a shiftable bin that is coin actuated so that the bin and the container can be placed in a commercial establishment for shining of shoes. This feature does not require any operator attention, and customers can shine their shoes quickly and easily without doing anything more than taking off their shoes

and placing them into the container and into the shiftable bin and then actuating the bin.

Details of the above described applications and other applications of the apparatus according to the invention will become apparent as the following specification progresses, reference being had to the accompanying drawings for an illustration of the invention. Reference is also made to our copending application 8913653.5, divided from this application, which discloses a method for buffing articles.

In the Drawings:

Fig. 1 is a vertical section through a container having a bag containing a shoe to be buffed and a number of buffing elements and forming one embodiment of the present invention;

Fig. 2 is a cross-sectional view of a bag usable with the container of Fig. 1;

Fig. 2a is a wide elevational view, partly in section, of one of the buffing elements for insertion in the bag of Fig. 2;

Fig. 3 is a fragmentary, front elevational view of a rotary bin, such as a conventional rotary clothes dryer, for receiving the container of Fig. 1;

Fig. 4 is a view similar to Fig. 3 but showing the way in which a container, such as the container of Fig. 1, can be held in a rotary bin, such as the rotary drum of a conventional clothes dryer;

Fig. 5 is a vertical section through a shoe having a shoe tree provided with weights, the shoe being of the type for insertion into the containers of Fig. 1;

Fig. 6 is a view similar to Fig. 7 but showing a pair of shoes coupled together for placement in the container;

Figs. 7 and 8 are perspective views of buffing elements which can be placed in the bag to increase the buffing action on a shoe as the container is shifted about;

Fig. 9 is a view similar to Figs. 3 and 4 but showing the way in which the drum of a rotary clothes dryer can be provided with an inflatable element to cover the inner peripheral projections thereof;

Fig. 10 is a view similar to Fig. 9 showing the rotary drum without the inflatable member;

Fig. 11 is a schematic, side elevational view of a shiftable bin held by a pair of end braces in the bin;

Fig. 12 is a view similar to Figs. 1, 3, 9 and 10 but showing a container placed against the inner periphery of a rotary bin;

Fig. 13 is a perspective view of a coin operated rotary drive apparatus for use in commercial establishments for buffing shoes and other articles;

Fig. 14 is a view similar to Figs. 3 and 4 but showing a triangularly shaped container held in a rotary bin by suction cups;

Fig. 15 is a cross-sectional view of a flexible bag for placement into the container of Fig. 14 and for receiving an article to be buffed and a buffing member;

Fig. 16 is a perspective view of the container of Fig. 14;

Fig. 17 is a side elevational view of one of the suction cups of Fig. 14, and

Fig. 18 is a fragmentary, cross-sectional view of the container of Fig. 14, showing the way in which a suction cup is coupled thereto.

Examples of the buffing apparatus of the present invention will be described with respect to the buffing of shoes. However, it is understood that the apparatus is suitable for buffing other articles as well.

A first embodiment of the buffing apparatus of the present invention is broadly denoted by the numeral 10 and includes a container 12 having a side wall 14, a bottom wall 16, and a lid 18 comprised of a pair of hinged lid members 20 and 22 hingedly coupled to the upper margin of side wall 14. Container 12 can be of any shape; typically side wall 14 is cylindrical so as to present a circular bottom wall 16 and a circular lid 18. The lid can be kept closed by a fastener device 24 of any suitable construction, such as one made of Velcro (RTM) material.

The article to be buffed is placed in a flexible bag 26 having an open top 28 (Fig. 2) and a draw string 30 removably closes the open top in the manner shown in Fig. 1. For purposes of illustration, bag 26 can be a fabric material. The bag is larger in size than the shoe.

