

Specification for

**Painters' and  
decorators' brushes for  
local authorities and  
public institutions  
(excluding quality of  
fillings)**

Confirmed  
November 2008

## Co-operating organizations

The Brooms and Brushes Committee, under whose supervision this British Standard was prepared, consists of representatives from the following organizations:

Association of Hospital and Welfare Administrators  
 Association of Municipal Corporations\*  
 British Brush Manufacturers Association\*  
 British Brush Manufacturers Research Association\*  
 British Railways Board\*  
 Crown Agents for Oversea Governments and Administrations\*  
 Greater London Council\*  
 Institute of Public Cleansing  
 Institute of Purchasing and Supply\*  
 London Transport Executive  
 Ministry of Defence, Army Department\*  
 Ministry of Defence, Navy Department\*  
 Ministry of Public Building and Works\*

The organizations marked with an asterisk in the above list were directly represented on the committee entrusted with the preparation of this British Standard.

This British Standard, having been approved by the Brooms and Brushes Committee, was published under the authority of the Executive Board on 10 September 1970

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## Foreword

This standard makes references to the following British Standard:

BS 509, *Acetone*.

This British Standard, first published in 1958, was based on recommendations prepared by the Local Authorities Standards Advisory Committee and the Hospital Equipment Standards Advisory Committee, and developed in collaboration with brush manufacturers.

In drafting the requirements the technical committee concerned also took account as far as possible of the needs of Government departments and the Services.

The changes made in this revision of the standard are intended to bring the requirements into line with the changeover to metric measurements.

A method for determining the weight of filling material is described in Appendix A.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 40, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

## 1 Scope

This British Standard specifies dimensional requirements for a range of painters' and decorators' brushes for use by Government departments, local authorities and other large-scale users. It includes requirements for the weight of filling materials, but does not specify the quality of those materials. The items dealt with are:

- Distemper brushes
- Washdown and lime-wash brushes
- Paint brushes
- Round and flat fitches and lining tools
- Glue brushes
- Sash tools
- Tar brushes
- Varnish brushes
- Paper-hangers' smoothing brushes
- Jamb dusters
- Flat distemper brushes
- Stencil brushes
- Squirrel hair lacquer brushes.

NOTE Some typical patterns which may be supplied against these specifications are illustrated in the text for guidance in checking dimensions. They do not constitute part of the standard requirements.

## 2 Definitions

For the purposes of this British Standard the following definitions apply:

### 2.1 hair

the hair of any animal

### 2.2 bristle

the hair of the hog, pig or boar only

## 3 Manufacture

Brushes shall be manufactured in accordance with the requirements given in the tables.

## 4 Fillings

### 4.1 Weight of fillings

4.1.1 The weights of fillings shown in the tables are minimum values.

4.1.2 Tests to determine the weight of filling shall be in accordance with the procedure described in Appendix A. All the brushes tested shall comply with the requirements given in the tables in respect of filling weight. Where weight is specified per dozen brushes there shall be no unreasonable variation between individual brushes.

### 4.2 Length of fillings

4.2.1 Fillings shall be of sufficient length to allow them to be securely held in the ferrule or other specified fixing and to meet the requirements given in the tables.

4.2.2 The proportion of filaments of a shorter length than is specified shall be the minimum necessary to achieve a brush of satisfactory taper and solidity. Brushes shall contain no greater proportion of short filaments than is present in the approved sample (see Clause 5).

4.3 **Mixture fillings.** In all cases where an unspecified mixture filling is prescribed in the tables, the nature and proportions of its constituents shall be the subject of agreement between the supplier and the purchaser.

4.4 **Disinfection.** All filling materials shall be disinfected as required by and in accordance with Home Office Regulations, S.R.O. obtainable from H.M. Stationery Office.

## 5 Approved sample

A sample submitted by the supplier and approved by the purchaser shall constitute the standard in respect of quality and composition of filling material, solidity of dressing (percentage of filaments of any lengths less than the top length) and any other properties not defined in this specification.

## 6 Setting media

Brushes set in vulcanized rubber or synthetic resin shall be capable of withstanding immersion for 48 hours in acetone to BS 509<sup>1)</sup>, without loosening of the heads and without the development of softening or other defects in the setting such as to impair their general serviceability. For the purposes of this requirement the brushes shall be suspended in the solvent with the filling and one quarter of the ferrule immersed.

<sup>1)</sup> BS 509, "Acetone".

## 7 Other materials

Handles shall be made of either wood or polypropylene.

Wood used for handles, stocks and other parts shall be suitably seasoned and free from decay, splits and other defects. The grain shall run parallel to the length of the handle or part. Where ramin is used, it shall be sanded to a smooth finish.

NOTE Polypropylene handles may be of the structural foam type and should contain no more than 30 % of fillers.

## 8 Ferrule dimensions

The ferrule dimensions specified in the tables are internal, measured as the diameter for round ferrules, and thickness at the point where the radius of the ends meet the parallel sides for flat sided ferrules, together with the overall distance between end circumferences. The dimensions shall be subject to the following tolerances:

|                    |               |            |
|--------------------|---------------|------------|
| Diameter or width: | 6 mm brushes  | 0.35 mm    |
|                    | 12 mm brushes | 0.70 mm    |
|                    | 18 mm brushes | 1.05 mm    |
|                    | Other sizes   | + 5 % – 0  |
| Thickness:         |               | + 2½ % – 0 |

The specified gauges and depths of ferrules are minima.

## 9 Identification

Brushes complying with this British Standard shall be identified by the following statement, either in the contract of sale or on the invoice, and in no other way:

“This brush complies/these brushes comply with BS 2992, which lays down requirements for dimensions and weight of fillings only, and not for the quality of fillings.”

Manufacturers identifying their products by reference to the British Standard shall satisfy themselves that the brushes comply with all the requirements, including the approval of a sample in accordance with Clause 5.

Table 1 — Requirements for distemper brushes

| Item No. | Description                              | Handles           |   |   |                                    |
|----------|--|-------------------|---|---|------------------------------------|
|          |  | Wood              | Approximate measurements                  |   |                                    |
|          |  |                   | Length out of binding or ferrule <i>A</i> | Breadth under binding or ferrule <i>B</i> | Thickness under binding or ferrule |
|          |  | mm                | mm  | mm  |                                    |
| 1/1      | Distemper brush, 2-knot 280 g (tied)     | Beech or sycamore | 225                                       | 110                                       | 14                                 |
| 1/1A     | Distemper brush, 2-knot 280 g (ferruled) | Beech or sycamore | 225                                       | 120                                       | 14                                 |
| 1/2      | Distemper brush, 2-knot 250 g (tied)     | Beech or sycamore | 225                                       | 105                                       | 14                                 |
| 1/2A     | Distemper brush, 2-knot 250 g (ferruled) | Beech or sycamore | 225                                       | 110                                       | 14                                 |

<sup>a</sup> See Clause 5: Approved sample.

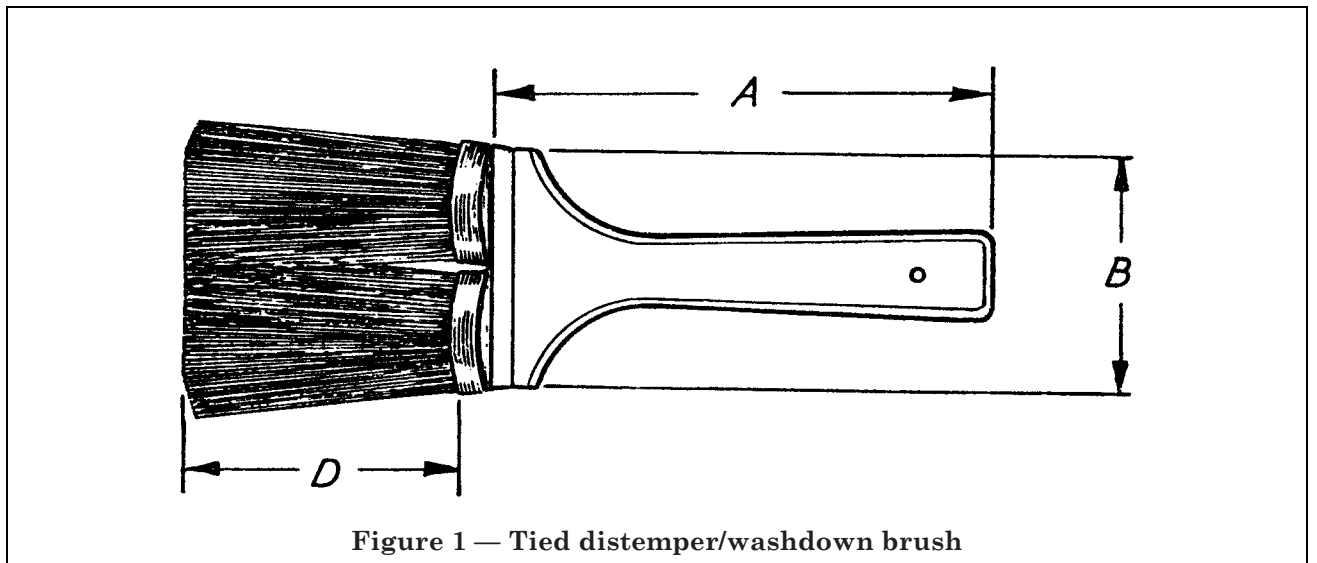


Figure 1 — Tied distemper/washdown brush

Table 1 — Requirements for distemper brushes

| Binding wire of ferrule  | Details of fillings      |                           |  | Finish etc.   |
|--|--------------------------|---------------------------|--|---|
|  | Description <sup>a</sup> | Weight per brush finished | Minimum length above binding or ferrule <i>D</i> |   |
| Copper shouldered: bound 12 rounds 1 mm diameter copper wire         | 100 % bristle            | 280<br>g                  | 135<br>mm  | —   |
| Half-hard copper solid-drawn 1 mm thick                              | 100 % bristle            | 280                       | 135  | Ferrule turned in over bristle: set in vulcanized rubber (see Clause 6) |
| Copper shouldered 1 mm diameter bound 12 rounds copper wire soldered | 100 % bristle            | 250                       | 135  | —   |
| Half-hard copper solid-drawn 1 mm thick                              | 100 % bristle            | 250                       | 135  | Ferrule turned in over bristle; set in vulcanized rubber (see Clause 6) |

