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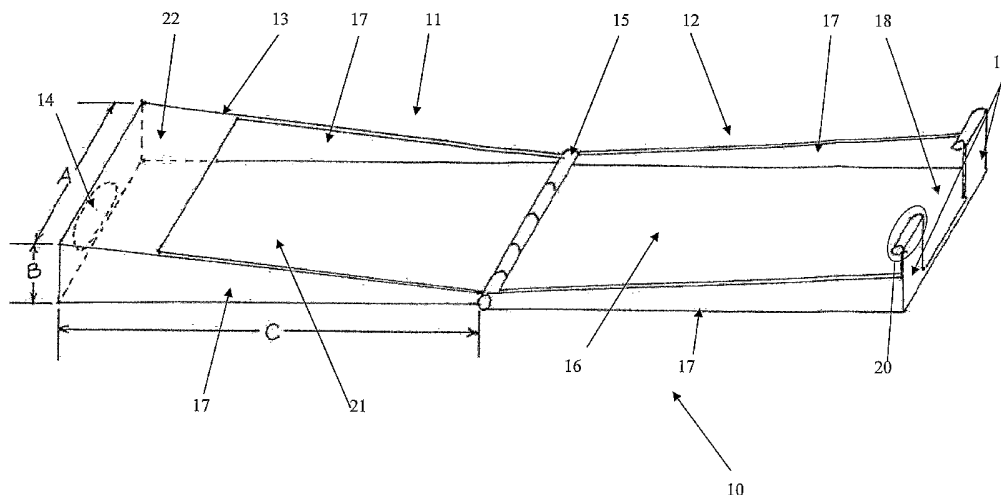
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(54) Title: PAINT BRUSH PROTECTOR AND SHAPER



(57) Abstract: A paint brush protector and shaper (10) for a paint brush having a handle, shoulders and bristles, the protector (10) including a first portion (11) and a second portion (12), each portion provided with at least one sidewall (17) with at least a pair of an engagement assembly wherein the parts of the engagement assembly are engageable to close the protector (10).



WO 2006/017906 A1

PAINT BRUSH PROTECTOR AND SHAPER

Field of the Invention.

The present invention relates to paint brush protectors and shapers and in particular to paint brush protectors for protecting the paint brush bristles from
5 damage or deformation.

Background Art.

Various paint brush protectors are available in the art including those used currently to protect paint brushes prior to sale and subsequently.

Paint brush protectors that are included with a paint brush when they
10 are sold are typically manufactured of paper or cardboard and are not intended to protect the brush after the first use of the brush. They are generally removed and disposed of by the purchaser.

Once a user realises that the brush needs protecting, generally a further paint brush protector is purchased. These paint brush protectors are generally of a
15 more robust or permanent construction than the cardboard or paper of the temporary paint brush protector provided when the brush is sold.

These protectors are many and varied in type. One prior art protector has a cavity in the brush protector which enables the brush to be contained within the brush protector. The brush protector has hinges which enable the brush protector to
20 be folded to form the cavity to contain the brush. The brush is retained in the brush protector by a string which is attached to a button with the first end of the string attached to the button, the string then wrapped around the brush. If desired, the second end of the string can be attached to the string or wrapped around the button to more securely retain the brush in the cavity of the brush protector. Air holes facilitate drying
25 of the brush when it is contained in the cavity of the brush protector.

Another protector of the prior art is one in which a pouch is provided for the paint brush. The handle of the paint brush is placed into the pouch first and it extends through an opening provided in one of the sidewalls of the pouch. The rest of the brush including the attachment portion between the bristles and the handle are
30 then received by the pouch. A flexible flap is provided which can then be closed and secured to maintain the brush within the pouch.

The main problem with this pouch and pouches of this kind is that the

bristles of the brush are received in the pouch as well as the shoulders. When removing the brush from the pouch, the bristles catch on the inside surface of the pouch and continued movement of the brush out of the pouch generally damages the bristles which is contrary to the purpose of the protector.

5 It will be clearly understood that, if a prior art publication is referred to herein, this reference does not constitute an admission that the publication forms part of the common general knowledge in the art in Australia or in any other country.

Summary of the Invention.

10 The present invention is directed to a paint brush protector and shaper which may at least partially overcome at least one of the abovementioned disadvantages or provide the consumer with a useful or commercial choice.

15 In its broadest form, the invention resides in a paint brush protector and shaper for a paint brush having a handle, shoulders and bristles, the protector including a first portion and a second portion, each portion provided with at least one sidewall with at least a pair of an engagement assembly wherein the parts of the engagement assembly are engageable to close the protector.