The bag can contain one or more buffing elements 34. If more than one element is used, the elements are generally of the same size and construction, although they could differ from each other, if desired. Each buffing element 34 is shown in

more detail in Fig. 2a. It includes a hollow body 36 made of a flexible material, such as rubber, which has stopper means for holding a material, solid or liquid therein. For purposes of illustration, element 34 has a neck 38 through which a fluid, such as air or water, can be directed. A stopper 40 is removably coupled to neck 38 to close body 36 to retain the fluid therewithin. Other forms of stopper means can be provided, if desired.

A layer 42 of buffing material is on the outer surface of body 36. The outer surface of layer 42 is of a material suitable for buffing shoe 32 when container 12 is placed in a rotary bin and rotated in a manner to be described. The material suitable for layer 42 can be the usual cloth or fabric material used for shining shoes. It can have a pile or mat on a fabric base or it can have bristles as is well known in materials for shining shoes. The material used in conventional panty hose is also suitable for this purpose. The layer 42 is loosely placed over body 36 or is secured in any suitable manner, such as by an adhesive, to body 36. Body 36 will generally have a specific size and outer surface area so that it will properly buff the outer surface of the shoe to make the shoe surface shine to a high gloss.

In use, a shoe to be buffed is first placed in bag 26, following which one or more elements 34 are also placed in the bag. A polish or wax may be applied to the shoe, if desired. For purposes of illustration, four elements 34 are shown as being used in Figs. 1 and 2. The size of the bag is such that it allows substantially free relative movement between elements 34 and the shoe 32 so that elements 34 can move about and buff different portions of the shoe simultaneously and in a random fashion. When, the drawstring 30 is pulled to close the open top 28 of bag 26, the bag is then ready

to be placed in container 12 for tumbling or spinning in a rotary bin.

After bag 26 has been placed in the container, the lid of the container is closed and releasably held as shown in dashed lines in Fig. 1. Then the container is placed in a shiftable bin, such as in the drum 44 of a conventional rotary clothes dryer 46 (Fig. 3) having a front opening 48 and a door 50 hingedly mounted on the front wall 52 of the dryer. Fig. 3 shows container 12 in rotor 44 before door 50 has been closed and before the start of rotation of the drum 44 about its rotational axis 54.

After the door 50 has been closed, the clothes dryer is actuated to cause rotation of the drum 44 about axis 54. Container 12 will freely tumble about within the drum and, as it does, the bag 26 will move randomly about within the container. As the bag moves within the container, elements 34 are caused to move relative to the shoe which also moves relative to and within the bag. As a result the shoe will be buffed by the buffing elements at all locations on the outer surface portions of the shoe. The shoe will be shined to a high gloss condition, such as after a certain period of time, such as 5 to 10 minutes of rotation of drum 44.

After a predetermined time period of rotation of drum 44, the rotation is stopped and the container is removed from drum 44, whereupon the container is opened and the bag 26 is removed. The shoe can be removed from the bag and replaced by another shoe for buffing.

While a single shoe has been shown as being contained in the bag 26, the bag can be large enough so that it will accommodate two shoes for simultaneous buffing by one or more elements 34. Moreover, the inner surface of the bag 26 can be provided with a buffing material so that, when the shoe contacts such

inner surface of the bag, it will be buffed by the bag as well as by elements 34; thus, the bag and the elements will cooperate with each other during the buffing operation.

Elements 34 provide a certain amount of weight, especially if the elements contain a weight such as water or buckshot, to assure that there will be sufficient frictional engagement between the elements and the shoe to be buffed. Thus, with the added weight provided by elements 34, the outer surface of the shoe can be properly buffed so as to provide an attractive shine for the shoe when the shoe is removed from bag 26.

While many different types of leather articles can be buffed by unit 10, metallic articles, such as articles of silverware, can also be buffed by unit 10. Thus, the invention is not limited to shoes, although it is especially suitable for buffing shoes.