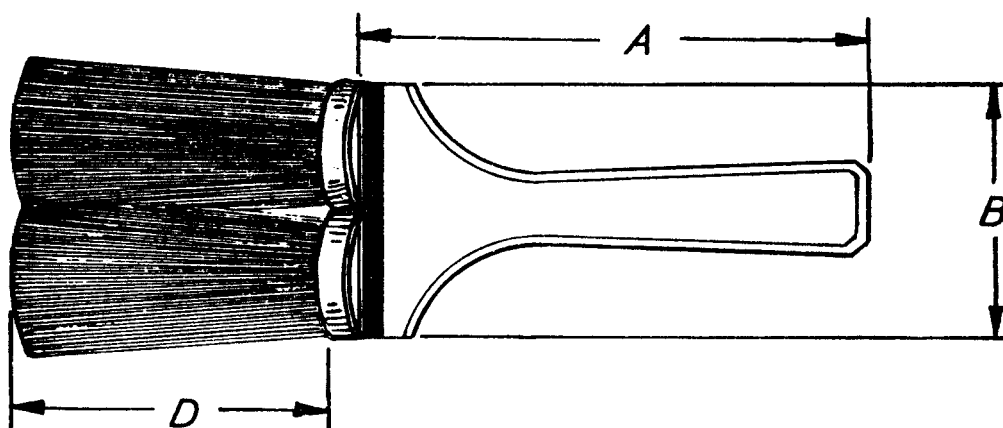


Figure 2 — Ferruled distemper/washdown brush



Table 2 — Requirements for washdown and lime-wash brushes

| Item No. | Description                                  | Handles           |  |  |                                    |
|----------|--|-------------------|--|--|------------------------------------|
|          |  | Wood              | Approximate measurements                     |  |                                    |
|          |  |                   | Length out of binding or ferrule<br><i>A</i> | Breadth under binding or ferrule<br><i>B</i> | Thickness under binding or ferrule |
|          |  | mm                | mm   | mm   |                                    |
| 2/1      | Washdown brush, 2-knot, 225 g (tied)         | Beech or sycamore | 210  | 115  | 14                                 |
| 2/1A     | Washdown brush, 2-knot 225 g (oval ferruled) | Beech or sycamore | 210  | 115  | 14                                 |
| 2/2      | Limewash brush, 2-knot, 280 g (tied)         | Beech or sycamore | 225  | 115  | 14                                 |

<sup>a</sup> See Clause 5: Approved sample.  
<sup>b</sup> See 4.3: Mixture fillings.

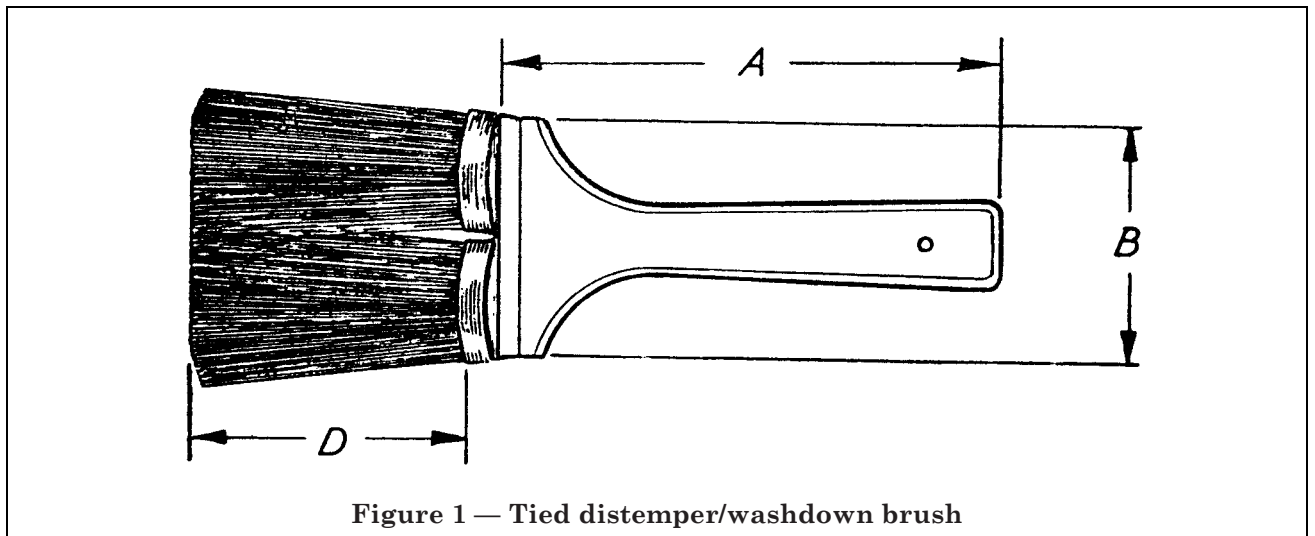


Figure 1 — Tied distemper/washdown brush

Table 2 — Requirements for washdown and lime-wash brushes

| Binding wire of ferrule   | Details of fillings      |                           |   | Finish etc.   |
|---|--------------------------|---------------------------|---|---|
|   | Description <sup>a</sup> | Weight per brush finished | Minimum length above binding or ferrule $D$ |   |
| Copper shouldered: 1 mm diameter bound 12 rounds copper wire soldered | Mixture <sup>b</sup>     | g<br>225                  | mm<br>110                                   | —   |
| Half-hard copper, solid-drawn 1 mm                                    | Mixture <sup>b</sup>     | 225                       | 115   | Ferrule turned in over filling: set in vulcanized rubber (see Clause 6) |
| Bound 12 rounds 1 mm diameter copper wire soldered                    | Istle (White mex fibre)  | 280                       | 135   | —   |

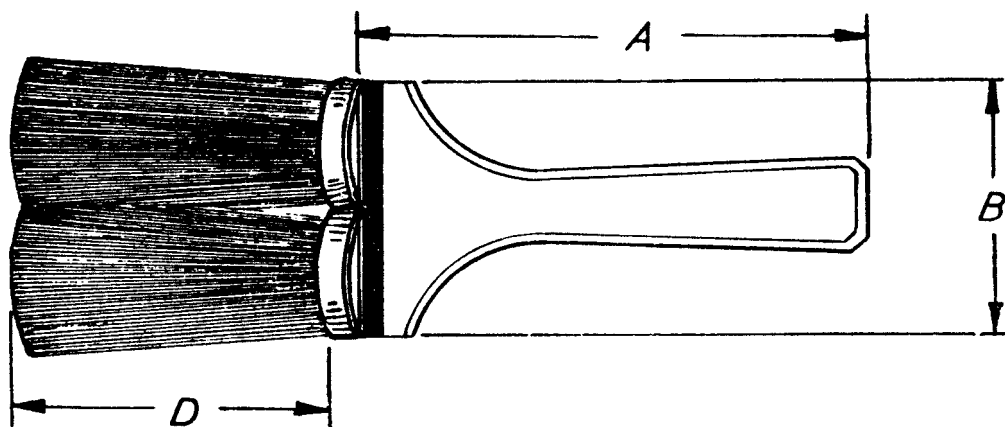


Figure 2 — Ferruled distemper/washdown brush

Table 3 — Requirements for one-knot paint brushes

| Item No. | Description                     | Handles           |  |  |                                    |
|----------|---------------------------------|-------------------|--|--|------------------------------------|
|          |                                 | Wood              | Approximate measurements                     |  |                                    |
|          |                                 |                   | Length out of binding or ferrule<br><i>A</i> | Breadth under binding or ferrule<br><i>B</i> | Thickness under binding or ferrule |
|          |                                 | mm                | mm   | mm   |                                    |
| 3/1      | Paint brush 8/0 (tied)          | Beech or sycamore | 200  | 68   | 15                                 |
| 3/1A     | Paint brush 8/0 (oval-ferruled) | Beech or sycamore | 200  | 68   | 15                                 |
| 3/2      | Paint brush 6/0 (tied)          | Beech or sycamore | 195  | 65   | 15                                 |
| 3/2A     | Paint brush 6/0 (oval-ferruled) | Beech or sycamore | 195  | 65   | 15                                 |

<sup>a</sup> See Clause 5: Approved sample.

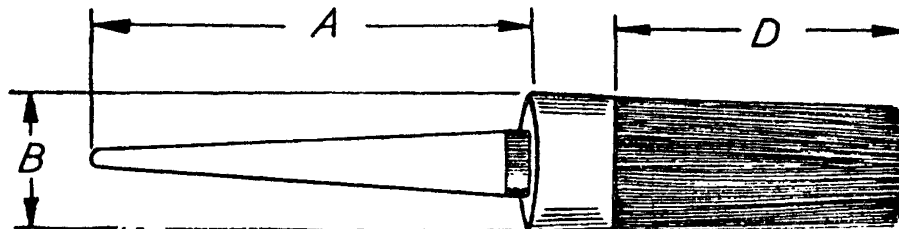


Figure 3 — Oval-ferruled one-knot paint brush

Table 3 — Requirements for one-knot paint brushes

| Binding wire of ferrule   | Details of fillings      |                           |  | Finish etc.  |
|---|--------------------------|---------------------------|--|--|
|   | Description <sup>a</sup> | Weight per brush finished | Minimum length above binding or ferrule <i>D</i> |  |
|   |                          | g                         | mm   |  |
| Copper shouldered: 1 mm diameter 12 rounds copper wire soldered | 100 % bristle            | 160                       | 120  | Fillings to be ground if specified by the purchaser  |
| Half-hard copper, solid-drawn 1 mm                              | 100 % bristle            | 155                       | 120  | Fillings to be ground if specified by the purchaser. Ferrule turned in over bristle: set in vulcanized rubber (see Clause 6) |
| Copper shouldered: 1 mm diameter 12 rounds copper wire soldered | 100 % bristle            | 155                       | 110  | Fillings to be ground if specified by the purchaser  |
| Half-hard copper, solid-drawn 1 mm                              | 100 % bristle            | 145                       | 110  | Fillings to be ground if specified by the purchaser. Ferrule turned in over bristle: set in vulcanized rubber (see Clause 6) |

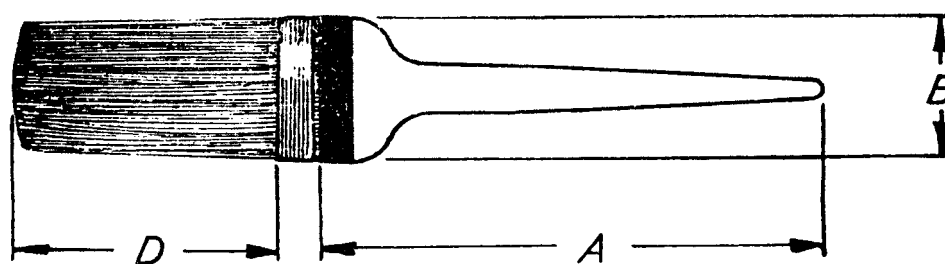


Figure 4 — Tied one-knot paint brush

Table 3 — Requirements for one-knot paint brushes

| Item No. | Description                     | Handles           |  |  |                                    |
|----------|---------------------------------|-------------------|--|--|------------------------------------|
|          |                                 | Wood              | Approximate measurements                     |  |                                    |
|          |                                 |                   | Length out of binding or ferrule<br><i>A</i> | Breadth under binding or ferrule<br><i>B</i> | Thickness under binding or ferrule |
|          |                                 | mm                | mm   | mm   |                                    |
| 3/3      | Paint brush 4/0 (tied)          | Beech or sycamore | 185  | 60   | 15                                 |
| 3/3A     | Paint brush 4/0 (over-ferruled) | Beech or sycamore | 185  | 60   | 15                                 |
| 3/4      | Paint brush 3/0 (tied)          | Beech or sycamore | 185  | 60   | 15                                 |
| 3/4A     | Paint brush 3/0 (oval-ferruled) | Beech or sycamore | 185  | 60   | 15                                 |

<sup>a</sup> See Clause 5: Approved sample.