20 In one form, the invention resides in a paint brush protector and shaper for a paint brush having a handle, shoulders and bristles, the protector including a first portion and a second portion engageable with the first portion to close the protector, at least one of the portions having a housing portion to engage and surround the shoulders of the brush leaving the bristles at least partially free, the housing portion having an opening therein to receive the handle of the brush therethrough, wherein when loading the brush into the protector, the handle of the brush is inserted through the opening until the housing engages the shoulder such that the bristles enter the shaper after the shoulders are engaged.

25 The protector is generally manufactured of a material that is suitable for immersion in a cleaning solution of water or other cleaning substance such as spirits. The material will preferably be a plastics material but may be a metal.

30 The protector of the invention includes a first portion and a second portion engageable with the first portion to close the protector. Generally speaking, the portions of the protector will engage each other to enclose the bristles of the paint brush and protect the bristles from damage.

The portions preferably include one or more hinge means to attach the portions relative to one another. Suitably, there is a single hinge located at one end of the portions. The hinge means can be any suitable hinge means. For example, the hinge means may be a series of corresponding tubular portions which are then
5 collocated and a hinge pin driven through the portions. Alternatively, the hinge means may be as simple as a fold line formed between the two portions allowing them to fold about the line.

Each portion may be substantially rectangular when viewed in plan, having a substantially planar body portion having a pair of side edges, a handle-end
10 edge and a bristle-end edge. The hinge is suitably located at the bristle-end edge of each of the portions. Alternatively, it is also acknowledged that the hinge may be at the handle end. Each portion suitably has a wall portion extending along three of the four edges of each portion, the edge not having the wall portion suitably being the hinged end. The wall portions extend substantially perpendicularly from the planar
15 body portion.

The wall portion may decrease in height from the handle-end of the protector to the bristle-end. Paint brushes are normally constructed such that the handle of the brush is thicker than the bristles where they attach to the handle and the bristles themselves taper from the handle-end of the brush to the extremity of the
20 bristles. The wall height of the wall portion of each portion at the handle-end of the portion will therefore generally be slightly greater than the thickness of the handle at that point. The wall height of the wall portion of each portion at the bristle-end of the portion will generally be slightly greater than the thickness of the bristles at that point. The wall portions may assist with maintaining the shape of the bristles as well as
25 further protecting the bristles from damage.

One of the portions is preferably slightly larger than the other portion meaning that the wall portions of the larger portion will, when the protector is closed, suitably surround the wall portions of the slightly smaller portion. The larger portion may also suitably have an opening through the handle-end of the portion to allow the
30 larger portion to be closed but still accommodate the handle of the brush. The opening may typically extend the entire height of the wall portion at the handle-end of the portion and a width appropriately suited to the width of the handle of the brush to

be contained. This may create a pair of tab portions out of the wall portion at the handle-end of the portion.

Each of the tab portions will preferably have a locking means located at the top of the tabs furthest from the planar body portion. The locking means will
5 generally be a bulbous portion which extends into the cavity formed for the brush. When the protector is closed, the bulbous portion will suitably engage the planar body portion of the other portion to maintain the protector in the closed condition until a force is applied. This may prevent or minimise accidental opening of the protector.

Alternatively, the locking means may be a bulbous portion or shaped
10 portion in the sidewall extending outwardly from the cavity. Suitably, each of the portions will be provided with a bulbous portion and the locking action may be such that the bulbous portion on one portion is forced to overlap with the bulbous portion on the other portion. Typically, one or more than one bulbous portion may be provided on each portion depending upon the configuration of the shaper and
15 particularly on whether the opening to accommodate the handle of the brush is at the hinge end or the opposing end.

At least one of the portions has a housing portion to engage and surround the shoulders of the brush leaving the bristles at least partially free. Preferably, the smaller of the two portions has the housing. The housing may suitably
20 be an enclosure which extends from the handle-end of the portion towards the bristle-end. Suitably, the housing is approximately equal in length to the attachment portion of the brush where the bristles attach to the handle. This portion is generally approximately 2.5cm in length but that dimension depends on the size of the brush. Suitably, the housing does not extend to the bristles of the brush.

25 The housing may be formed by a transverse extending wall member extending from the wall portion on one side of the portion to the wall portion on the other side. The housing portion has an opening therein to receive the handle of the brush therethrough. The opening is suitably in the end wall portion of the housing.

