CONTAINER FOR HAND TOOLS

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ABSTRACT

A container for hand tools, such as wrenches, screwdrivers, a hammer, a pliers and the like, includes a substantially rectangular, opaque, flexible, sheet-like base member. Flexible holding elements are secured in parallel relationship to the base member to define a plurality of pockets, which expand to receive the hand tools. The holding elements are transparent so that the tools are visible within the pockets. Pictorial representations of the hand tools are formed on the base member and are visible through the transparent holding elements so that the tools are placed in the proper pockets. Each representation corresponds to one pocket and to a hand tool to be contained in that pocket.

A package is comprised of the container and of the hand tools disposed in the container.

7 Claims, 4 Drawing Figures
CONTAINER FOR HAND TOOLS

BACKGROUND OF THE INVENTION

The present invention relates to a special receptacle for hand tools and to a package comprising the receptacle and the hand tools.

Containers or special receptacles for hand tools have heretofore been fabricated from plastic material. These containers typically take the form of a substantially rectangular, opaque, flexible, sheet-like base member having a plurality of parallel, transparent, flexible holding elements secured to one surface of the base member. The holding elements cooperate with the base member to define a plurality of pockets, each pocket receiving one of the hand tools such that the tool is visible through the transparent holding element and is spaced, parallel relationship with the other hand tools contained. In many such containers, each of the pockets is of substantially the same size so that the user can place any one of the hand tools to be contained in any pocket large enough to receive it. In other units, the pockets are substantially of different shapes and sizes and the user then must guess as to which pocket is of suitable shape and size to receive the particular tool being placed in the container. This selection is particularly difficult where an assortment of hand tools is to be contained. A solution has been to make each pocket large enough to receive any of the tools. Clearly, this is a waste of both space and material.

Some of these containers have indicia or characters printed on the holding elements (which are in that case preferably opaque so that the printed matter can be readily viewed). This printed matter indicates the particular hand tools to be contained in particular pockets. For example, a container for drill bits may have thereon the printed numerals "1/16", "3/32", "1/8", "5/32", "3/16", "7/32", and "1/4" to indicate the various bit sizes and their respective pockets. Frequently, however, the bit size is not marked on the bit itself or is illegible due to long use or poor stamping. Thus, the user must still guess by viewing the tool, by actually measuring it, or by trial and error, the size of the bit, and accordingly the pocket in which it is to be contained.

It is desirable, therefore, to provide a hand tool container wherein the pockets are appropriately shaped and sized to receive an assortment of such tools and wherein the user can readily determine the tool that properly belongs in each pocket of the container.

SUMMARY OF THE INVENTION

Accordingly, a principal object of the present invention is to provide a container for hand tools and a package comprising the container and a plurality of such hand tools.

Another object of the invention is to provide a container for hand tools wherein the user can readily determine the tool that properly belongs in each pocket of the container.

Still another object of the present invention is to provide a container for assorted hand tools in which the user is clearly and repeatedly directed to place the hand tools in the proper pockets of the container.

To these and other ends, the present invention contemplates a container for receiving and holding in spaced, parallel relationship a plurality of hand tools, such as wrenches, screwdrivers, a hammer, a pliers, and the like. The container in the preferred embodiment of the invention comprises a substantially rectangular, opaque, flexible, sheet-like base member and a plurality of parallel, transparent, flexible holding elements secured along three edges thereof to one surface of the base member, the holding elements being cooperative with the base member to define a plurality of pockets therebetween. Each pocket lies flat when empty but is adapted to expand to receive one of the hand tools such that it is visible through the transparent holding element and held in spaced, parallel relationship with the other tools.

It is a particular feature of the invention that pictorial representations of the hand tools are formed on the base member and are visible through the transparent holding elements. Each representation corresponds to one of the pockets and to the hand tool desired to be placed in that pocket. In this manner, the user can readily determine which one of the assortment of hand tools is to be placed in each pocket.

To reinforce the impression created by the pictorial representations, printed characters are located on the representations. These characters spell out the tool to be placed in the respective pocket. The representations and characters may overlap and extend into the adjacent pockets and are not spatially limited to the interiors of the respective pockets.

A package is defined by the described container and a plurality of assorted hand tools, such as wrenches, screwdrivers, a hammer, a pliers and the like, received and held in spaced, parallel relationship in the container.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a representative container for hand tools shown rolled into a folded condition;

FIG. 2 is a perspective view of the container shown in FIG. 1 but shown in another folded condition;

FIG. 3 is an elevational view of the container having a plurality of assorted hand tools therein ; and

FIG. 4 is a cross-sectional view taken along the line 4—4 in FIG. 3.