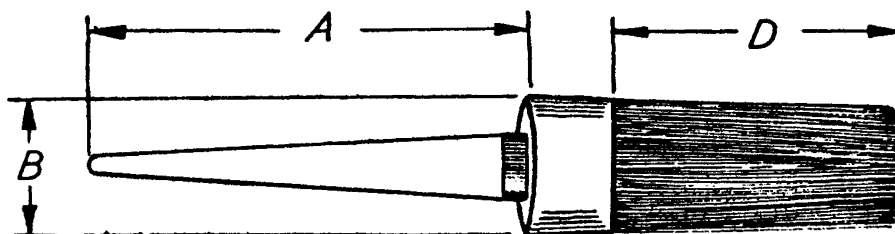


Figure 3 — Oval-ferruled one-knot paint brush

Table 3 — Requirements for one-knot paint brushes

| Binding wire of ferrule  | Details of fillings      |                           |  | Finish etc.  |
|--|--------------------------|---------------------------|--|--|
|  | Description <sup>a</sup> | Weight per brush finished | Minimum length above binding or ferrule <i>D</i> |  |
| Copper shouldered 1 mm diameter bound 12 rounds copper wire soldered | 100 % bristle            | g<br>140                  | mm<br>110  | Fillings to be ground if specified by the purchaser  |
| Half-hard copper, solid-drawn 1 mm                                   | 100 % bristle            | 135                       | 110  | Fillings to be ground if specified by the purchaser. Ferrule turned in over bristle: set in vulcanized rubber (see Clause 6) |
| Copper shouldered: 1 mm diameter bound copper wire soldered          | 100 % bristle            | 125                       | 100  | Fillings to be ground if specified by the purchaser  |
| Half-hard copper, solid-drawn 1 mm                                   | 100 % bristle            | 120                       | 100  | Fillings to be ground if specified by the purchaser. Ferrule turned in over bristle: set in vulcanized rubber (see Clause 6) |

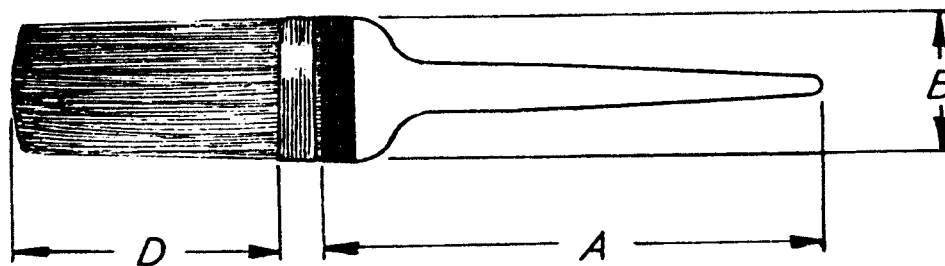


Figure 4 — Tied one-knot paint brush

Table 4 — Requirements for round and flat fitches and lining tools (slant liners)

| Item No. | Description              | Handles                               |                            |                                     | Ferrule   |
|----------|--------------------------|---------------------------------------|----------------------------|-------------------------------------|---|
|          |                          | Wood                                  | Approximate measurements   |                                     |   |
|          |                          |                                       | Length out of ferrule<br>A | Breadth and thickness under ferrule |   |
| 4/1      | Fitch, round:<br>Size 2  | Alder, beech,<br>birch or<br>sycamore | 250<br>mm                  | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 34 mm tapering from 6 mm to 3 mm     |
| 4/2      | Fitch, round:<br>Size 4  | Alder, beech,<br>birch or<br>sycamore | 250                        | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 37 mm tapering from 7.5 mm to 4.5 mm |
| 4/3      | Fitch, round:<br>Size 6  | Alder, beech,<br>birch or<br>sycamore | 250                        | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 40 mm tapering from 9 mm to 6 mm     |
| 4/4      | Fitch, round:<br>Size 8  | Alder, beech,<br>birch or<br>sycamore | 250                        | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 45 mm tapering from 12 mm to 9 mm    |
| 4/5      | Fitch, round:<br>Size 10 | Alder, beech,<br>birch or<br>sycamore | 250                        | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 48 mm tapering from 15 mm to 12 mm   |
| 4/6      | Fitch, round:<br>Size 12 | Alder, beech,<br>birch or<br>sycamore | 250                        | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 50 mm tapering from 18 mm to 15 mm   |
| 4/7      | Fitch, round:<br>Size 14 | Alder, beech,<br>birch or<br>sycamore | 250                        | To fit ferrule                      | Made of 0.23 mm thick tinned steel lapped and soldered: length 57 mm tapering from 22 mm to 18 mm   |

<sup>a</sup> See Clause 5: Approved sample.

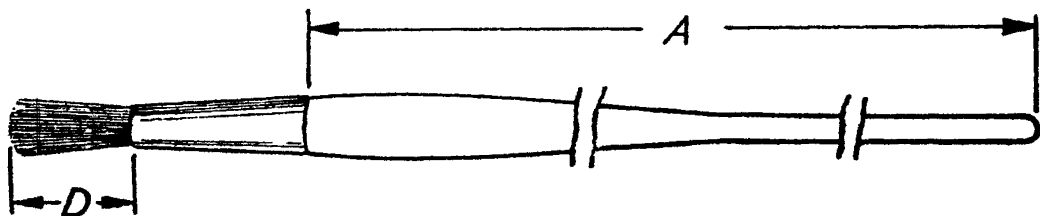


Figure 5 — Round fitch

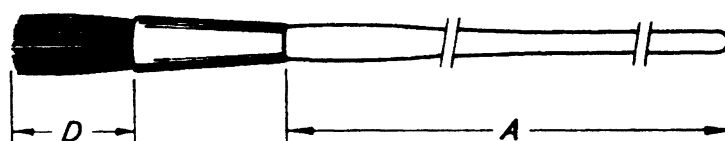


Figure 6 — Flat fitch

Table 4 — Requirements for round and flat fitches and lining tools (slant liners)

| Details of fillings      |                                   |                                       | Finish etc.   |
|--------------------------|-----------------------------------|---------------------------------------|---|
| Description <sup>a</sup> | Weight per dozen brushes finished | Minimum length above ferrule <i>D</i> |   |
| 100 % bristle            | 7 <sup>g</sup>                    | 15 <sup>mm</sup>                      | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 10.5                              | 22                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 17.5                              | 28                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 42                                | 35                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 84                                | 40                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 126                               | 45                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 196                               | 45                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |

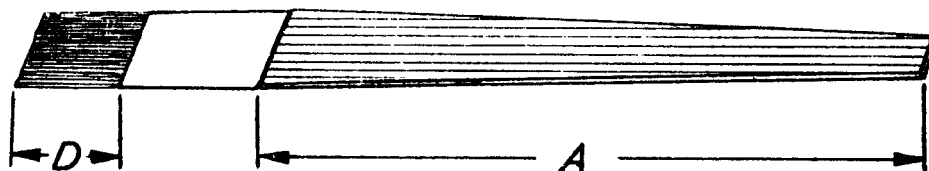


Figure 7 — Lining tool



Table 4 — Requirements for round and flat fitches and lining tools (slant liners)

| Item No. | Description             | Handles                                      |                          |                                     | Ferrule  |
|----------|-------------------------|--|--------------------------|-------------------------------------|--|
|          |                         | Wood   | Approximate measurements |                                     |  |
|          |                         |  | Length out of ferrule A  | Breadth and thickness under ferrule |  |
| 4/1A     | Fitch, flat:<br>Size 2  | Alder, beech,<br>birch, ramin<br>or sycamore | 250<br>mm                | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 4 mm i.d. flattened to a width of 6 mm   |
| 4/2A     | Fitch, flat:<br>Size 4  | Alder, beech,<br>birch, ramin<br>or sycamore | 250                      | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 5 mm i.d. flattened to a width of 7.5 mm |
| 4/3A     | Fitch, flat:<br>Size 6  | Alder, beech,<br>birch, ramin<br>or sycamore | 250                      | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 7 mm i.d. flattened to a width of 9 mm   |
| 4/4A     | Fitch, flat:<br>Size 8  | Alder, beech,<br>birch, ramin<br>or sycamore | 250                      | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 9 mm i.d. flattened to a width of 12 mm  |
| 4/5A     | Fitch, flat:<br>Size 10 | Alder, beech,<br>birch, ramin<br>or sycamore | 250                      | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 12 mm i.d. flattened to a width of 18 mm |
| 4/6A     | Fitch, flat:<br>Size 12 | Alder, beech,<br>birch, ramin<br>or sycamore | 250                      | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 15 mm i.d. flattened to a width of 22 mm |
| 4/7A     | Fitch, flat:<br>Size 14 | Alder, beech,<br>birch, ramin<br>or sycamore | 250                      | To fit ferrule                      | Parallel tube of 0.23 mm thick tinned steel lapped and soldered or aluminium/nickel-plated seamless brass 18 mm i.d. flattened to a width of 25 mm |

<sup>a</sup> See Clause 5: Approved sample.