When loading the brush into the protector, the handle of the brush is
30 inserted through the opening until the housing engages the shoulder such that the bristles enter the shaper after the shoulders of the brush are engaged. This generally occurs on an angle. The bristles are then lowered into the cavity formed by the wall

portions and the larger portion is then closed on the smaller portion enclosing the brush.

Paint brushes are generally sold in a variety of standard sizes. The protector and shaper of the present invention will typically be available in a number of different sizes to accommodate the different sizes of brushes. Another important variation is that the protector may be available with an angled hinge. Paint brushes are available with an angled handle or with the bristles having an angled end. The protector may be adapted to facilitate brushes of this nature.

Brief Description of the Drawings.

Various embodiments of the invention will be described with reference to the following drawings, in which:

Figure 1 is a perspective side view of a paint brush protector and shaper according to a preferred embodiment of the present invention in the open condition.

Figure 2 is a perspective side view of the paint brush protector and shaper as illustrated in Figure 1 in the closed condition.

Figure 3 is a perspective side view of a paint brush protector and shaper as illustrated in Figures 1 and 2 in the closed condition with a brush loaded.

Detailed Description of the Invention.

According to a preferred embodiment of the present invention, a paint brush protector and shaper 10 is provided.

The paint brush protector and shaper 10 is designed to receive a paint brush having a handle, shoulders and bristles. The protector 10 has a first portion 11 and a second portion 12 engageable with the first portion 11 to close the protector 10. At least one of the portions has a housing portion 13 to engage and surround the shoulders of the brush leaving the bristles at least partially free. The housing portion 13 has an opening 14 therein to receive the handle of the brush therethrough. When loading the brush into the protector 10, the handle of the brush is inserted through the opening 14 until the housing 13 engages the shoulder of the brush such that the bristles enter the protector 10 after the shoulders of the brush are engaged.

The protector 10 is manufactured of a material that is suitable for immersion in a cleaning solution of water or other cleaning substance such as spirits. The material will generally be a plastics material.

The first 11 and second 12 portions engage each other to enclose the bristles of the paint brush and protect the bristles from damage.

The portions are joined by a hinge 15 located at one end of the portions. The hinge 15 illustrated in the figures is a series of corresponding tubular portions which are then collocated and a hinge pin driven through the portions.

Each portion is substantially rectangular when viewed in plan, having a substantially planar body portion having a pair of side edges, a handle-end edge and a bristle-end edge. The hinge 14 is located at the bristle-end edge of each of the portions. Each portion has a wall portion 17 extending along three of the four edges of each portion, the edge not having the wall portion 17 being the hinged end. The wall portions 17 extend substantially perpendicularly from the planar body portion 16.

The wall portion 17 decreases in height from the handle-end of the protector to the bristle-end. Paint brushes are normally constructed such that the handle of the brush is thicker than the bristles where they attach to the handle and the bristles themselves taper from the handle-end of the brush to the extremity of the bristles. The wall height of the wall portion 17 of each portion at the handle-end of the portion will therefore be slightly greater than the thickness of the handle at that point. The wall height of the wall portion 17 of each portion at the bristle-end of the portion will be slightly greater than the thickness of the bristles at that point. The wall portions 17 assist with maintaining the shape of the bristles as well as further protecting the bristles from damage.

One of the portions is preferably slightly larger than the other portion meaning that the wall portions 17 of the larger portion will, when the protector 10 is closed as illustrated in Figure 3, surround the wall portions 17 of the slightly smaller portion. The larger portion 12 will also suitably have an opening 18 through the handle-end of the portion to allow the larger portion 12 to be closed but still accommodate the handle of the brush. The opening 18 extends the entire height of the wall portion 17 at the handle-end of the portion and has a width appropriately suited to the width of the handle of the brush to be contained. This creates a pair of tab portions 19 out of the wall portion at the handle-end of the larger portion 12.

Each of the tab portions 19 has a bulbous portion locking means 20 which extends into the cavity 21 formed for the brush. When the protector 10 is

closed, the bulbous portion 20 will engage the planar body portion 16 of the other portion 11 to maintain the protector 10 in the closed condition until a force is applied.

The smaller of the portions 11 has a housing portion 13 to engage and surround the shoulders of the brush leaving the bristles at least partially free. The housing 13 is an enclosure which extends from the handle-end of the portion towards the bristle-end. The housing 13 is approximately equal in length to the attachment portion of the brush where the bristles attach to the handle. This portion is generally approximately 2.5cm in length but that dimension depends on the size of the brush. Suitably, the housing 13 does not extend to the bristles of the brush.