DETAILED DESCRIPTION

In the drawings, there is shown a representative container 10 for assorted hand tools 12, such as wrenches, screwdrivers, a hammer, a pliers and the like. The container 10 together with the tools 12 comprise a package 14.

The container 10 holds the tools 12 in spaced, parallel relationship. In the preferred embodiment of the invention illustrated in the drawings, the container 10 comprises a base member 20 and a plurality of pockets 22 associated therewith for receiving the tools 12. The base member 20 of the container is preferably substantially rectangular in shape and is flexible and sheet-like in form. This construction permits the container to be rolled or folded such that it can be readily stored, shipped or transported, as best seen in FIGS. 1 and 2. Preferably, the base member 20 is fabricated of an inexpensive but rugged thermoplastic material, such as vinyl, although other plastics are suitable. Preferably also, the base member 20 is opaque and of dark color, for reasons to become apparent upon further discussion.
A plurality of the pockets 22 are employed in suitable sizes and shapes to receive hand tools 12 of corresponding sizes and shapes. It is not necessary that the pockets 22 be rectangular in shape and equal in size. Indeed, it is desirable that the pockets be of varying shape and size so as to accommodate assorted hand tools 12. Generally, one pocket 22 is adapted to receive one tool 12. However, in containing of a hammer, two pockets are desirable.

The pockets 22 are each defined by the base member 20 and by a plurality of holding elements 24 secured to the base member, the amount of holding elements corresponding to the amount of pockets formed. Each holding element 24 is flexible and is arranged in parallel with the other holding elements so that the hand tools 12 are held in parallel position in the pockets 22. Preferably, the holding elements are fabricated of a thermoplastic material, such as vinyl, polyethylene, polypropylene, or similar material. Where both the base member 20 and the holding elements 24 are formed of thermoplastic material, they are desirably fastened together by heat sealing each of the holding elements substantially along the base member for one surface of the base member. It is apparent that the holding elements could also be fastened to the base member by stitching, riveting, gluing or another process.

It is particularly important that each holding element 24 be transparent so that a hand tool 12 can be seen in the pocket 22 defined by the holding element and the base member is visible through the transparent holding element. The hand tool will stand out clearly when located in the pocket because of the opaque, dark color base member which forms a background.

The holding elements 24 may be individual rectangular pieces of thermoplastic material. In the illustrated embodiment, they are defined by a pair of flexible, longitudinal strips 26 and 28, which are mounted in parallel onto the base member. At spaced locations along their length (as at 30) and substantially entirely along their bottom edges (as at 31), the strips 26 and 28 are fastened, as by heat sealing, to the base member, thereby forming the plurality of pockets 22. In the area where the hammer is to be contained, however, the upper strip 26 is not sealed to the base member along its bottom edge. The strips 26 and 28 lie flat along the base member 20 when the pockets are empty but, as they are flexible, the pockets defined thereby expand to receive the hand tools, as seen in FIG. 4.

It is a particular feature of the present invention that pictorial representations 32 of the hand tools are formed on the base member 20 and are visible through the transparent holding elements 24. These pictorial representations 32 assist the user in placing the hand tools in the proper pockets. The representations are the same size and shape as the tools but are two dimensional. Each representation is generally located in the center region of one pocket, although each pocket does not have a representation therein. The user can readily compare the size and shape of the tool with the pocket 22 in which it is to be placed. The representations are useful that the user additionally compares the tool with the similarly appearing representation. Each representation 32 corresponds to only one pocket and thus only the one tool which is to be placed in that pocket. Where the base member is dark in color, e.g., blue, the representations should be formed in a contrasting color, e.g., white, for clarity. Of course, the representations are not visible after tools have been inserted in the pockets. On the other hand, the tools will then be visible.

Each of the pockets 22 in the embodiment shown in the drawings is smaller than the hand tools to be contained therein. Therefore, the tools extend outwardly from the open, unsealed edges of the pockets. Accordingly, the pictorial representations 32 also extend outwardly from their respective pockets 22 and overlap and extend into adjacent pockets.

To further assist the user in placing the hand tools in the proper pockets, printed characters 34 are located directly upon each of the pictorial representations 32. The characters spell out the name of the tool to be contained in each pocket and correspond to the respective representation. It should be apparent that the characters could also be printed adjacent the representations so long as their meaning as to the tools is clear. The term "printed character" as used herein is intended to encompass the definition of an area of the base member surrounded by the pictorial representation but actually forming a portion of the base member. These characters 34 greatly reinforce the impression created on the user by the pictorial representations 32 and thus eliminate all guesswork in selecting the appropriate container pockets 22.