Table 4 — Requirements for round and flat fitches and lining tools (slant liners)

| Details of fillings      |                                   |                                       | Finish etc.   |
|--------------------------|-----------------------------------|---------------------------------------|---|
| Description <sup>a</sup> | Weight per dozen brushes finished | Minimum length above ferrule <i>D</i> |   |
| 100 % bristle            | g<br>5                            | mm<br>15                              | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 8                                 | 22                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 16                                | 28                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 28                                | 35                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 68                                | 40                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 82                                | 45                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |
| 100 % bristle            | 123                               | 45                                    | Handles attached by beading or rolling in rear-end of ferrule: set in vulcanized rubber or synthetic resin (see Clause 6) |

Table 4 — Requirements for round and flat fitches and lining tools (slant liners)

| Item No. | Description                        | Handles                                |                            | Ferrule        |  |
|----------|------------------------------------|--|----------------------------|----------------|--|
|          |                                    | Wood                                   | Approximate measurements   |                |  |
|          |                                    |  | Length out of ferrule<br>A |                | Breadth and thickness under ferrule  |
| 4/8      | Lining tool (slant liner): (6 mm)  | Alder, beech, birch, ramin or sycamore | mm<br>200                  | To fit ferrule | Brass, copper, or tinned steel or nickel-plated steel: length 31 mm tapering from 4.5 mm to 3 mm |
| 4/9      | Lining tool (slant liner): (12 mm) | Alder, beech, birch, ramin or sycamore | 200                        | To fit ferrule | Brass, copper, or tinned steel or nickel-plated steel: length 32 mm tapering from 4.5 mm to 3 mm |
| 4/10     | Lining tool (slant liner): (18 mm) | Alder, beech, birch, ramin or sycamore | 200                        | To fit ferrule | Brass, copper, or tinned steel or nickel-plated steel: length 34 mm tapering from 4.5 mm to 3 mm |
| 4/11     | Lining tool (slant liner): (25 mm) | Alder, beech, birch, ramin or sycamore | 200                        | To fit ferrule | Brass, copper, or tinned steel or nickel-plated steel: length 36 mm tapering from 4.5 mm to 3 mm |

<sup>a</sup> See Clause 5: Approved sample.

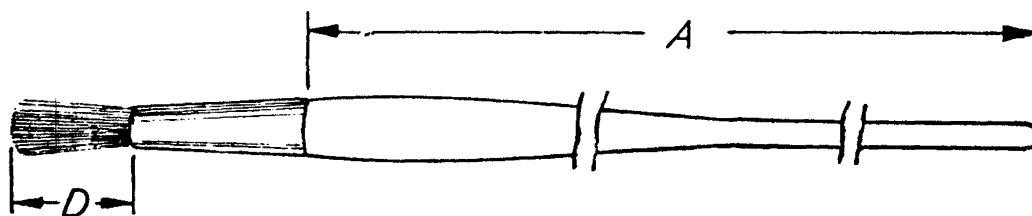


Figure 5 — Round fitch

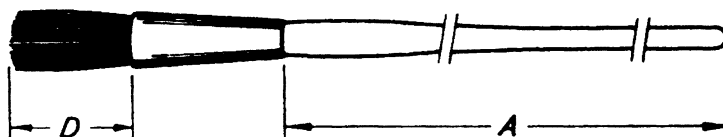


Figure 6 — Flat fitch

Table 4 — Requirements for round and flat fitches and lining tools (slant liners)

| Details of fillings      |                           |                                       | Finish etc.                               |
|--------------------------|---------------------------|---------------------------------------|---|
| Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |   |
|                          | g                         | mm                                    |   |
| 100 % bristle            | 0.5                       | 20                                    | Handles attached by pinning and clinching |
| 100 % bristle            | 1.75                      | 25                                    | Handles attached by pinning and clinching |
| 100 % bristle            | 2.5                       | 30                                    | Handles attached by pinning and clinching |
| 100 % bristle            | 4                         | 35                                    | Handles attached by pinning and clinching |

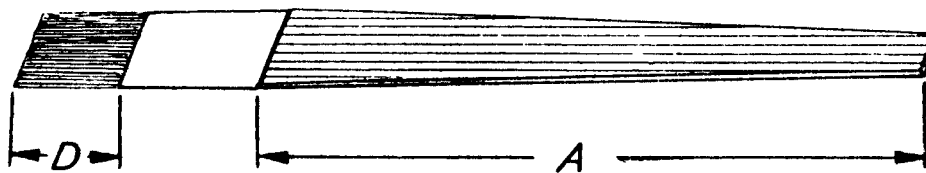


Figure 7 — Lining tool

Table 5 — Requirements for glue brushes

| Item No. | Description        | Handles                         |                            | Ferrule        |   |
|----------|--------------------|---------------------------------|----------------------------|----------------|---|
|          |                    | Wood                            | Approximate measurements   |                |   |
|          |                    |                                 | Length out of ferrule<br>A |                | Breadth and thickness under ferrule             |
| 5/1      | Glue brush (12 mm) | Alder, beech, birch or sycamore | mm<br>150                  | To fit ferrule | Steel ferrule 0.8 mm<br>Internal diameter 12 mm |
| 5/2      | Glue brush (18 mm) | Alder, beech, birch or sycamore | 160                        | To fit ferrule | Steel ferrule 0.8 mm<br>Internal diameter 18 mm |
| 5/3      | Glue brush (25 mm) | Alder, beech, birch or sycamore | 175                        | To fit ferrule | Steel ferrule 1 mm<br>Internal diameter 25 mm   |
| 5/4      | Glue brush (37 mm) | Alder, beech, birch or sycamore | 200                        | To fit ferrule | Steel ferrule 1 mm<br>Internal diameter 37 mm   |

<sup>a</sup> See Clause 5: Approved sample.  
<sup>b</sup> Bridles shall be of two strands of copper wire to grip at approximately one third of the visible length out. The diameter of the wire shall be as follows:  
 Items 5/1 and 5/2: 0.50 mm  
 Items 5/3 and 5/4: 0.80 mm

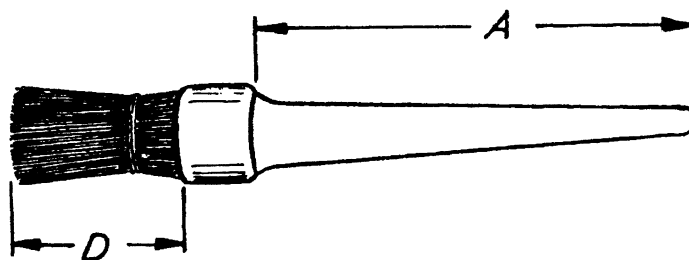


Figure 8 — Bridled glue brush

Table 5 — Requirements for glue brushes

| Details of fillings      |                           |                                       | Finish etc.   |
|--------------------------|---------------------------|---------------------------------------|---|
| Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |   |
| 100 % bristle            | g<br>10.5                 | mm<br>45                              | Ferrule compressed or turned in at both ends: set in vulcanized rubber. To be bridled if specified by the purchaser <sup>b</sup>                    |
| 100 % bristle            | 21                        | 45                                    | Ferrule compressed or turned in at both ends: set in vulcanized rubber or synthetic resin. To be bridled if specified by the purchaser <sup>b</sup> |
| 100 % bristle            | 28                        | 60                                    | Ferrule compressed or turned in at both ends: set in vulcanized rubber or synthetic resin. To be bridled if specified by the purchaser <sup>b</sup> |
| 100 % bristle            | 70                        | 70                                    | Ferrule compressed or turned in at both ends: set in vulcanized rubber. To be bridled if specified by the purchaser <sup>b</sup>                    |

Table 6 — Requirements for sash tools

| Item No. | Description                          | Handles                         |   |  | Binding twine or ferrule (dimensions are internal)                                |
|----------|--------------------------------------|---------------------------------|---|--|---|
|          |                                      | Wood                            | Approximate measurements                  |  |   |
|          |                                      |                                 | Overall length including ferrule <i>A</i> | Diameter under binding or ferrule <i>B</i> |   |
| 6/1      | Sash tool: Size 12 mm (ferruled)     | Alder, beech, birch or sycamore | 150<br>mm                                 | To fit ferrule<br>mm                       | Metal ferrule <sup>b</sup> .<br>Min. depth 16 mm<br>Diameter at bristle end 12 mm |
| 6/1A     | Sash tool: Size 12 mm (string-bound) | Alder, beech, birch or sycamore | 150                                       | 12   | Good quality hemp or flax twine   |
| 6/2      | Sash tool: Size 18 mm (ferruled)     | Alder, beech, birch or sycamore | 155                                       | To fit ferrule                             | Metal ferrule <sup>b</sup> .<br>Min. depth 16 mm<br>Diameter at bristle end 18 mm |
| 6/2A     | Sash tool: Size 18 mm (string-bound) | Alder, beech, birch or sycamore | 155                                       | 18   | Good quality hemp or flax twine   |
| 6/3      | Sash tool: Size 25 mm (ferruled)     | Alder, beech, birch or sycamore | 160                                       | To fit ferrule                             | Metal ferrule <sup>b</sup> .<br>Min. depth 18 mm<br>Diameter at bristle end 25 mm |
| 6/3A     | Sash tool: Size 12 mm (string-bound) | Alder, beech, birch or sycamore | 160                                       | 25   | Good quality hemp or twine  |

<sup>a</sup> See Clause 5: Approved sample.  
<sup>b</sup> Aluminium 0.56 mm or copper or mild steel 0.45 mm in diameter, which has been plated, painted or otherwise coated against rust.

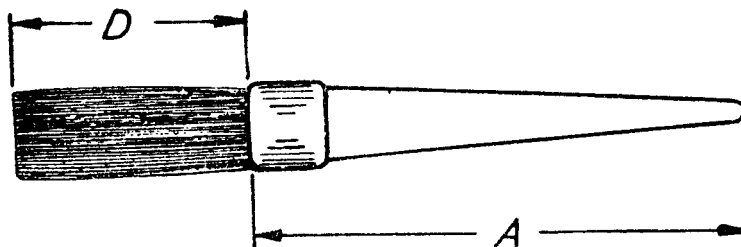


Figure 9 — Ferruled sash tool

Table 6 — Requirements for sash tools

| Details of fillings                 |                           |  | Finish etc.  |
|-------------------------------------|---------------------------|--|--|
| Description <sup>a</sup>            | Weight per brush finished | Minimum length above binding or ferrule <i>D</i> |  |
|                                     | g                         | mm   |  |
| 100 % bristle dressed solid to root | 6.25                      | 50   | Handle shall butt up to root of bristle. Set in vulcanized rubber, synthetic resin or marine glue. Ferrule compressed or turned in at both ends or at bristle ends only with other end securely pinned to handle |
| 100 % bristle dressed solid to flag | 7                         | 50   | Set in vulcanized rubber, synthetic resin or marine glue   |
| 100 % bristle dressed solid to root | 11.5                      | 55   | Handle shall butt up to root of bristle. Set in vulcanized rubber, synthetic resin or marine glue. Ferrule compressed or turned in at both ends or at bristle end only with other end securely pinned to handle  |
| 100 % bristle dressed solid to flag | 14                        | 55   | Set in vulcanized rubber, synthetic resin or marine glue   |
| 100 % bristle dressed solid to root | 23                        | 65   | Handle shall butt up to root of bristle. Set in vulcanized rubber, synthetic resin or marine glue. Ferrule compressed or turned in at both ends or at bristle end only with other end securely pinned to handle  |
| 100 % bristle dressed solid to flag | 28                        | 65   | Set in vulcanized rubber, synthetic resin or marine glue   |