A typical length of container 12 is 24 to 27 inches, and a typical diameter of the container is 12 to 14 inches. These dimensions will give adequate space in the container to allow bag 26 to move about in the container as the container is rotated by drum 44. Moreover in bag 26, shoe 32 moves constantly into different orientations. Typically, it will remain in a position extending longitudinally of the bag. It will, however, tend to rotate longitudinally within the bag. As it does, the various outer surface portions of the shoe are contacted many times by the outer surfaces of each element 34, thus causing a frictional engagement between the shoe and the element which causes the outer surface of the shoe to be buffed and thereby shined.

In use the container 12 is loosely placed in a shiftable bin, such as drum 44 of rotary clothes dryer 45 (Fig. 3). When the drum is rotated about its central axis 54, the container is caused to tumble about within the drum and, as it does, shoe 80 moves freely about in the bag and frictionally engages the buffing material used in the bag's construction.

It may be desirable or deemed necessary to add weight to the shoe 80 to provide a greater frictional engagement of the shoe and buffing material and thereby a more effective buffing action. This will reduce the time durirg which container 12 is rotated by drum 44 to provide a desirec shine on shoe 80. To this

end, shoe 80 can, as shown in Fig. 5, be provided with a shoe tree 83 to add weight to the shoe itself. If additional weight is required, individual weights 85 (Fig. 5) can be added to the shoe tree 83 in any suitable manner. In the alternative, the shoe tree itself can be removed and the weights placed in the shoe and held therein in any suitable manner, such as by a masking tape or other fastener means.

Fig. 6 shows a pair of shoes 80 which are coupled together by a bracket 87 and held in sole-to-heel relationship. Then, both shoes, when coupled together, can be placed in the bag 26 in container 12 and remain coupled together as the shoes move about and as the container 12 tumbles in drum 60. Generally, weight is not needed to be added to either shoe if they are coupled together in this manner because the combined weight of the shoes is sufficient to provide a good buffing action in a minimum of time.

It may be desirable to add one or more buffing elements to bag 26 to increase the buffing action on shoe 80. These buffing elements are movable randomly in the bag and can be of different sizes and shapes. Fig. 7 shows a ball-shaped buffing element 87 having an outer surface 89 provided with a buffing material, such as one having bristles. The interior of element 86 may be hollow and provided with lead shot, water or other weight therein to provide a more effective buffing action on the shoe.

Fig. 8 shows a buffing element 91 which is in the form of a rectangular pad which is generally flexible so that it can conform to the surface of a shoe when it is adjacent to the shoe in the bag 26 during tumbling of the bag within container 12. Typically, there can be one or several ball-shaped elements 87 and/or one or several pad-shaped elements 91 in bag 26 along with shoe 80.

Fig. 4 shows container 12 held by a spring-biased strut 63 in drum 44 so that the container is against the inner periphery of drum 44 at all times during rotation of the drum. This will assure that the article in the bag 26 to be buffed will move along a circular path about the central axis 54 of the drum and thereby caused to roll and tumble about in the bag 26 in a manner designed to cause the desired buffing action in a minimum of time.

Fig. 9 shows container 12 within drum 44 when the drum has an inflatable member 65 therewithin for covering the inner peripheral projections 67 normally found on the drum of a clothes dryer. The use of member 65 is for the purpose of reducing damage to the container in the rotor such as might occur when the container strikes the projections time after time during the rotation of the drum. Member 65 can be of any flexible material, such as rubber and can be inflated by air under pressure to a size to cause the member 65 to cover the projection normally found in a rotary clothes dryer, as shown in Fig. 9. Fig. 10 shows container 12 in the drum 44 when there is no such member 65 in the drum and when the axis of the drum is substantially parallel to the axis of the container.

Fig. 11 shows container 12 in drum 44 when the container is fixed at an angle to the central axis 54 of the drum. The end margins of container 12 are held by braces 69 so that the longitudinal axis of the container 12 extends transversely of and at an acute angle with respect to axis 54.

Fig. 12 shows a view similar to Fig. 3 except that the length of the container with respect to the diameter of the rotor is relatively large, larger than the corresponding length and diameter of the container 12 shown in Fig. 3. This feature provides for an increased distance of travel for the shoe in the----------

container in Fig. 12, thereby providing a greater buffing action, if such is desired.