In the embodiment illustrated in the drawings, the upper flexible, longitudinal strip 26 is divided into eight sections which define eight holding elements 24a through 24h (respectively from left to right in FIG. 3). Element 24b is adapted to receive the head portion of a hammer and elements 24a and 24c on opposite sides thereof are intended to be left unfilled but to serve as a double-sealed support for the relatively heavy hammer head. Elements 24d through 24h are adapted to receive open end wrenches of the following sizes, respectively: 5/16 and 11/32, 7/16 and 3/8, 9/16 and 15/32, 11/16 and 19/32, and % and % and %. The lower flexible, longitudinal strip 28 is divided into eight sections which define holding elements 24i through 24p (respectively from left to right in FIG. 3). Element 24j is adapted to receive the handle portion of the hammer and element 24i on the side thereof closer to the edge of the base member 20 is intended to be left unfilled but to serve as a sealed support for the relatively heavy hammer handle. Element 24k is adapted to receive a slip joint pliers and elements 24l through 24p are adapted to receive screwdrivers of the following types, respectively: heavy duty (wide blade), cabinet (narrow blade), recessed (Phillips type blade), precision (narrow blade), and stubby (wide blade). Alternatively, the screwdriver may alternatively replace the stubby screwdriver.

Each of the holding elements 24a through 24p defined by both flexible, longitudinal strips 26 and 28 is substantially rectangular in shape, except element 24k (adapted to receive the pliers). In the preferred embodiment, the element 24k is trapezoidal in shape. More particularly, the upper edge thereof, which is not sealed to the base member, extends at an angular orientation to the bottom edge. This permits the ready insertion of the pliers into that pocket. Moreover, it results in a stronger structure and one easier to fabricate where adjacent holding element 24j is to be used to receive the hammer handle and accordingly must be larger in size.
As shown, holding elements 24b and 24j are aligned and have adjacent open edges in parallel relationship and spaced apart. Thus, a hammer or similar elongated hand tool is disposable within these two pockets. This double support is desirable because the weight of the relatively heavy hammer is then distributed over a larger area.

To allow expansion of the pockets upon insertion of those tools which are cylindrical in shape, some of the pockets 22 have cut-out portions 37 at their lower corners. For example, where a cylindrical-handle screwdriver is inserted into a rectangular-shaped pocket, binding will occur and the pocket will tend to tear at its lower corners if the pocket is sealed along three edges (see FIG. 4). The cut-out portions 37 enable the pockets to expand while accommodating the cylindrical-shaped tool handles. Where the holding elements 24 are defined by the strips 26 and 28, the cut-out portions are formed in the strips prior to fastening of the strips to the base member 20. Alternatively, the cut-out portions 37 could be formed in the holding elements 24 after they have been secured to the base member 20.

Further illustrated in FIG. 3 are specific embodiments of pictorial representations 32 and printed characters 34. In the upper row (corresponding to the strip 26), the following representations and characters appear (respectively from left to right): hammer representation in holding element 24h, and wrench representations and the words "wrench" together with the respective wrench sizes in holding elements 24d through 24h. In the lower row (corresponding to the strip 28), the following representations and characters appear (respectively from left to right): hammer representation (the remainder) and the words "claw hammer" in holding element 24j, pliers representation and the word "pliers" in element 24k, and screwdriver representations and the words "screwdriver" together with the respective screwdriver types in elements 24l through 24p. It should be apparent that the above representations and characters are only illustrative of various tools which could be contained.

In accordance with a feature of the invention, a substantially rectangular, flexible sheet-like flap 38 is employed to maintain the hand tools of the upper row of pockets 22 in their proper positions when the package 14 is formed. The flap 38 is secured to the upper edge of the base member 20, as by heat sealing, such that it overlies a portion of the surface on which the tools are mounted. Preferably, the flap 38 is of the same thermoplastic material, such as vinyl, that comprises the base member, and is opaque and of dark color such that trademarks or advertising copy can be printed thereon in a contrasting color.

A grommet 40 is fixed to the base member 20 at the center of one side edge, preferably the side edge opposite the pockets which receive the hammer. Disposed through and cooperative with the grommet 40 is a tie 42 of any suitable type. As the base member 20, the holding elements 24 and the flap 38 are each flexible, the container can be folded onto itself and then secured in folded, rolled condition by the tie 42 (as best seen in FIG. 1).

As aforesaid, a package 14 is comprised of the container 10, described in detail above, and a plurality of hand tools 12 disposed therein. As shown in FIGS. 3 and 4, a pliers 50 and a pair of screwdrivers 52 and 54 are disposed within pockets 22 defined by respective holding elements 24k, 24l and 24m. Other tools have not been shown for the purpose of clarity. As is apparent, a hammer, five open-end wrenches and three additional screwdrivers are intended to be placed in the remaining pockets.

