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2,961,678

SHOE POLISHING DEVICE

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2 Sheets-Sheet 1

Fig-1

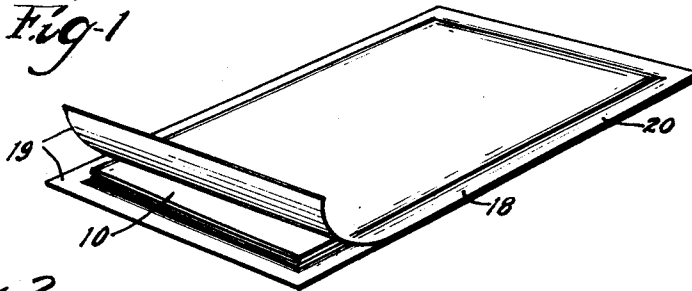


Fig-2

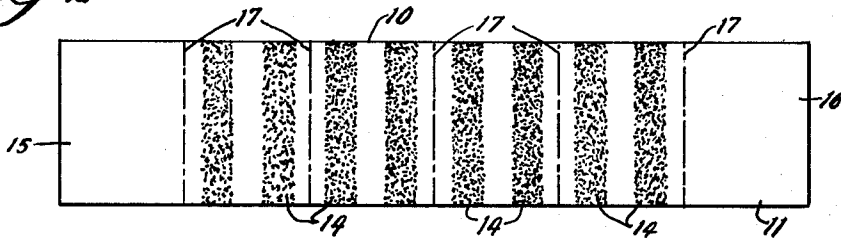


Fig-3

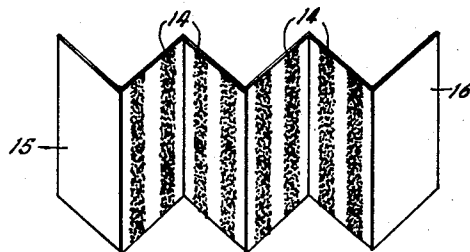


Fig-5

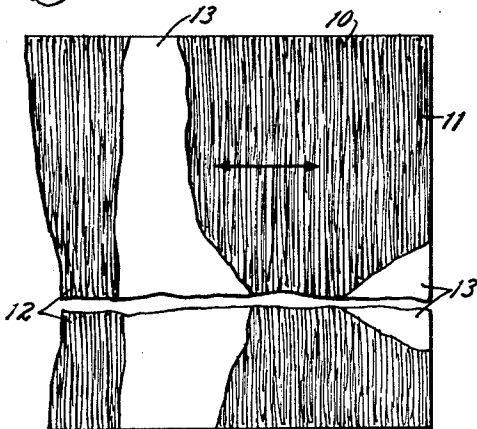
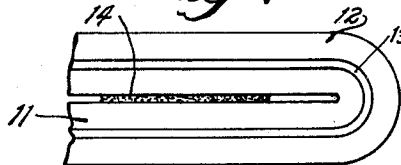


Fig-4



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SHOE POLISHING DEVICE

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13 Claims. (Cl. 15—131)

This invention relates to polishing devices and is more particularly concerned with improvements in a polishing device which is particularly designed for buffing or shining shoes.

It is a general object of the invention to provide an improved polishing device in the form of an elongate generally rectangular strip or sheet of relatively flexible material having a supply of a polishing substance on one face or surface thereof for application to the surface of the shoe or other object to be polished, and having an opposite face or surface suitable for buffing or polishing the surface of the object when the ends of the device are gripped in the hands of the user, the device being initially provided in a neat and compact package which makes it convenient for storage and use by travelers, hotel guests, or others who desire an inexpensive device which may be kept readily available for this purpose.

It is a more specific object of the invention to provide a shoe polishing device which is formed preferably of non-fabric materials cut from a web or sheet so as to provide an elongate strip with a polishing substance provided on one face thereof and with the opposite face being available for buffing the shoe with or without the application of the polishing substance to the surface.

It is another object of the invention to provide a shoe polishing device or kit which comprises an elongate strip of a laminated web or sheet having a supply of a polishing substance carried on one face thereof, which web or sheet is formed by binding an absorbent paper to opposite faces of a carrier web or sheet of material capable of preventing the migration of the polishing substance from one face to the other.

It is a further object of the invention to provide a readily disposable non-fabric shoe polishing device which comprises a pair of fibrous sheets of generally rectangular, elongate form bound together by a flexible plastic film and having on one face thereof a series of spaced spots or stripes of a polishing substance, with the composite strip being folded on spaced fold lines which are located between the spots of polishing substance so as to bring the spots of polishing substance into face-to-face contact in the folded condition in which the device is stored or packaged.