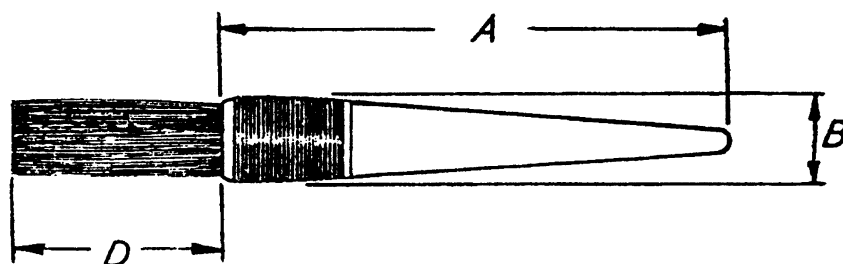


Figure 10 — String-bound sash tool



Table 6 — Requirements for sash tools

| Item No. | Description                                | Handles                               |   |  | Binding twine or ferrule (dimensions are internal)                                |
|----------|--|---------------------------------------|---|--|---|
|          |  | Wood                                  | Approximate measurements                  |  |   |
|          |  |                                       | Overall length including ferrule <i>A</i> | Diameter under binding or ferrule <i>B</i> |   |
| 6/4      | Sash tool:<br>Size 28 mm<br>(ferruled)     | Alder, beech,<br>birch or<br>sycamore | mm<br>170                                 | mm<br>To fit ferrule                       | Metal ferrule <sup>b</sup> .<br>Min. depth 18 mm<br>Diameter at bristle end 28 mm |
| 6/4A     | Sash tool:<br>Size 28 mm<br>(string-bound) | Alder, beech,<br>birch or<br>sycamore | 170                                       | 28   | Good quality hemp or flax twine   |
| 6/5      | Sash tool:<br>Size 30 mm<br>(ferruled)     | Alder, beech,<br>birch or<br>sycamore | 175                                       | To fit ferrule                             | Metal ferrule <sup>b</sup> .<br>Min. depth 30 mm<br>Diameter at bristle end 30 mm |
| 6/5A     | Sash tool:<br>Size 30 mm<br>(string-bound) | Alder, beech,<br>birch or<br>sycamore | 175                                       | 30   | Good quality hemp or flax twine   |
| 6/6      | Sash tool:<br>Size 37 mm<br>(ferruled)     | Alder, beech,<br>birch or<br>sycamore | 185                                       | To fit ferrule                             | Metal ferrule <sup>b</sup> .<br>Min. depth 30 mm<br>Diameter at bristle end 35 mm |
| 6/6A     | Sash tool:<br>Size 37 mm<br>(string-bound) | Alder, beech,<br>birch or<br>sycamore | 185                                       | 37   | Good quality hemp or flax twine   |

<sup>a</sup> See Clause 5: Approved sample.  
<sup>b</sup> Aluminium 0.56 mm or copper or mild steel 0.45 mm in diameter, which has been plated, painted or otherwise coated against rust.

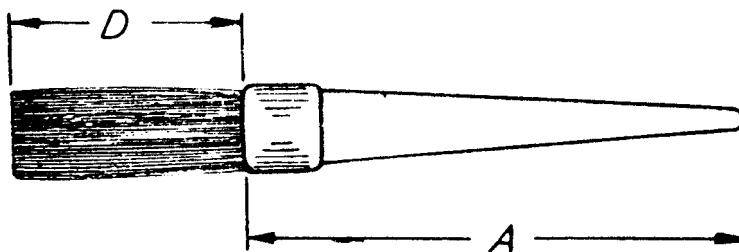


Figure 9 — Ferruled sash tool

Table 6 — Requirements for sash tools

| Description <sup>a</sup>            | Details of fillings       |   | Finish etc.  |
|-------------------------------------|---------------------------|---|--|
|                                     | Weight per brush finished | Minimum length above binding or ferrule<br><i>D</i> |  |
|                                     | g                         | mm  |  |
| 100 % bristle dressed solid to root | 34                        | 70  | Handle shall butt up to root of bristle. Set in vulcanized rubber, synthetic resin or marine glue. Ferrule compressed or turned in at both ends or at bristle end only with other end securely pinned to handle  |
| 100 % bristle dressed solid to root | 42                        | 75  | Set in vulcanized rubber, synthetic resin or marine glue   |
| 100 % bristle dressed solid to root | 42                        | 75  | Handle shall butt up to root of bristle. Set in vulcanized rubber, synthetic resin or marine glue. Ferrule compressed or turned in at both ends or at bristle end only with other end securely pinned to handle. |
| 100 % bristle dressed solid to root | 63                        | 80  | Set in vulcanized rubber, synthetic resin or marine glue   |
| 100 % bristle dressed solid to root | 63                        | 85  | Handle shall butt up to root of bristle. Set in vulcanized rubber, synthetic resin or marine glue. Ferrule compressed or turned in at both ends or at bristle end only with other end securely pinned to handle  |
| 100 % bristle dressed solid to flag | 77                        | 85  | Set in vulcanized rubber, synthetic resin or marine glue   |

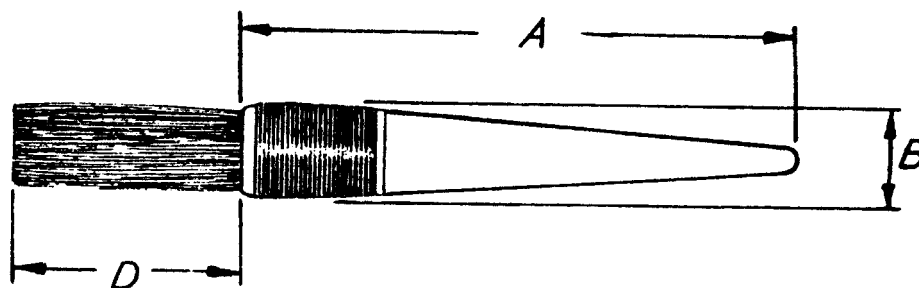


Figure 10 — String-bound sash tool

Table 7 — Requirements for tar brushes

| Item No. | Description       | Handles                         |                                | Ring                     |                                |
|----------|-------------------|---------------------------------|--------------------------------|--------------------------|--------------------------------|
|          |                   | Wood                            | Approximate measurements       |                          |                                |
|          |                   |                                 | Length out of ring<br><i>A</i> |                          | Diameter<br><i>B</i>           |
| 7/1      | Tar brush (short) | Alder, beech, birch or sycamore | mm<br>225                      | mm<br>30<br>(under ring) | Iron ring 50 mm × 22 mm nailed |
| 7/2      | Tar brush (long)  | Alder, beech, birch or sycamore | 1 350                          | 30                       | Iron ring 50 mm × 22 mm nailed |

<sup>a</sup> See Clause 5: Approved sample.

<sup>b</sup> The handle shall be set with its axis at 60° to the axis of the central plug unless otherwise agreed between the supplier and the purchaser.

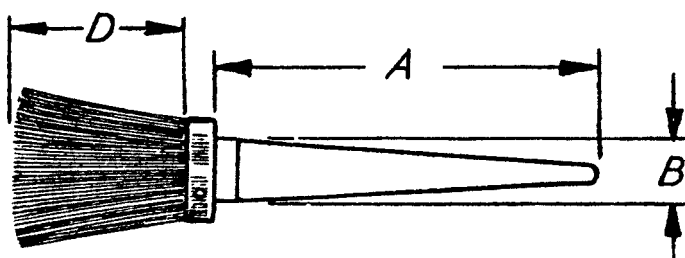


Figure 11 — Short tar brush

Table 7 — Requirements for tar brushes

| Details of fillings                             |                           |                                    | Finish etc.  |
|---|---------------------------|------------------------------------|--|
| Description <sup>a</sup>                        | Weight per brush finished | Minimum length above ring <i>D</i> |  |
|   | g                         | mm                                 |  |
| Equal parts of horsehair, coco fibre and kitool | 110                       | 90                                 | Nailed through ring into centre plug of brush with two nails: handle tapered   |
| Equal parts of horsehair, coco fibre and kitool | 110                       | 90                                 | Nailed through ring into centre plug of brush with two nails: handle tapered and nailed to head with three clout nails or bolted: heat set on at an angle <sup>b</sup> |

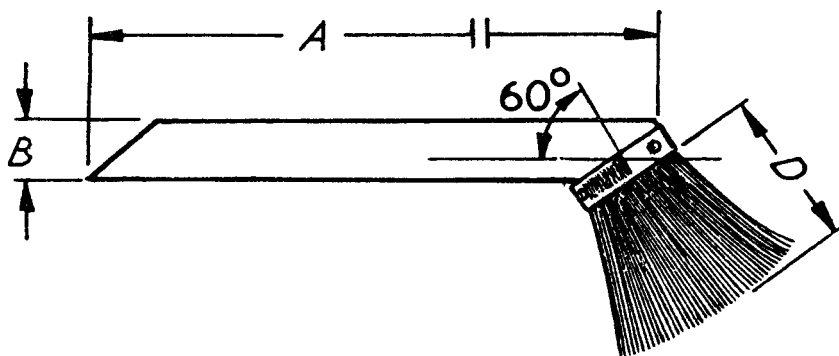


Figure 12 — Long tar brush

Table 8 — Requirements for varnish brushes

| Item No. | Description           | Handles                                   |                                |                                |                         |
|----------|-----------------------|---|--------------------------------|--------------------------------|-------------------------|
|          |                       | Material                                  | Approximate measurements       |                                |                         |
|          |                       |   | Length out of ferrule <i>A</i> | Breadth under ferrule <i>B</i> | Thickness under ferrule |
|          |                       | mm  | mm                             | mm                             |                         |
| 8/1      | Varnish brush, 12 mm  | Beech, birch or sycamore or polypropylene | 120                            | 12                             | 9                       |
| 8/2      | Varnish brush, 18 mm  | Beech, birch or sycamore or polypropylene | 125                            | 18                             | 11                      |
| 8/3      | Varnish brush, 25 mm  | Beech, birch or sycamore or polypropylene | 125                            | 25                             | 15                      |
| 8/4      | Varnish brush, 37 mm  | Beech, birch or sycamore or polypropylene | 130                            | 37                             | 15                      |
| 8/5      | Varnish brush, 50 mm  | Beech, birch or sycamore or polypropylene | 130                            | 50                             | 18                      |
| 8/6      | Varnish brush, 62 mm  | Beech, birch or sycamore or polypropylene | 140                            | 62                             | 22                      |
| 8/7      | Varnish brush, 75 mm  | Beech, birch or sycamore or polypropylene | 140                            | 75                             | 22                      |
| 8/8      | Varnish brush, 100 mm | Beech, birch or sycamore or polypropylene | 150                            | 100                            | 25                      |

<sup>a</sup> See Clause 5: Approved sample.

<sup>b</sup> Measurements for width and thickness are taken at inner surfaces of ferrules, at the point where the filling leaves the ferrule.