These hand tools 12 are placed in the proper pockets by matching them to the respective pictorial representations 32 and printed characters 34 describing the tools. The container 10 is then rolled or folded, as shown in FIGS. 1 and 2, and secured by the tie 42. The resulting package is conveniently stored and/or handled in this form.

The container for hand tools 10 has been found to be particularly useful as a promotional item for improving the sales of retail businesses. In a typical promotional program, the container 10 is given free to a customer and the customer can then collect a complete set of tools by the purchase of goods from the retailer in specific quantities and at specified times. Alternatively, the customer may receive some of the tools gratis upon retail purchases but may be required to purchase other of the tools at a reduced price, in particular, the more expensive tools such as the hammer and pliers. The partially filled container serves as a constant reminder that there are additional tools to be collected and that to obtain them, additional retail purchases must be made at particular dealers. In such a promotional program, the flap 38 is printed with instructions as to the manner of collecting the hand tools 12.

Thus, the present invention provides a container for hand tools and a package comprising the container and the hand tools. The container 10 has pictorial representations 32 and printed characters 34 thereon which describe the tools to be contained in the respective pockets so that the user can readily place the tools in the proper pockets of the container.

I claim:
1. A container for receiving and holding in spaced, parallel relationship a plurality of hand tools, such as wrenches, screwdrivers, a hammer, a pliers, and the like, comprising:
   a. a substantially rectangular, opaque, flexible, sheet-like base member; and
   b. a plurality of parallel, transparent, flexible holding elements secured along three edges thereof to one surface of said base member, said holding elements cooperating with said base member to define a plurality of pockets therebetween, each said pocket lying flat when empty but being adapted to expand to receive one of the hand tools such that the hand tool is visible through said transparent holding element and held in spaced, parallel relationship with the other hand tools;
   wherein the improvement comprises:
   c. means formed on said base member and visible through said transparent holding elements and defining pictorial representations of the hand tools to be contained to assist the user in placing the hand tools in the proper pockets, said means corresponding to said pockets and to the hand tools to be contained in the respective pockets; and
   d. printed characters located adjacent said means defining pictorial representations and visible through said transparent holding elements, said printed characters explaining and reinforcing the impression of said means defining pictorial representa-
2. A container in accordance with claim 1 wherein at least one of said pockets is smaller in at least one dimension than the hand tool to be contained therein and wherein one of said means defining pictorial representations is located within said one pocket and overlaps and extend into an adjacent pocket.

3. A container in accordance with claim 1 wherein at least one of said holding elements is trapezoidal in shape, such that a pliers is readily received within the pocket defined by said holding element without binding.

4. A package of assorted hand tools, comprising:
   a. a container for receiving and holding in spaced, parallel relationship a plurality of the hand tools and comprising:
      1. a sheet-like base member;
      2. a plurality of transparent holding elements secured along three edges thereof to one surface of said base member, said holding elements cooperating with said base member to define a plurality of pockets therebetween;
   3. means formed on said base member and visible through said transparent holding elements and defining pictorial representations of the hand tools to be contained to assist the user in locating the hand tools in the proper pockets, said means corresponding to said pockets; and
   4. printed characters located adjacent said means defining pictorial representations, said printed characters explaining and reinforcing the impression of said means defining pictorial representations to further assist the user in placing the hand tools in the proper pockets of said container; and

b. a plurality of assorted hand tools, such as wrenches, screwdrivers, a hammer, a pliers, and the like, adapted to be received and held in said container pockets, said pockets corresponding in size to and being adapted to receive the respective hand tools and said hand tools corresponding to said means defining pictorial representations and said printed characters located thereon such that each said hand tool is placed in the proper pocket and is visible in said pocket in said container of said package.

5. A container in accordance with claim 1 wherein said printed characters indicate the names of the hand tools to be contained in the pockets.

6. A container in accordance with claim 1 wherein said means defining pictorial representations are two-dimensional and have substantially the same sizes and shapes as the hand tools to which said means correspond.

7. In a container for receiving and holding a plurality of hand tools having a substantially rectangular, opaque, flexible, sheet-like base member and a plurality of transparent, flexible holding elements mounted to one surface of said base member, each said holding element being adapted to receive and hold one of the hand tools such that the hand tool is visible through said holding element, the improvement comprising two-dimensional pictorial representations of the hand tools to be contained located on said one surface of said base member and visible through said holding elements, said pictorial representations having substantially the same sizes and shapes as the hand tools and corresponding in size to said holding elements to assist the user in locating the hand tools in the proper places in the container.