It is another object of the invention to provide a shoe polishing device of cloth-like form which is fabricated by bonding elongate strips of paper or similar fibrous sheet or web material to opposite faces of a similar strip of thermoplastic film and applying a series of transversely extending and longitudinally spaced stripes of polishing wax to one face thereof, the composite strip or cloth being then folded on transverse fold lines which are longitudinally spaced and located between the stripes of polishing wax so that the stripes of wax will be in face-to-face contact.

It is still another object of the invention to provide a shoe polishing device of the character referred to where- in the sheet materials employed are capable of stretching

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in the direction longitudinally of the composite strip so that when the device is gripped at opposite ends by the user and applied to the shoe surface for the polishing operation, it will stretch over the surface of the shoe and conform to the contour thereof.

It is a further object of the invention to provide a shoe polishing device of the character described which is formed from a laminated material comprising a pair of strips or webs of relatively soft absorbent paper which is creped or otherwise treated to render it somewhat stretchable and bound by heat and pressure to opposite faces of a flexible and stretchable plastic film whereby the device, when grasped at opposite ends and pulled back and forth across the surface of the shoe, will conform to the contour of the surface thereof during the polishing operation.

It is another object of the invention to provide a method of fabricating a polishing device wherein continuous webs of absorbent non-fabric sheet material, for example, paper, are brought together on opposite sides of a thermoplastic film and bound thereto by heat and pressure, a polishing wax is applied in continuous longitudinally extending transversely spaced stripes to one surface of the composite web, the web is folded on longitudinal transversely spaced fold lines which are located between the stripes of polishing wax into compacted relation, with the stripes of polishing wax in face-to-face contact and with marginal edge portions being free of the wax, the compacted material is cut into sections, each forming an accordion folded unit, of elongate rectangular form when opened out, which sections are thereafter enclosed in wrappers or envelopes formed from sheets or webs of substantially impervious wrapping material and hermetically sealed therein, thereby providing an inexpensive polishing device which can be stored for a substantial period of time without hardening of the polishing wax and which may be readily disposed of after one or several polishing operations.

These and other objects and advantages of the invention will be apparent from a consideration of the polishing device and the method of fabricating the same which is shown by way of illustration in the accompanying drawings wherein:

Figure 1 is a perspective view of a shoe polishing device enclosed in a protective wrapper or envelope in which the device is adapted to be marketed;

Figure 2 is a plan view of the shoe polishing device in opened out, ready for use condition, with the polish applying face uppermost;

Figure 3 is a perspective view of the polishing device in partially unfolded condition;

Figure 4 is a partial side edge view of the polishing device in the folded condition, to an enlarged scale, and with the thickness of the material being exaggerated;

Figure 5 is a plan view of one end of the polishing device, to an enlarged scale, and with portions broken away;

Figure 6 is a fragmentary plan view of a modified form of the polishing device;

Figure 7 is a schematic perspective view illustrating a method of fabricating the device of Figure 1; and

Figure 8 is a schematic plan view illustrating the method of Figure 7.

Referring to Figures 1 to 5 of the drawings, there is illustrated a form of polishing device which embodies the principal features of the invention and which is particularly adapted for supplying the needs of travelers and others who desire a readily available and inexpensive device having the form or shape of the fabric cloth strips commonly used for polishing shoes but which will have incorporated therein a supply of polishing wax suffi-

cient for one or two applications and a buffing surface for polishing the shoe after the application of wax and which may be readily disposed of after being used once or several times at the most.

The polishing device 10, as illustrated, comprises an elongate strip of material having the generally rectangular form in which woven or knitted fabric strips or cloths provided for shoe polishing purposes have generally been supplied. The device 10 has flexibility and buffing or polishing characteristics comparable to a cloth strip supplied for the same purpose and for convenience in description it may be referred to as a "polishing cloth." However, it will be understood that when the device is designated as a "cloth," the intended use of the device is referred to and not the material from which it is formed.

As shown in Figures 4 and 5, the polishing device or cloth 10 comprises outer or facing strips 11 and 12 of flexible paper or similar sheet material and an inner carrier strip 13, which is preferably of a continuous thermoplastic film, and to the opposite faces of which the outer strips 11 and 12 are adhered. One of the facing strips which may be conveniently referred to as the inner strip 11 is provided on its exposed surface with a series of longitudinally spaced transversely extending stripes or spots of a paste wax or other polishing substance. The stripes of polishing wax 14 are applied intermediate the ends of the device and gripping spaces 15 and 16 are provided at the ends of the device, the latter being free of the polishing substance and enabling the user to firmly grip the ends of the device in his two hands without contacting the polishing substance when the device is opened out and employed in the polish applying and buffing operations. The device is initially formed into a neat and compact unit by dividing it into sections of equal length which are folded in accordion fashion on the transversely extending fold lines 17, with the fold lines 17 being located between stripes 14 of the polishing substance so that when the device is folded the stripes or areas of the polishing substance are in face-to-face contact which results in a minimum of evaporation of the solvent or plasticizer.