Fig. 13 shows a rotary drum 100 in a housing 102 having a motor 104 coupled by a flexible belt 106 to the drum to rotate the drum about a generally horizontal axis. Housing 102 has a front door 108 which closes the front, open end of drum 100. A coin slot 110 is adjacent to a timing knob 112 and a coin-actuated mechanism (not shown) is coupled to motor 104 to actuate the motor. The motor will not operate unless coins of a particular amount are placed in coin slot 110 and timer 112 is set to a predetermined time interval.

When door 108 is opened, a shoe or pair of shoes can be placed in the drum for buffing. The shoes to be buffed are placed in a bag and a container in accordance with the teachings of Fig. 1. After the door is closed, a coin is placed in slot 110 to energize motor 104. The motor will operate to rotate drum 100 for a certain period of time, during which time period the shoes will be buffed to a desired gloss. When the time period has elapsed, the door is opened and the container is removed and then the shoes are removed from the container, ready to be worn.

Another embodiment of the invention is shown in Fig.14 and includes a triangularly shaped container 120 which is removably fixed in a shiftable bin 122, such as the drum of a conventional rotary clothes dryer. The container 120 is adapted to removably receive a flexible bag 124 which is adapted to contain an article 126 to be buffed, such as a shoe, and one or more buffing elements 128.

Each buffing element may be of any suitable construction, such as a hollow ball having stopper means for containing a weight material, such as water, lead shot or the like. A buffing material is on the----------

outer surface of element 128. The buffing material is preferably the material of a small bag which receives the ball and has a drawstring which is tied in a knot after the ball is in the bag. The knot also serves as a buffing part. Bag 124 may be provided with drawstrings 130 for closing an opening 132 in the bag. The bag is large enough to permit relative movement between the bag, the article to be buffed and the buffing element.

Container 120 is formed from any suitable material and preferably a flexible material. The container has a front wall 134 and a rear wall 136, both walls 134 and 136 being triangular in shape. The container also has three walls 138 which span the distance between front and rear walls 134 and 136. Wall 134 has an opening 140 which is closed by a sliding clasp fastener 142 or other closure means. This configuration of container 120 provides for a high degree of tumbling movement of bag 124 in the container.

A dowel 144 is provided at each corner of container 120, respectively, each dowel 144 spanning the distance between the front and rear walls 134 and 136. The junction between each pair of side walls 138 is provided with an opening 146 exposing a segment 148 of the adjacent dowel 144. Each segment 148 extends through the eyelet 150 at one end of a suction cup coupling device 152 having a shaft 154 integral with a suction cup 156. Shaft 154 could have other eyelets thereon at spaced locations along the length of the shaft. This feature allows for attaching container 120 to drums of different sixes.

Each coupling device 152 is of a suitable flexible, resilient material, such as rubber or the like. Each cup 156 has a lateral projection 158 thereon for facilitating the removal of the suction cup from coupled relationship to an adjacent surface. By laterally shifting projection 158, the suction force----------

between cup 156 and the adjacent surface is broken, thereby allowing suction cup coupling device 152 to be separated from the surface.

In use, container 120 is provided with suction cup coupling devices 152 thereon as shown in Fig. 14. Then, the container and suction cups are placed in the drum 122 and the suctions cups 156 of coupling devices 152 are coupled to the inner surface 123 of drum 122 by forcing the cups downwardly so that they expand and slightly retract, whereupon they will be held by suction to surface 123. Thus, as the drum is rotated, container 120 is also rotated about the axis of rotation of the drum.

When it is desired to buff an article, such as a shoe, the shoe and a buffing element 128 are placed in bag 124 and the bag is closed, such as by pulling drawstring 130 to close opening 132 of the bag. Then, the bag is placed in container 120 and the closure means 142 closes opening 140. The drum is then rotated for a predetermined period of time.