The housing 13 is formed by a transverse extending wall member 22 extending from the wall portion 17 on one side of the portion 11 to the wall portion 17 on the other side. The housing portion 13 has the opening 14 to receive the handle of the brush therethrough in the end wall portion of the housing 13.

When loading the brush into the protector, the handle of the brush is inserted through the opening 14 until the housing 13 engages the shoulder such that the bristles enter the protector 10 after the shoulders of the brush are engaged. This generally occurs on an angle. The bristles are then lowered into the cavity 21 formed by the wall portions 17 and the larger portion 12 is then closed on the smaller portion 11 enclosing the brush.

The protector and shaper 10 of the present invention will typically be available in a number of different sizes. Examples of the sizes available to suit the different sizes of brushes is as follows (Dimensions illustrated in Figure 1):

A	B	C
38mm	13mm	115mm
50mm	16mm	120mm
63mm	17mm	125mm
75mm	17mm	140mm
75mm	24mm	135mm
88mm	20mm	140mm
88mm	24mm	140mm

100mm	20mm	145mm
100mm	24mm	150mm

A further embodiment of the present invention is illustrated in Figures 4 to 6. According to this embodiment, each of the portions 11, 12 is provided with a bulbous portion 20 and the locking action is such that the bulbous portion 20 on one portion 11 is forced to overlap with the bulbous portion 20 on the other portion 12. According to this embodiment, the shaper lacks a housing.

In the present specification and claims, the word "comprising" and its derivatives including "comprises" and "comprise" include each of the stated integers but does not exclude the inclusion of one or more further integers.

Reference throughout this specification to "one embodiment" or "an embodiment" means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, the appearance of the phrases "in one embodiment" or "in an embodiment" in various places throughout this specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures, or characteristics may be combined in any suitable manner in one or more combinations.

In compliance with the statute, the invention has been described in language more or less specific to structural or methodical features. It is to be understood that the invention is not limited to specific features shown or described since the means herein described comprises preferred forms of putting the invention into effect. The invention is, therefore, claimed in any of its forms or modifications within the proper scope of the appended claims appropriately interpreted by those skilled in the art.

Claims

1. A paint brush protector and shaper for a paint brush having a handle, shoulders and bristles, the protector including a first portion and a second portion, each portion provided with at least one sidewall with at least a pair of an engagement assembly
5 wherein the parts of the engagement assembly are engageable to close the protector.
2. A paint brush protector and shaper for a paint brush having a handle, shoulders and bristles, the protector including a first portion and a second portion engageable with the first portion to close the protector, at least one of the portions having a housing portion to engage and surround the shoulders of the brush leaving the bristles
10 free on at least one side, the housing portion having an opening therein to receive the handle of the brush therethrough wherein when loading the brush into the protector, the handle of the brush is inserted through the opening until the housing engages the shoulder such that the bristles enter the shaper after the shoulders are engaged.
3. The paint brush protector and shaper according to claim 1 including one or
15 more hinge means to attach the portions relative to one another.
4. The paint brush protector and shaper according to claim 1 wherein each portion has a substantially planar body portion having a pair of side edges, a handle-end edge and a bristle-end edge, each portion having a wall portion extending along three of the four edges of each portion, the edge not having the wall portion being the
20 hinged end, the wall portions extend substantially perpendicularly from the planar body portion.
5. The paint brush protector and shaper according to claim 4 wherein one of the portions is slightly larger than the other portion such that the wall portions of the larger portion will, when the protector is closed, surround the wall portions of the
25 slightly smaller portion.
6. The paint brush protector and shaper according to claim 4 wherein the wall portions extending along each side edge of each portion decreases in height from the handle-end of the protector to the bristle-end.
7. The paint brush protector and shaper according to claim 2 wherein the housing
30 includes an enclosure which extends from the handle-end of the portion towards the bristle-end, the housing not extending to the bristles of the brush
8. The paint brush protector and shaper according to claim 2 wherein the housing

includes an enclosure formed between at least two sidewalls of the a first portion of the shaper with the opening defined in a handle-end sidewall.

9. The paint brush protector and shaper according to claim 8 wherein the other of the portions includes an opening extending the entire height of the sidewall portion at the handle-end of the portion, creating a pair of tab portions out of the sidewall portion at the handle-end of the portion.

10. The paint brush protector and shaper according to claim 9 wherein each of the tab portions has a locking means which when the protector is closed, engage the other portion to maintain the protector in the closed condition until a force is applied.