To further prevent evaporation of the polish solvent or plasticizer, the device 10 in its folded and compact condition, is wrapped or packaged in an envelope-like container 18 which preferably comprises superimposed sheets 19 of a moisture vapor proof material which are hermetically sealed at the peripheral margins 20 to enclose the folded device or cloth 10.

The exterior sheets 11 and 12 of the polishing device 10 are preferably formed of a relatively thin, flexible, fibrous, sheet material, such as paper, of a type which has substantial moisture absorbing characteristics, for example, paper toweling and creped paper. Preferably, the paper is of the type in which the fibers are arranged with the longitudinal axes extending in one direction which results in the paper having substantial stretch in the direction transversely of the long axis of the fibers with substantially less stretch in the direction of the long axis of the fibers. In another form of the device the paper may be embossed or creped in both directions in order to provide the desired stretched characteristics. A further material which has been found satisfactory for the exterior sheets is available commercially under the name "Miracloth" which is understood to comprise cellulose fibers treated or sized with a material which is insoluble in water when dry, so that it may be washed, and to which dust and dirt tend to adhere, the fibers being arranged to extend in the same general direction so that the material, when formed into relatively thin sheets, has substantially greater stretch in the direction transversely of the long axis of the fibers than in the direction of the long axis thereof. This material has sufficient strength for use in forming the device 10 while at the same time it is capable of stretching a substantial

amount in the direction transversely of the grain without rupturing so that it conforms to the surface of the object being polished when used for the buffing operation.

The inner ply or binder sheet 13 is preferably formed from a relatively thin flexible thermoplastic such as polyethylene or vinyl sheeting "Pliofilm," or the like, which is impervious to water and which serves as a barrier against the migration of the polishing substance which is carried on the one outer ply or sheet 11. The plastic film is preferably capable of stretching sufficiently to cooperate with the polish applying and buffing exterior sheets 11 and 12 in conforming to the contour of the surface which is being polished and has sufficient strength to reinforce the exterior sheets and resist tearing when in use.

The polishing substance which is preferably applied in the form of stripes 14 to the exterior surface of the outer ply or sheet 11 may be a paste-type shoe polish formed from carnauba, montan, cerisin or other wax with a suitable hydrocarbon or alcohol solvent. A sufficient amount is applied on the stripes or spots 14 to polish a pair of shoes. The spaced stripes or spots 14 of the polishing substance are arranged on the surface of the outer sheet 11 so that the device 10 may be folded as shown in Figures 2 and 3 to bring each of the stripes or spots 14 into face-to-face contact with another stripe or spot 14 and reduce to a minimum the exposed surface of the polish thereby minimizing the degree of evaporation of the solvent between the time of the application of the polish and the use of the device. The particular shape or form of the stripes or spots 14 is a matter largely of choice, it being possible to apply the polish in a decorative pattern or in order to provide information, such as, for example, the trade name under which the device may be marketed. It is desirable to have the polish applied in a pattern which is arranged so that at least substantial portions of the coated areas will be in face-to-face engagement when the device is folded into package form. This is desirable to keep the rate of evaporation of the solvent to a minimum and thus increase the period over which the device may be stored without hardening of the polish before it is used.

A modification of the device is shown in Figure 6 in which the one face of the device 21 is provided with stripes or areas 22 of the polishing substance which are bordered or enclosed by a relatively narrow line or band 23 of paraffin wax, the latter providing a readily separable seal around each stripe 22 of polish when the device 21 is folded as illustrated in Figure 3 with the polish stripes 22 in face contacting relation. This border or band of paraffin, when pressed into engagement with a like band of paraffin, provides a seal to aid in retarding the evaporation of the solvent in the polish in the stripes or areas 22 and increases the effective period during which the device may be stored without hardening of the polish. The polishing device 21 may be otherwise fabricated in the same manner as the preferred form thereof.

The wrapping material 19 for the envelope or wrapper 18 is preferably a sheeting which has a high resistance to the passage of the solvent used in the polishing substance such as metal foil, plastic film, coated or foil lined paper, or any other heat sealable material which is capable of forming an hermetically sealed container for the device.