During the rotation of the drum, the bag 124 will move about randomly within the container 120. Moreover, shoe 126 and element 128 will move randomly within bag 124, and the shoe will be buffed both by the material of the bag and by the external buffing material on the element 128. Following the expiration of the predetermined period of time, the drum rotation is stopped, the container is opened, the bag is removed, and the shoe is removed from the bag in a buffed condition.

Container 120 may be of any desired material. A suitable material is one made of a polyester/cotton twill fabric called Adirondack Twill which is 50% polyester and 50% cotton. Material of this type is available from Spring Industries, 1075 Battery Street, San Francisco, California.

Dowels 144 can be of any suitable material, such as a hardwood material. A typical length of each

dowel is 11-1/2 inches and a typical diameter is 3/8 inch.

Bag 124 can be of any suitable buffing material but is preferably a stretch fabric which is washable, such as one having 87% nylon and 13% Lycra (RTM) with a 210% stretch in length and a 75% stretch in width. Such a material is available from J. P. Stevens Company, 1185 Avenue of the Americas, New York, New York 10018 and is identified as DK1618. Lycra is an elastic segmented polyurethane. The same material can be used to form a sock or layer for covering element 128.

Preferably, each element 128 is made from a flexible, hollow body, such as one having the shape of a ball, with the body having a hole provided with a removable plastic plug for filling the body with a removable plastic plug for filling the body with a weight material, such as water, lead shot or the like. A typical diameter of each body is 3-1/2 inches and the body can be packed without the weight in it to minimize shipping costs. Vinyl balls suitable for this purpose are available from Funtaico, 28976 Hopkins Street, Hayward, California.

CLAIMS

1. Buffing apparatus comprising:

a container, for receiving an article to be buffed, adapted to be placed in a shiftable bin and moved about relative to predetermined references as the bin is shifted, a flexible bag of buffing material, for placement into the container, adapted to receive the article to be buffed and a buffing element, the bag, the article and the element being movable within and relative to the container, said buffing element having a buffing material thereon frictionally engageable with the article in the bag and the latter being of a size to permit the article therein to move relative to the buffing element and the bag as the container is moved relative to said reference.

2. Apparatus as set forth in Claim 2 wherein the buffing element comprises a body having a layer of buffing material covering the outer surface of the body.

3. Apparatus as set forth in Claim 2, wherein the body is flexible and hollow and is provided with a hole therein to permit a weight material to be placed in the element, and a plug for closing said hole.

4. Apparatus as set forth in Claim 3, wherein the weight material is water, said layer being of a stretchable fabric.

5. Apparatus as set forth in Claim 4, wherein the stretchable material is comprises of a synthetic material.

6. Apparatus as set forth in Claim 5, wherein said synthetic material is a combination of nylon and fibres of elastic segmented polyurethane.

7. Apparatus as set forth in any of Claims 4 to 6 wherein the stretchable material has approximately a 210% stretch in length and a 75% stretch in width.

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8. Apparatus as set forth in Claim 3 wherein the buffing element body is a vinyl ball.

9. Apparatus as set forth in any preceding claim wherein said container has a triangular shape, and including coupling means at the corners of the container for releasably attaching the container to the inner surface of a rotary drum.

10. Apparatus as set forth in Claim 9, wherein the container has a wall provided with an access opening, and means coupled with the wall for closing said opening.

11. Apparatus as set forth in Claim 10, wherein the container has a wall provided with an access opening, and means coupled with the wall for closing said opening.

11. Apparatus as set forth in Claim 10, wherein said closing means includes a sliding clasp fastener.

12. Apparatus as set forth in Claim 11, wherein said coupling device includes a shaft extending outwardly from a suction cup, and an eyelet on the outer end of the shaft.

13. Apparatus as set forth in Claim 12, wherein the container has a rod at each corner thereof, respectively, the container having an opening at each corner for exposing a segment of the respective rod, the eyelet of the adjacent coupling device removably receiving the respective rod.