AMENDED CLAIMS

[(received by the International Bureau on 12 December 2005 (12.12.05);
original claims 1-2 amended; remaining claims 3-10 unchanged (2 pages)]

1. A paint brush protector and shaper for a paint brush having a handle, shoulders and bristles, the protector including a first portion and a second portion, each portion provided with
 - 5 a. at least one sidewall with at least a part of an engagement assembly wherein the parts of the engagement assembly are engageable to close the protector; and
 - b. at least a portion of an opening in a sidewall such that when the protector is closed, the respective portions of the opening correspond to
10 receive and engage the handle of the brush.
2. A paint brush protector and shaper according to claim 1 wherein, at least one of the portions has a housing portion to engage and surround the shoulders of the brush leaving the bristles free on at least one side, the housing portion having an opening therein to receive the handle of the brush therethrough wherein when loading
15 the brush into the protector, the handle of the brush is inserted through the opening until the housing engages the shoulder such that the bristles enter the shaper after the shoulders are engaged.
3. The paint brush protector and shaper according to claim 1 including one or more hinge means to attach the portions relative to one another.
- 20 4. The paint brush protector and shaper according to claim 1 wherein each portion has a substantially planar body portion having a pair of side edges, a handle-end edge and a bristle-end edge, each portion having a wall portion extending along three of the four edges of each portion, the edge not having the wall portion being the hinged end, the wall portions extend substantially perpendicularly from the planar
25 body portion.
5. The paint brush protector and shaper according to claim 4 wherein one of the portions is slightly larger than the other portion such that the wall portions of the larger portion will, when the protector is closed, surround the wall portions of the slightly smaller portion.
- 30 6. The paint brush protector and shaper according to claim 4 wherein the wall portions extending along each side edge of each portion decreases in height from the handle-end of the protector to the bristle-end.

7. The paint brush protector and shaper according to claim 2 wherein the housing includes an enclosure which extends from the handle-end of the portion towards the bristle-end, the housing not extending to the bristles of the brush

8. The paint brush protector and shaper according to claim 2 wherein the housing
5 includes an enclosure formed between at least two sidewalls of the a first portion of the shaper with the opening defined in a handle-end sidewall.

9. The paint brush protector and shaper according to claim 8 wherein the other of
the portions includes an opening extending the entire height of the sidewall portion at
the handle-end of the portion, creating a pair of tab portions out of the sidewall
10 portion at the handle-end of the portion.

10. The paint brush protector and shaper according to claim 9 wherein each of the
tab portions has a locking means which when the protector is closed, engage the other
portion to maintain the protector in the closed condition until a force is applied.