A satisfactory method of fabricating the polishing device is illustrated in Figures 7 and 8. Two exterior webs of paper 31 and 32 are fed into superimposed relation with a thermoplastic web 33 between a pair of embossing rolls 34. The embossing rolls 34 apply to the surface of the webs 31 and 32 an embossing or creping to provide a two way stretch in the web material. The rolls 34 may be heated and arranged to apply pressure to the composite web so as to adhere the exterior webs 31 and 32 to the inner or binder web 33. The composite web

is then passed between a polish applicator roll 35 and a cooperating back up roller 36 for application of continuous lines 37 of the polishing substance, the applicator roll 35 having applying bands 38 in encircling relation on the periphery thereof and spaced axially so that continuous stripes 37 of the polishing substance are applied in transversely spaced relation on the uppermost surface of the composite web. The applicator roll 35 is provided with a doctor roller and fountain arrangement as indicated at 39. The composite web with the stripes or lines 37 of polishing substance applied thereto is fed to a folding or pleating mechanism which comprises a pair of cooperating disc carrying rollers 40 between which the web passes and which folds the same on lines 41 extending longitudinally of the web between the transversely spaced stripes 37 of the polishing substance. From the folding rollers 40 the composite web is passed to a pair of cooperating compacting rollers 42 which bring the folds together and form a relatively narrow folded strip of the material as indicated at 43. The strip 43 is cut by a severing mechanism 44 into sections which form the individual polishing units 45, each in accordion folded condition. The polishing devices or units 45, in their folded condition, are fed across a guideway or magazine 46 to a wrapping mechanism 47. The units 45 are fed successively by a reciprocating pusher 48 between a pair of article spacing and web feeding rolls 49 between which webs of wrapping material 50 are also fed into superimposed relation with the units 45 being fed between the webs at spaced intervals. Thereafter the assembly advances to a pair of sealing rollers 51 which heat seal the side edges of the webs 50 and at longitudinally spaced intervals apply a cross seal between the units 45 to form a series of connected packages 52 which are separated into single or multiple package units as desired by reciprocating knives indicated at 53. Both the forming and packaging mechanisms are provided with suitable guides for supporting the various materials in assembled relation as the successive operations are carried out.

While specific materials and particular details of construction have been referred to in describing the form of the polishing device which is illustrated and the preferred method of fabricating the same, it will be understood that other materials and different details of construction may be employed within the spirit of the invention.

We claim:

1. A disposable shoe polishing device comprising elongate generally rectangular sheets of a relatively thin flexible absorbent paper which are characterized by being capable of stretching substantially more in the direction of the length thereof than in the direction of their width, a sheet of relatively thin flexible material which is somewhat stretchable and which is substantially impervious to polishing substances connecting adjacent faces of said sheets of paper, and a polishing substance arranged on longitudinally spaced areas on one face of said polishing device.

2. A disposable shoe polishing device comprising inner and outer superimposed sheets of relatively absorbent creped paper, said sheets being bound together by a plastic film extending between the opposed faces of said sheets of paper which plastic film is impermeable to shoe polish, a plurality of generally parallel, longitudinally spaced, transversely extending stripes of a polishing wax on the exposed outermost surface of one of said sheets of paper and said device being folded on parallel, longitudinally spaced, transverse lines extending between said stripes of shoe polish so as to bring the stripes into face-to-face contacting relation.

3. A disposable device for use in waxing and polishing shoes or like articles comprising an elongate generally rectangular strip of flexible material which is formed from a lamination of non-woven fibrous sheet material and a sheet of a plastic film material which is a barrier to the

transmission of a polishing wax and which is adhered between adjacent surfaces of the fibrous sheet material, and parallel longitudinally spaced transverse stripes of polishing wax on the one face of said strip, and said strip being folded upon a transverse line intermediate adjacent stripes of said polishing wax to bring said stripes into face-to-face engagement.

4. A disposable polishing and buffing device comprising two superimposed sheets of relatively absorbent paper, a plastic film extending between opposed faces of said sheets of paper and bonded thereto, said plastic film being of a material which is a barrier to the migration of wax-type polishing substances, a plurality of parallel spaced stripes of a polishing substance on the exposed surface of one of said paper sheets and said device being accordion folded with the folding lines spaced between the stripes of polishing substance so as to bring substantial portions of the stripes of polishing substance into face-to-face contacting relation.

5. A disposable strip of material for use in polishing shoes or like objects comprising two generally rectangular sheets of paper which are characterized by being capable of stretching substantially more in the direction of the length thereof than in the direction of their width, a sheet of somewhat stretchable plastic film connecting adjacent faces of said sheets of paper, a polishing substance arranged on longitudinally spaced areas on one face of said device and said device being accordion folded on transverse fold lines to bring the areas of polishing substance into face-to-face contact.