Table 8 — Requirements for varnish brushes

| Ferrule <sup>b</sup>   | Details of filling       |                           |                                       | Finish etc.  |
|--|--------------------------|---------------------------|---------------------------------------|--|
|  | Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |  |
| (min.)<br>0.16 mm<br>12 mm wide × 9 mm<br>thick × 30 mm deep | 100 %<br>bristle         | g<br>3                    | mm<br>40                              | Set in vulcanized rubber or synthetic resin (see Clause 6). Ferrule of tinned or nickel-plated steel (at option of purchaser) lapped and securely soldered or spot welded, except that ferrules for items 8/1 and 8/2 and 8/3A to 8/8A may be alternatively closed with folded seam.<br><br>Handles polished or plain as specified by purchaser. Bristle secured in ferrule either by pinning through ferrule and bristle with a minimum number of pins as follows: Items 8/1, 8/2, 8/3, 8/3A, 8/4, 8/4A, 8/5A, 8/6A and 8/7A — no pins; Items 8/5 and 8/6 — 2 pins; Item 8/7 — 3 pins; Items 8/8 and 8/8X — 4 pins or alternatively items 8/5, 8/6, 8/7, 8/8 and 8/8X may be secured by inserts; Item 8/8A secured by insert or 2 pins. The tips of all pins to be securely clinched down or rivetted.<br><br>Handles secured in ferrule by pinning on both sides the number of pins being as follows: Item 8/1 and 8/2 — no pins: pricked on or crimped on; Items 8/3, 8/3A, 8/4 and 8/4A — three pins (2 and 1); Items 8/5, 8/5A, 8/6, 8/6A, 8/7 and 8/7A — four pins (2 and 2); Items 8/8 and 8/8X — six pins (3 and 3); Item 8/8A — four pins (2 and 2). Alternatively if plastics handles are fitted, Items 8/3A, 8/4A and 8/5A may be firmly crimped on; and items 8/8 and 8/8X — 4 pins (2 and 2). |
| 0.16 mm<br>18 mm wide × 12 mm<br>thick × 30 mm deep          | 100 %<br>bristle         | 9                         | 45                                    |  |
| 0.25 mm<br>25 mm wide × 15 mm<br>thick × 34 mm deep          | 100 %<br>bristle         | 13                        | 50                                    |  |
| 0.25 mm<br>37 mm wide × 15 mm<br>thick × 37 mm deep          | 100 %<br>bristle         | 24                        | 55                                    |  |
| 0.28 mm<br>50 mm wide × 18 mm<br>thick × 38 mm deep          | 100 %<br>bristle         | 34                        | 60                                    |  |
| 0.28 mm<br>62 mm wide × 22 mm<br>thick × 41 mm deep          | 100 %<br>bristle         | 63                        | 70                                    |  |
| 0.31 mm<br>75 mm wide × 22 mm<br>thick × 41 mm deep          | 100 %<br>bristle         | 76                        | 75                                    |  |
| 0.31 mm<br>100 mm wide × 25 mm<br>thick × 43 mm deep         | 100 %<br>bristle         | 115                       | 85                                    |  |

Table 8 — Requirements for varnish brushes

| Item No. | Description           | Handles                                   |                          |                         |                         |
|----------|-----------------------|---|--------------------------|-------------------------|-------------------------|
|          |                       | Material                                  | Approximate measurements |                         |                         |
|          |                       |   | Length out of ferrule A  | Breadth under ferrule B | Thickness under ferrule |
|          |                       | mm  | mm                       | mm                      |                         |
| 8/8X     | Varnish brush, 100 mm | Beech, birch or sycamore or polypropylene | 150                      | 100                     | 22                      |
| 8/3A     | Varnish brush, 25 mm  | Beech, birch or sycamore or polypropylene | 125                      | 25                      | 12                      |
| 8/4A     | Varnish brush, 37 mm  | Beech, birch or sycamore or polypropylene | 130                      | 37                      | 12                      |
| 8/5A     | Varnish brush, 50 mm  | Beech, birch or sycamore or polypropylene | 130                      | 50                      | 14                      |
| 8/6A     | Varnish brush, 62 mm  | Beech, birch or sycamore or polypropylene | 135                      | 62                      | 15                      |
| 8/7A     | Varnish brush, 75 mm  | Beech, birch or sycamore or polypropylene | 140                      | 75                      | 15                      |
| 8/8A     | Varnish brush, 100 mm | Beech, birch or sycamore or polypropylene | 150                      | 100                     | 18                      |

<sup>a</sup> See Clause 5: Approved sample.

<sup>b</sup> Measurements for width and thickness are taken at inner surfaces of ferrules, at the point where the filling leaves the ferrule. See Clause 8.

Table 8 — Requirements for varnish brushes

| Ferrule <sup>b</sup>  | Details of filling       |                           |                                       | Finish etc.  |
|---|--------------------------|---------------------------|---------------------------------------|--|
|   | Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |  |
| (min.)<br>0.31 mm<br>100 mm wide × 22 mm thick × 43 mm deep | 100 % bristle            | g<br>105                  | mm<br>85                              | Set in vulcanized rubber or synthetic resin (see Clause 6). Ferrule of tinned or nickel-plated steel (at option of purchaser) lapped and securely soldered or spot welded, except that ferrules for items 8/1 and 8/2 and 8/3A to 8/8A may be alternatively closed with folded seam.<br><br>Handles polished or plain as specified by purchaser. Bristle secured in ferrule either by pinning through ferrule and bristle with a minimum number of pins as follows:<br>Items 8/1, 8/2, 8/3, 8/3A, 8/4, 8/4A, 8/5A, 8/6A and 8/7A — no pins; Items 8/5 and 8/6 — 2 pins; Item 8/7 — 3 pins; Items 8/8 and 8/8X — 4 pins or alternatively items 8/5, 8/6, 8/7, 8/8 and 8/8X may be secured by inserts; Item 8/8A secured by insert or 2 pins. The tips of all pins to be securely clinched down or rivetted. |
| 0.25 mm<br>25 mm wide × 12 mm thick × 34 mm deep            | 100 % bristle            | 9                         | 43                                    |  |
| 0.25 mm<br>37 mm wide × 12 mm thick × 34 mm deep            | 100 % bristle            | 14                        | 50                                    |  |
| 0.28 mm<br>50 mm wide × 14 mm thick × 38 mm deep            | 100 % bristle            | 21                        | 56                                    |  |
| 0.28 mm<br>62 mm wide × 15 mm thick × 38 mm deep            | 100 % bristle            | 28                        | 56                                    |  |
| 0.31 mm<br>75 mm wide × 15 mm thick × 38 mm deep            | 100 % bristle            | 38                        | 62                                    |  |
| 0.31 mm<br>100 mm wide × 15 mm thick × 38 mm deep           | 100 % bristle            | 56                        | 68                                    |  |

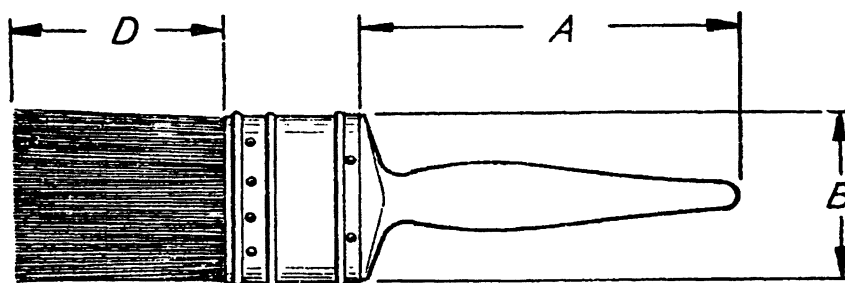


Figure 13 — Varnish brush



Table 9 — Requirements for paper-hangers' smoothing brushes

| Item No. | Description  | Handles              |                           |                   |           |
|----------|--|----------------------|---------------------------|-------------------|-----------|
|          |  | Wood                 | Approximate measurements  |                   |           |
|          |  |                      | Overall width<br><i>A</i> | Depth<br><i>B</i> | Thickness |
|          |  |                      | mm                        | mm                | mm        |
| 9/1      | Paper-hangers' smoothing brush<br>(pitch-set or synthetic resin set) | Beech or<br>sycamore | 225                       | 62                | 37        |
| 9/2      | Paper-hangers' smoothing brush<br>(ferruled)                         | Beech or<br>sycamore | 200                       | 62                | 18        |

<sup>a</sup> See Clause 5: Approved sample.

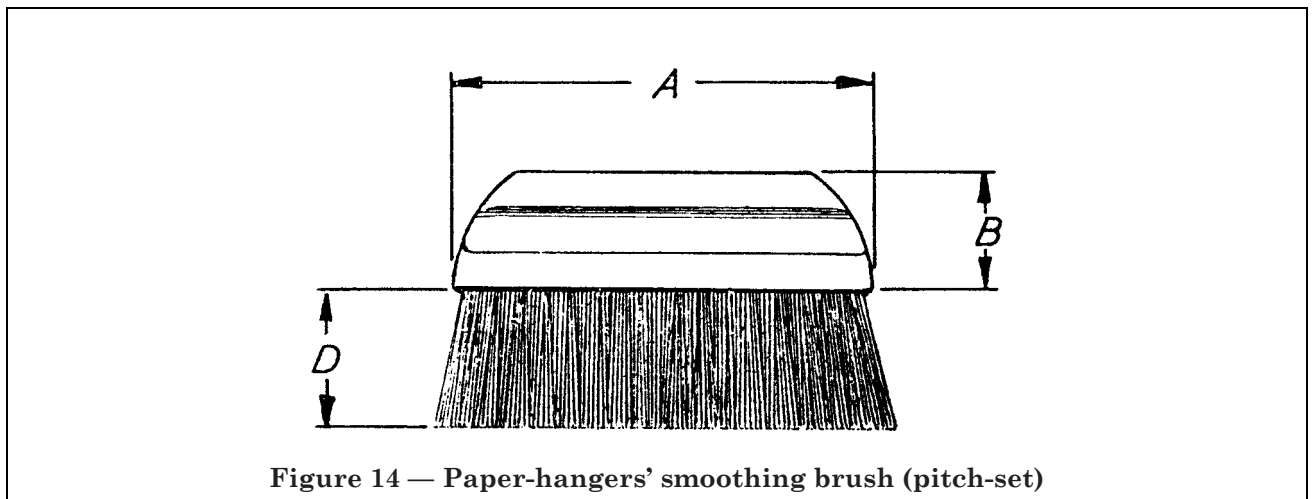


Figure 14 — Paper-hangers' smoothing brush (pitch-set)