1/4

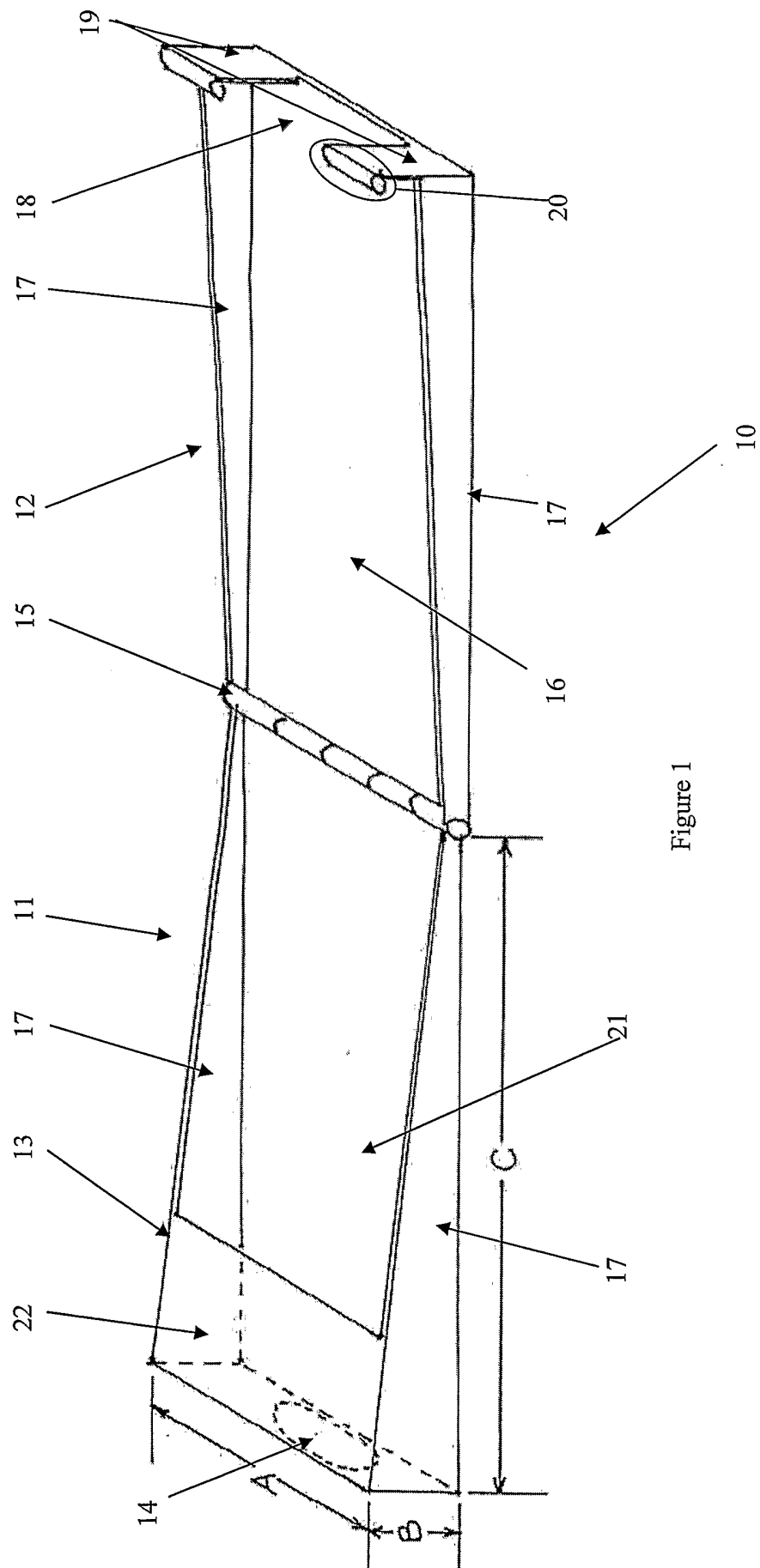


Figure 1

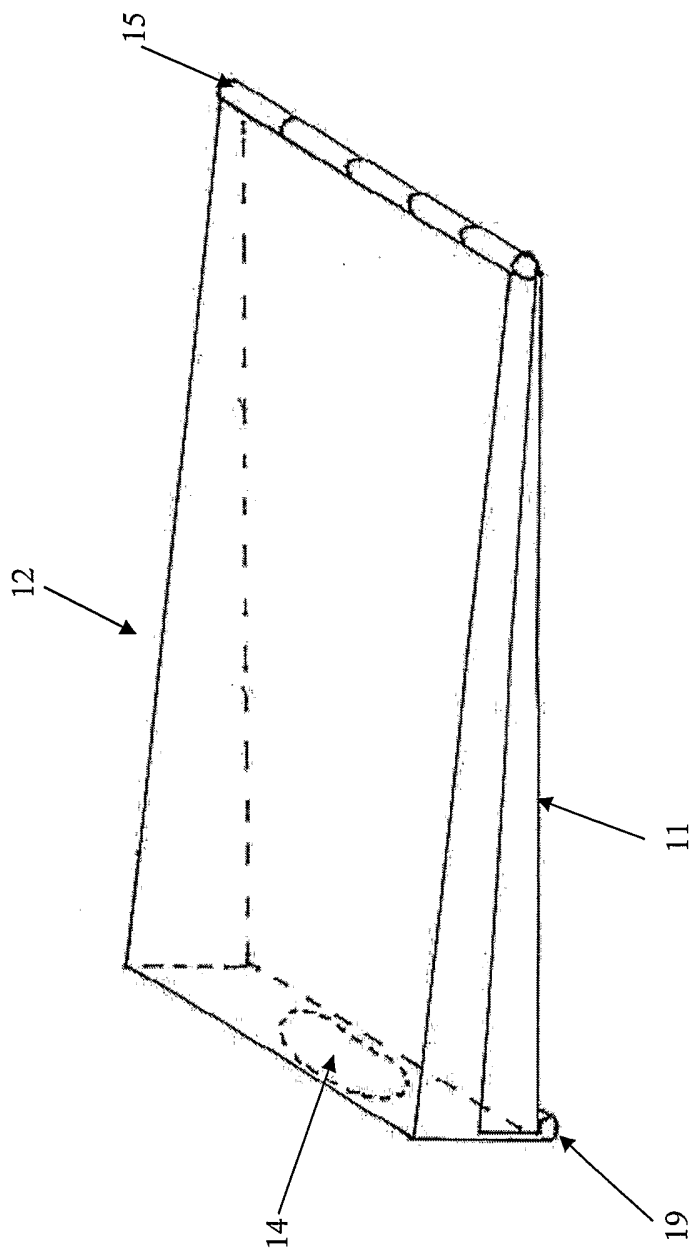


Figure 2

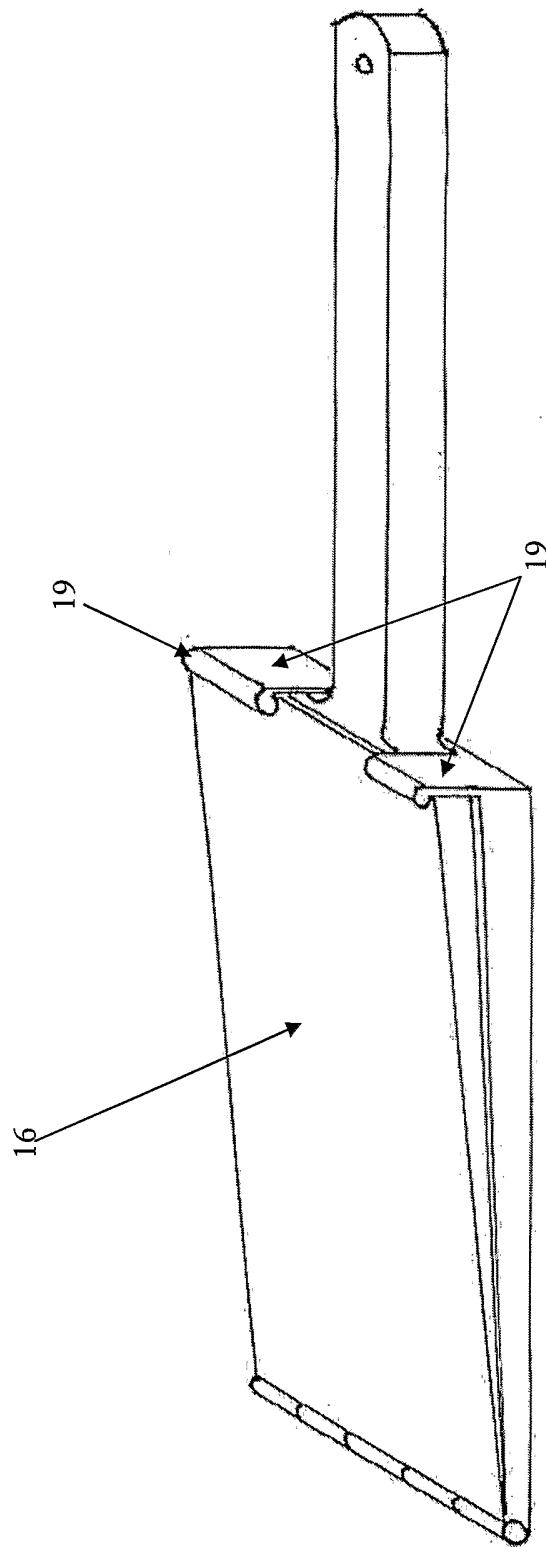


Figure 3

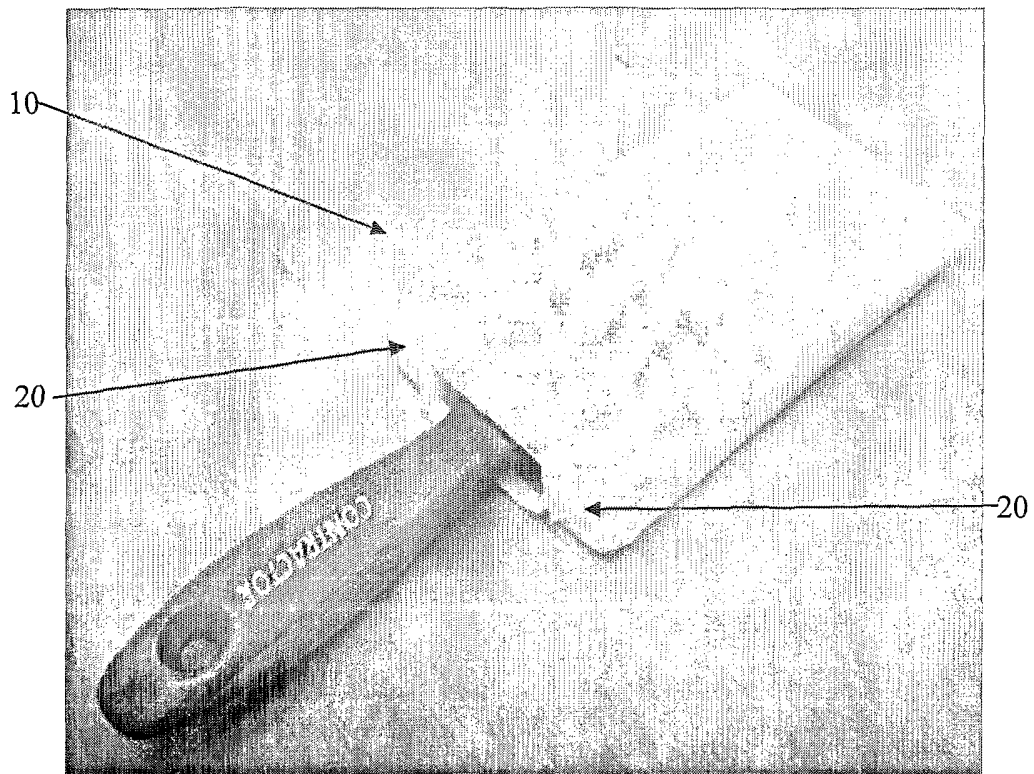


Figure 4

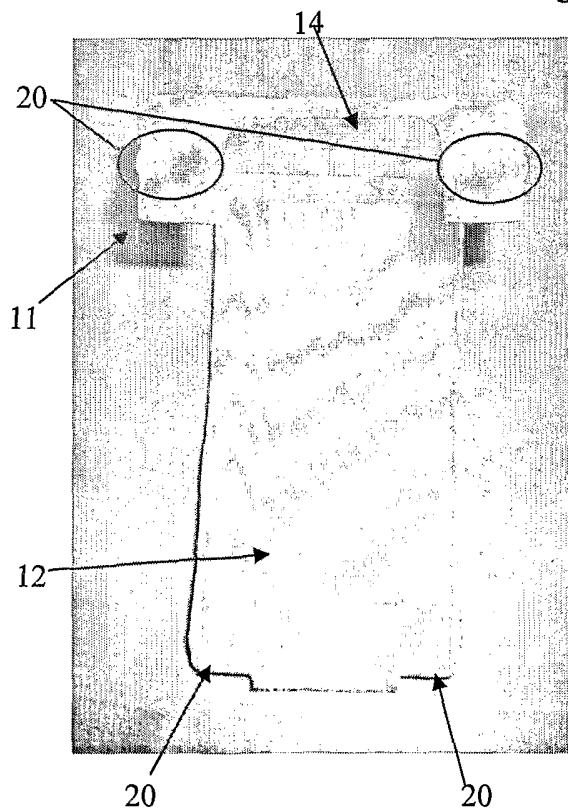


Figure 5

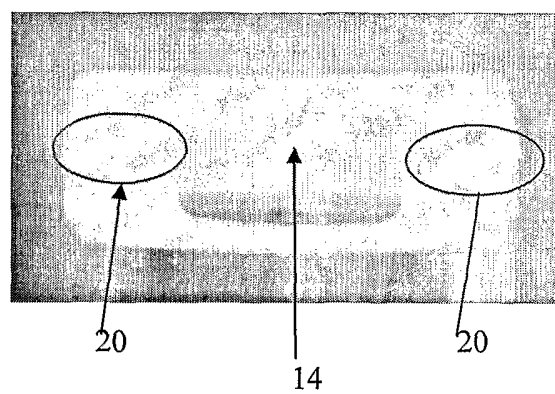


Figure 6

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2005/001247

A. CLASSIFICATION OF SUBJECT MATTER Int. Cl. ⁷ : B44D 3/12, A46B 17/04 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI IPC: B44D 3/12, A46B 17/00, A46B 17/04, B05C 21/00 & KEYWORDS BRUSH, BRISTLE, PROTECT, GUARD, COVER, SECURE, SHAPE, CONTOUR, PROFILE & OTHERS, ESPACENET KEYWORDS PAINT BRUSH, PROTECTOR & OTHERS		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004320 A (HANSON) 11 June 1935 see entire specification	1-10
X	US 2767830 A (LEVY ET AL) 23 October 1956 see entire specification	1-10
X	US 1851521 A (OLSEN) 29 March 1932 see entire specification	1, 3
X	US 1834374 A (BERG) 1 December 1931 see entire specification	1
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 15 November 2005		Date of mailing of the international search report 21 NOV 2005
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929		Authorized officer M.S. HAYNES Telephone No : (02) 6283 2170

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2005/001247

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 38680/93 B (668931) (VACIRCA) 23 May 1996 see abstract	1
X	US D436450 S (WILSON) 23 January 2001 see drawings	1