14. Apparatus as set forth in any preceding claim wherein the container has an inner peripheral surface provided with a layer of buffing material thereon, the inner surface of the layer defining said buffing surface.

15. Apparatus as set forth in any of Claims 1-14 wherein the container has a flexible outer layer, a cushioned intermediate layer, and an inner layer having a buffing material on the inner face thereof.

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16. Apparatus as set forth in Claim 15, wherein the interior volume of the container is sufficient to allow the article to move randomly about within the container.

17. Apparatus as set forth in any preceding claim, wherein is included a rotary drum for removably receiving the container to allow the container to be moved about in the drum relative to the central axis of the drum.

18. Apparatus as set forth in Claim 17, wherein is included a brace for releasably holding the container in a fixed position within the drum.

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19. Apparatus as set forth in claim 18, wherein the brace is spring biased and is on one side of the container for forcing the container against the inner surface of the drum.

20. Apparatus as set forth in claim 19, wherein the container is freely received within the drum for substantially random movement therewithin.

21. Apparatus as set forth in any of claims 17 - 20, wherein the drum has a number of spaced, inner peripheral projections, and including an inflatable, tubular member which when inflated covers the projections, the container being positioned within the tubular member.

22. Apparatus as set forth in claim 17, wherein is included a pair of braces engageable with opposed ends of the container for maintaining the container in a fixed position within the drum, with the longitudinal axis of the container substantially transverse to the axis of rotation of the drum.

23. Apparatus as set forth in claim 17, or any claim appendant thereto, wherein is included a drum drive mechanism comprising a motor for rotating the drum, and a coin actuated mechanism for actuating the motor.

24. Buffing apparatus comprising:

a container;

a flexible bag for placement in the container and adapted for receiving an article capable of being buffed, said container having means for mounting the container in a shiftable bin for movement relative to a predetermined reference as the bin is shifted, there being a flexible, hollow element for placement in the

bag and having a buffing surface engageable with the article in the bag, said element adapted to receive and contain a weight material, said container being of a size to permit the bag, the element and the article to move relative to the container as the container is moved relative to said reference.

25. Apparatus as set forth in claim 24, wherein the material received in the element is water.

26. Apparatus as set forth in claim 24, wherein the bag has an opening and means for closing the opening.

27. Apparatus as set forth in any of claims 24 - 26, wherein the buffing element comprises a body having a layer of buffing material covering the outer surface of the body.

28. Apparatus as set forth in claim 27, wherein the body is provided with a hole therein to permit a weight material to be placed in the element, and a plug for closing said hole.

29. Apparatus as set forth in claim 27, or claim 28 wherein the said layer is formed of a stretchable fabric.

30. Apparatus as set forth in claim 29, wherein the stretchable material is comprised of a synthetic material.

31. Apparatus as set forth in claim 30, wherein said synthetic material is a combination of nylon and fibres of an elastic segmented polyurethane.

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32. Apparatus as set forth in claim 29 or claim 30, wherein the stretchable material has approximately a 210% stretch in length and a 75% stretch in width.

33. Apparatus as set forth in any of claims 27 - 32, wherein the element body is a vinyl ball.

34. Apparatus as set forth in any of claims 24 - 33, wherein said container has a triangular shape, and including coupling means at the corners of the container for releasably attaching the container to the inner surface of a rotary drum.

35. Apparatus as set forth in claim 34, wherein the container has a wall provided with an access opening, and means coupled with the wall for closing said opening.

36. Apparatus as set forth in claim 35, wherein said closing means includes a sliding clasp fastener.

37. Apparatus as set forth in any of claims 34 - 36, wherein said coupling means comprises a suction cup, a shaft extending outwardly from said suction cup, and an eyelet on the outer end of the shaft.

38. Apparatus as set forth in claim 37, wherein the container has a rod at each corner thereof, respectively, the container having an opening at each corner for exposing a segment of the respective rod, the eyelet of the adjacent coupling device removably receiving the respective rod.

39. Apparatus substantially as herein described with reference to the accompanying drawings.

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