Table 9 — Requirements for paper-hangers' smoothing brushes

| Ferrule                            | Details of filling                          |                                |   | Finish etc.   |
|------------------------------------|---|--------------------------------|---|---|
|                                    | Description <sup>a</sup>                    | Weight per brush finished<br>g | Minimum length above ferrule or out of handle<br><i>D</i><br>mm |   |
| —                                  | 100 % bristle<br>68 knots<br>(28 in centre) | 120                            | 75  | Plain handle with grooved sides.<br>Bristle securely set in pitch or synthetic resin  |
| Copper 0.50 mm<br>25 mm deep (min) | 100 % bristle                               | 110                            | 75  | Plain handle with grooved sides. Bristle securely set in vulcanized rubber or synthetic resin (see Clause 6). Bristle secured in ferrule by pinning through ferrule and bristle at intervals of not less than 15 mm nor more than 25 mm, the tips of the pins being securely clinched or riveted. Handle secured in ferrule by at least four pins each side |

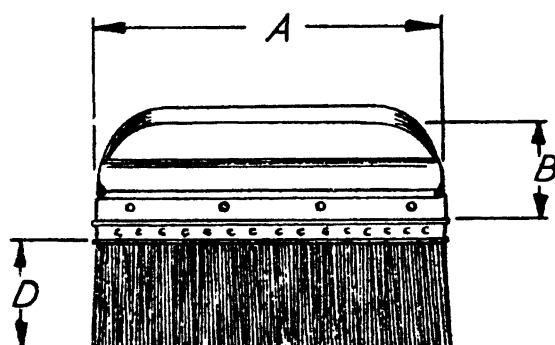


Figure 15 — Paper-hangers' smoothing brush (ferruled)

Table 10 — Requirements for jamb dusters

| Item No. | Description  | Handles                     |                            |                     |           |
|----------|--|-----------------------------|----------------------------|---------------------|-----------|
|          |  | Wood                        | Approximate measurements   |                     |           |
|          |  |                             | Overall length<br><i>A</i> | Breadth<br><i>B</i> | Thickness |
| 10/1     | Jamb-duster<br>(pitch-set or synthetic resin set)            | Beech, birch or<br>sycamore | mm<br>160                  | mm<br>100           | mm<br>30  |
| 10/1A    | Jamb duster<br>(vulcanized rubber or synthetic<br>resin set) | Beech, birch or<br>sycamore | 160                        | 100                 | 25        |
| 10/1B    | Jamb duster<br>(machine-made)                                | Beech, birch or<br>sycamore | 160                        | 100                 | 30        |

<sup>a</sup> See Clause 5: Approved sample.  
<sup>b</sup> As specified by the purchaser.

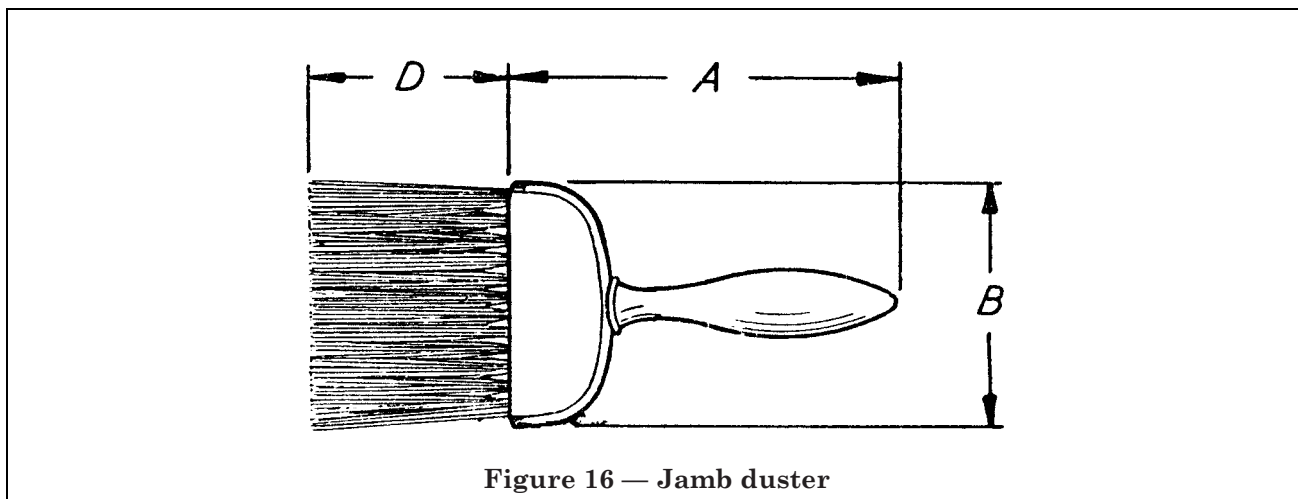


Figure 16 — Jamb duster

Table 10 — Requirements for jamb dusters

| Ferrule                              | Details of filling  |                           |  | Finish etc.   |
|--------------------------------------|---|---------------------------|--|---|
|                                      | Description <sup>a</sup>  | Weight per brush finished | Minimum length above ferrule or out of handle <i>D</i> |   |
| —                                    | 100 % bristle or horse-hair <sup>b</sup> :<br>36 knots<br>(8 in centre) | g<br>55                   | mm<br>85   | —   |
| Tinned steel<br>25 mm deep<br>(min.) | 100 % bristle   | 55                        | 85   | Bristle securely set in vulcanized rubber or synthetic resin (see Clause 6). Bristle secured in ferrule by pinning through ferrule and bristle at intervals of not less than 15 mm nor more than 25 mm, the tips of the pins being securely clinched or riveted. Handle secured in ferrule by at least two pins each side |
| —                                    | Horsehair:<br>34 knots<br>(8 in centre)                                 | 50                        | 75   | Machine-stapled: handle housed at shoulder with pin 22 mm × 14 mm diameter glued and nailed   |

Table 11 — Requirements for flat distemper brushes

| Item No. | Description                   | Handles           |                            |                            |                         |
|----------|-------------------------------|-------------------|----------------------------|----------------------------|-------------------------|
|          |                               | Wood              | Approximate measurements   |                            |                         |
|          |                               |                   | Length out of ferrule<br>A | Breadth under ferrule<br>B | Thickness under ferrule |
|          |                               | mm                | mm                         | mm                         |                         |
| 11/1     | Flat distemper brush (175 mm) | Beech or sycamore | 225                        | 175 (top)                  | 14                      |
| 11/2     | Flat distemper brush (150 mm) | Beech or sycamore | 210                        | 150 (top)                  | 14                      |
| 11/3     | Flat distemper brush (100 mm) | Beech or sycamore | 160                        | 100 (top)                  | 12                      |
| 11/1A    | Flat distemper brush (175 mm) | Beech or sycamore | 225                        | 175 (top)                  | 14                      |
| 11/2A    | Flat distemper brush (150 mm) | Beech or sycamore | 210                        | 150 (top)                  | 14                      |
| 11/3A    | Flat distemper brush (100 mm) | Beech or sycamore | 160                        | 100 (top)                  | 12                      |

<sup>a</sup> See Clause 5: Approved sample.  
<sup>b</sup> See 4.3: Mixture fillings.

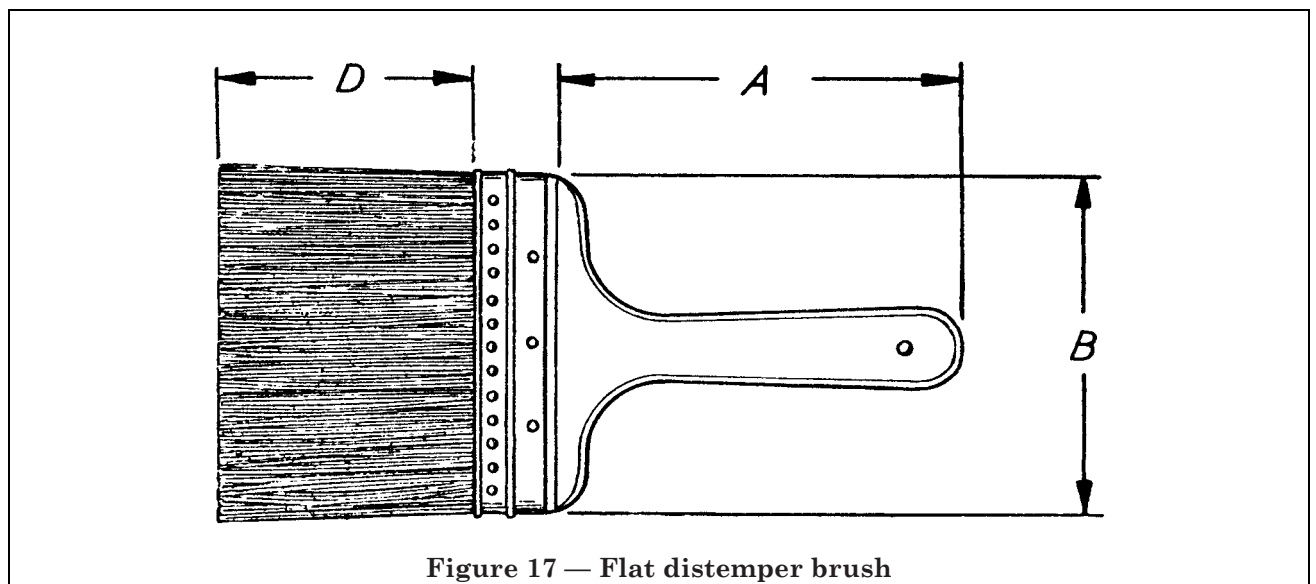


Figure 17 — Flat distemper brush

Table 11 — Requirements for flat distemper brushes

| Ferrule  | Details of filling       |                           |                                       | Finish etc.   |
|--|--------------------------|---------------------------|---------------------------------------|---|
|  | Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |   |
| 0.50 mm<br>Copper 175 mm<br>wide × 28 mm<br>deep × 25 mm thick | 100 %<br>bristle         | g<br>225                  | mm<br>120                             | Set in vulcanized rubber or synthetic resin (see Clause 6). Ferrule lapped and securely soldered. Handles polished or plain as specified by purchaser. Bristle secured in ferrule by pinning through ferrule and bristle at intervals of not less than 15 mm nor more than 25 mm with phosphor bronze pins or rivets, the tips of the pins being securely clinched down or riveted. Handle secured in ferrule by pinning with six pins (three on each side) |
| 0.50 mm<br>Copper 150 mm<br>wide × 28 mm<br>deep × 25 mm thick | 100 %<br>bristle         | 165                       | 110                                   |   |
| 0.50 mm<br>Copper 100 mm<br>wide × 28 mm<br>deep × 25 mm thick | 100 %<br>bristle         | 100                       | 85                                    |   |
| 0.50 mm<br>Copper 175 mm<br>wide × 28 mm<br>deep × 25 mm thick | Mixture <sup>b</sup>     | 225                       | 120                                   |   |
| 0.50 mm<br>Copper 150 mm<br>wide × 28 mm<br>deep × 25 mm thick | Mixture <sup>b</sup>     | 165                       | 110                                   |   |
| 0.50 mm<br>Copper 100 mm<br>wide × 28 mm<br>deep × 25 mm thick | Mixture <sup>b</sup>     | 100                       | 85                                    |   |

Table 12 — Requirements for stencil brushes

| Item No. | Description                 | Handles |  |                        |
|----------|-----------------------------|---------|--|------------------------|
|          |                             | Wood    | Approximate measurements                     |                        |
|          |                             |         | Overall length including ferrule<br><i>A</i> | Diameter under ferrule |
| 12/1     | Stencil brush, size (25 mm) | Beech   | 85<br>mm                                     | To fit ferrule         |
| 12/2     | Stencil brush, size (28 mm) | Beech   | 85   | To fit ferrule         |
| 12/3     | Stencil brush, size (37 mm) | Beech   | 100  | To fit ferrule         |
| 12/1A    | Stencil brush, size (25 mm) | Beech   | 85   | To fit ferrule         |
| 12/2A    | Stencil brush, size (28 mm) | Beech   | 85   | To fit ferrule         |
| 12/3A    | Stencil brush, size (37 mm) | Beech   | 100  | To fit ferrule         |

<sup>a</sup> See Clause 5: Approved sample.