6. A disposable strip of material for use in polishing shoes or objects having similar surface contours, said strip comprising two rectangular sheets of non-woven fibrous material which are characterized by being capable of stretching substantially in a lengthwise direction thereof while having no substantial stretch in the transverse direction, a sheet of somewhat stretchable plastic film connecting adjacent faces of said fibrous sheets, and a wax type polishing material on one face of said strip of material, said strip of material being folded to bring areas of said polishing material into face-to-face contact.

7. A disposable strip of material for use in polishing shoes or similar objects comprising two generally rectangular sheets of flexible creped paper which are characterized by being capable of stretching a substantial amount in the direction of the length thereof while having substantially less stretch in the direction transversely of their length, a sheet of somewhat stretchable plastic film bonding adjacent faces of said sheets of paper, and a polishing substance covering longitudinally spaced areas on one face of said strip of material, said strip of material being folded upon itself on transverse fold lines to bring the areas covered by the polishing substance into engagement with each other.

8. A disposable polishing device which is in the form of an elongate rectangular strip of relatively flexible material which is adapted to be grasped at opposite ends and engaged with an object to be polished and which has a supply of a polishing substance on one face thereof, said device comprising elongate rectangular outer members formed of a relatively thin flexible non-woven fibrous sheeting and an inner connecting member of thin flexible and stretchable sheeting which is substantially impervious to the polishing substance and which is bound to adjacent faces of the outer members, said outer members being characterized by having the fibers therein oriented so that these members will have substantially greater stretch in the direction lengthwise of the sheet than in the direction crosswise of the sheet and cause the device to follow the contour of the object when engaged therewith and given a back and forth motion under tension applied to the opposite ends of the device, said polishing substance being arranged in areas which are in spaced relation on intermediate portions of the exposed surface of one of said outer members and said device being accordion folded to

position in face-to-face contacting relation the areas of the surface thereof on which said polishing substance is arranged.

9. A method of continuously forming a series of disposable polishing devices which comprises feeding webs of relatively thin flexible fibrous material into engagement with opposite faces of a web of relatively thin flexible material which is impervious to wax-type polishing substances, applying continuous longitudinally extending transversely spaced stripes of a polishing substance to one face of the composite web, folding the composite web progressively along longitudinally extending parallel lines which are spaced so as to bring the stripes of polishing substance into face-to-face contact, compacting the folded web, severing sections of the compacted web and enclosing each successive section in a separate wrapper.

10. A method of continuously forming disposable polishing devices which comprises feeding webs of relatively thin flexible and absorbent paper into engagement with opposite faces of a web of a relatively thin plastic film which is impervious to polishing substances, applying continuous longitudinally extending transversely spaced stripes of a polishing substance to one face of the composite web, folding the composite web along longitudinally extending parallel lines which are transversely spaced so as to bring the stripes of polishing substance into face-to-face contact, compacting the folded web, severing sections of the compacted web, enclosing each successive section in a separate wrapper of sheeting material which is also impervious to the polishing substance, and hermetically sealing the successive sections in said wrappers.

11. A method of forming a shoe polishing device which comprises laminating two sheets of creped paper by superimposing the sheets and binding them together with an interposed sheet of relatively thin flexible material which is a barrier to the transmission of a polishing wax, applying to the exposed surface of one of the sheets of paper a series of spots of polishing wax of substantial area which are spaced longitudinally thereof and folding the device on parallel longitudinally spaced fold lines which extend

transversely between the spots of wax and which are spaced a predetermined distance apart to thereby bring the spots of wax into face contacting relation.

12. A method of forming a continuous series of shoe polishing devices which comprises feeding webs of relatively thin absorbent paper into engagement with opposite faces of a web of relatively thin flexible material which is impervious to polishing wax, creping the paper webs, applying transversely spaced spots of a polishing wax to one face of the composite web, folding the composite web on longitudinally extending parallel lines which are spaced transversely to bring the spots of polishing wax into face-to-face contact, compacting the folded web and severing the web on transverse lines to provide sections of the compacted web.

13. A method of forming a shoe polishing device having an elongate cloth-like form which comprises laminating two sheets of creped paper by superimposing the sheets and binding them together with an interposed sheet formed of a plastic film which is characterized by being a barrier to the transmission of a polishing wax, applying to the exposed surface of one of the sheets of paper a series of longitudinally spaced transversely extending stripes of polishing wax with each stripe having a substantial area and folding the device on parallel longitudinally spaced fold lines which extend transversely between the wax stripes to thereby bring the wax stripes into face contacting relation.

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