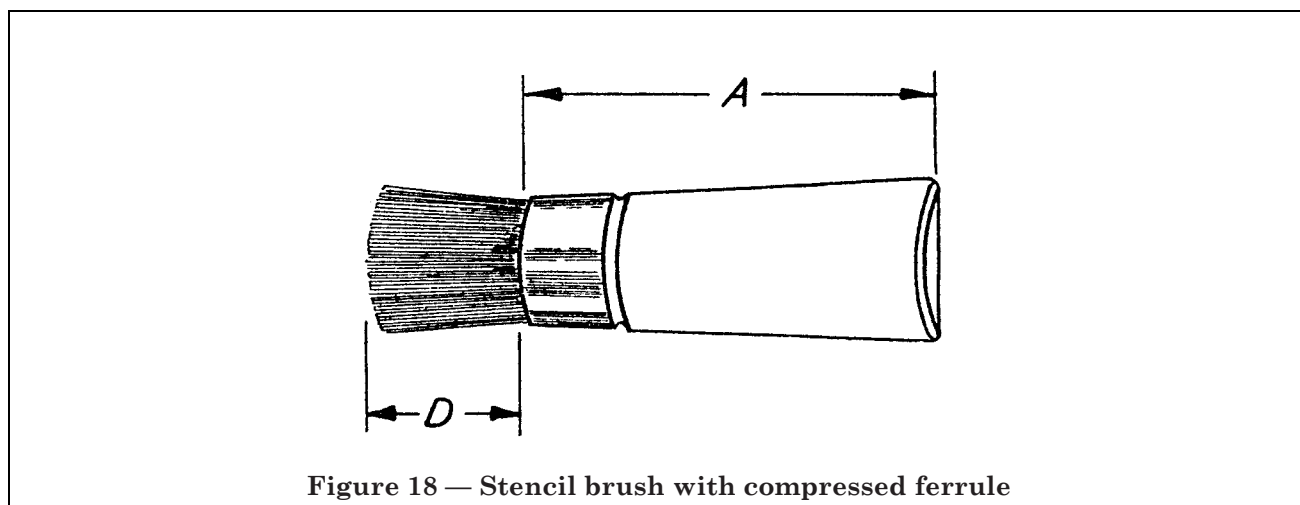


Figure 18 — Stencil brush with compressed ferrule

Table 12 — Requirements for stencil brushes

| Ferrule  | Details of fillings      |                           |                                       | Finish etc.   |
|--|--------------------------|---------------------------|---------------------------------------|---|
|  | Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |   |
| Tinned steel 0.25 mm, minimum depth 56 mm, internal diameter 30 mm, tapered to 25 mm | 100 % bristle            | g<br>21                   | mm<br>30                              |   |
| Tinned steel 0.25 mm, minimum depth 56 mm, internal diameter 32 mm, tapered to 28 mm | 100 % bristle            | 26                        | 32                                    | Set in vulcanized rubber or synthetic resin (see Clause 6). Handle in contact with base of bristle                    |
| Tinned steel 0.25 mm, minimum depth 68 mm, internal diameter 40 mm, tapered to 37 mm | 100 % bristle            | 56                        | 45                                    |   |
| Steel, solid drawn: minimum depth 18 mm, internal diameter 30 mm, tapered to 25 mm   | 100 % bristle            | 18                        | 30                                    |   |
| Steel, solid drawn: minimum depth 19 mm, internal diameter 32 mm, tapered to 28 mm   | 100 % bristle            | 23                        | 32                                    | Set in vulcanized rubber or synthetic resin (see Clause 6). Ferrules compressed onto handle or pinned with three pins |
| Steel, solid drawn: minimum depth 25 mm, internal diameter 43 mm, tapered to 37 mm   | 100 % bristle            | 45                        | 45                                    |   |

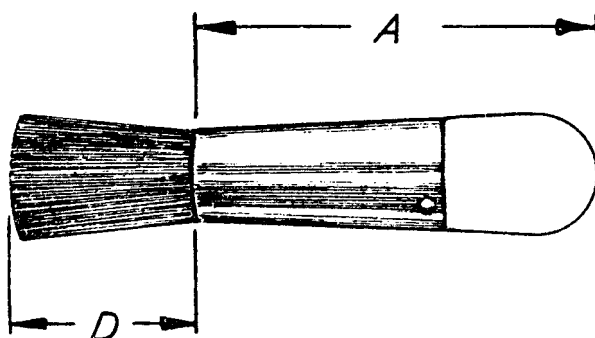


Figure 19 — Stencil brush with pinned ferrule



Table 13 — Requirements for squirrel hair lacquer brushes

| Item No. | Description            | Handles                  |                                   |                                   |                         |
|----------|------------------------|--------------------------|-----------------------------------|-----------------------------------|-------------------------|
|          |                        | Wood                     | Approximate measurements          |                                   |                         |
|          |                        |                          | Length out of ferrule<br><i>A</i> | Breadth under ferrule<br><i>B</i> | Thickness under ferrule |
|          |                        |                          | mm                                | mm                                | mm                      |
| 13/1     | Lacquer brush (12 mm)  | Beech, birch or sycamore | 90                                | 12                                | 6                       |
| 13/2     | Lacquer brush (25 mm)  | Beech, birch or sycamore | 105                               | 25                                | 6                       |
| 13/3     | Lacquer brush (50 mm)  | Beech, birch or sycamore | 115                               | 50                                | 6                       |
| 13/4     | Lacquer brush (75 mm)  | Beech, birch or sycamore | 125                               | 75                                | 6                       |
| 13/5     | Lacquer brush (100 mm) | Beech, birch or sycamore | 150                               | 100                               | 6                       |

<sup>a</sup> See Clause 5: Approved sample.

<sup>b</sup> Measurement for width and thickness are taken at inner surfaces of ferrules, at the point where the filling leaves the ferrule.

Table 13 — Requirements for squirrel hair lacquer brushes

| Ferrule <sup>b</sup>                             | Details of fillings      |                           |                                       | Finish etc.  |
|--|--------------------------|---------------------------|---------------------------------------|--|
|  | Description <sup>a</sup> | Weight per brush finished | Minimum length above ferrule <i>D</i> |  |
| 0.20 mm<br>12 mm wide × 6 mm thick × 30 mm deep  | 100 % squirrel hair      | 1.5<br>g                  | 20<br>mm                              | Set in synthetic resin. Ferrule of nickel-plated steel, lapped and securely soldered or spot-welded. Handles plain. Handles secured in ferrule by adhesion to the setting or by pinning on both sides, the number of pins being as follows:<br>Item 13/1 — no pins, pricked on;<br>Items 13/2, 13/3 — three pins (two & one);<br>Item 13/4 — four pins (two & two);<br>Item 13/5 — five pins (three & two) |
| 0.25 mm<br>25 mm wide × 6 mm thick × 30 mm deep  | 100 % squirrel hair      | 2                         | 30                                    |  |
| 0.30 mm<br>50 mm wide × 6 mm thick × 30 mm deep  | 100 % squirrel hair      | 3.5                       | 30                                    |  |
| 0.30 mm<br>75 mm wide × 6 mm thick × 30 mm deep  | 100 % squirrel hair      | 5                         | 35                                    |  |
| 0.40 mm<br>100 mm wide × 6 mm thick × 30 mm deep | 100 % squirrel hair      | 7                         | 35                                    |  |

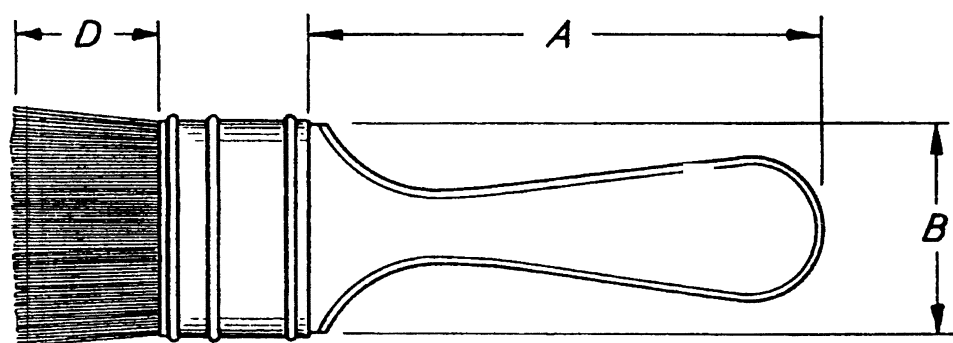


Figure 20 — Lacquer brush

## Appendix A Determination of weight of filling material

Remove the handle, ferrule, binding, staples, etc. from the brush by mechanical means. Thrums can be removed from pitch-set fillings after softening of the setting.

Soak the setting medium, if any, in an appropriate solvent until it is sufficiently friable to be broken down. Trichloroethylene or methylene chloride is suitable for rubber or pitch settings, acetone for synthetic resin settings.

Break down the setting by rubbing it between the finger and thumb or by hammering it lightly, these processes being carried out over a large sheet of paper, and repeated at intervals of about ¼ hour until all the setting medium has been removed.

Nails, pins and wedges may be removed at any stage as convenient.

Spread all the filling material, including any pieces broken off in the above processes, in a thin layer on a sheet of paper, to allow the solvent to evaporate.

Condition the residue in an atmosphere having a relative humidity of  $65 \pm 2$  % at a temperature of  $20 \pm 2$  °C until equilibrium is reached, and determine its weight without removal from that atmosphere.



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