

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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AT&T Co. Standard

PAINTING TOOLS

PAINTING AND REPAINTING LADDERS, SOFT WOOD TOOL HANDLES, DROP WIRE REELS AND OTHER TOOLS

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1. GENERAL

- 1.01 The splintering of side rails of ladders and soft wood tool handles is brought about by:
- (a) The wear and bruising that ladders and soft wood tool handles receive in connection with their transportation, handling and use.
 - (b) The stresses set up through changes in the moisture content of the wood and the change in the adhesive qualities of the fibre binder, which is occurring continually when the wood is exposed to changing atmospheric conditions.

1.02 Splintering of the wood is not only an annoyance to the field forces but a potential hazard. In view of this the splinters should be immediately removed with either a spoke shave, wood rasp, file or pocket knife and the shaved surface painted as protection against future splintering.

1.03 The tendency of soft wood to splinter can be reduced by means of a coat of enamel. Before painting, however, the wood should be inspected for rot, checks, cracks, splinters and loose parts and other defects which might cause the tool to fail in service. These inspections can be made equally as well on wood that has been painted as on unpainted wood.

2. SCOPE

2.01 These practices cover the tools and materials to be used and methods to be followed in the preparation and painting of sectional and extension ladders and soft wood tool handles as, for example, tree pruner handles, pike poles, deadmen, etc. They also provide for a satisfactory finish on drop wire reels and other tools of metal and wood. The finish described herein for the original painting of such tools consists, for metal parts, of one (1) coat of primer and two (2) coats of color enamel: for wooden parts two (2) coats of color enamel. For repainting, the finish consists of a "touch-up" spotting of damaged areas and one (1) coat of color enamel for both metal and wooden parts.

3. STANDARD TOOLS AND MATERIALS

3.01 Standard names of tools and materials required for use in connection with painting and repainting ladders, soft wood tool handles, drop wire reels, and other tools are listed below for the convenience of the field forces in ordering and checking the supply of tools and materials. Although a complete list of tools and materials is covered, each employee should select only those that have been approved for use in the operating area and that are required for use in performing the work. The principal uses for each item are also covered to facilitate determining the need for the item.

Tools and Material

Brush, Varnish, Flat, 2 inch
(To be obtained locally)

Use and Description

Intended for use in applying the standard enamels. Consists of a polished handle, provided with a rubber set, metal bound brush 2 inches wide. The bristles are black Chinese set to a chisel edge.

Tools and Material

Use and Description

Brush, Wire, Steel, No. 6
(To be obtained locally)

For removing old paint and rust from metal. Consists of a curved solid back 8-1/4" x 2-5/8" equipped with seven rows of fine wire bristles 1-1/8" in length.

Carbon tetrachloride
(Available in pt., qt., and gal. cans.)

For washing metal and removing wax, grease and oil from ladders and soft wood tool handles.

Cloth, Cheese
(Available by the yd.)

For use in applying carbon tetrachloride.

Duster, Round, Painter's
(To be obtained locally)

For removing dust developed during the sandpapering operations. Consists of a polished handle 7 inches in length and provided with white bristles 2-3/8 inches long. Diameter of brush 2-3/8 inches.

Enamel (Blue-Gray or Green),
Standard, Bell System
(Available in pt., qt., and gal. cans.)

For use in painting ladders, soft wood tool handles, drop wire reels and other tools of metal and wood.

Paint—See Enamel

Paddle, Wooden
(To be made locally)

For stirring enamel. Consists of a thin piece of wood at least 1 inch wide, whittled to form a handle that will be convenient to use.

Primer, Metal, Standard, Bell
System
(Available in pt., qt., and gal. cans.)

For use only as the first or primer coat on metal.

Remover, Paint
(To be obtained locally)

For removing hardened paint from bristles.

*Sandpaper, No. 100-C
(Furnished in sheets 9x11 inches.)

For use on wood to obtain a smooth surface.

* No. 2/0 garnet sandpaper and No. 1/0 or No. 0 flint sandpaper have abrasives of the same particle size.

Tools and Material	Use and Description
**Sandpaper, No. 320 (Furnished in sheets 9x11 inches.)	For use on metal to obtain a smooth surface.
Shave, Spoke (To be obtained locally)	For use in removing splinters and in dressing the ends of pike poles so as to provide a comfortable grip for holding pike. (A wood rasp, file or pocket knife may be used as a substitute for a spoke shave.)
Thinner, Standard, Bell System (Available in pt., qt., and gal. cans.)	For use in thinning the standard enamel. Thinner and enamel shall be those of the same manufacture.
Turpentine (Available in pt., qt., and gal. cans.)	For use in thinning the standard enamel, if approved for that purpose.
** No. 9/0 sandpaper has abrasive of the same particle size.	

4. LOCATIONS FOR INSPECTING AND PAINTING

4.01 The inspecting and painting of tools shall be performed at locations in the area designated for the purpose, depending upon such arrangements as may be made to best meet the local conditions.

4.02 Painting shall be performed in a well ventilated room having a moderate temperature and free from dampness and dust.

5. VISUAL INSPECTION AND MAINTENANCE

5.01 Inspect ladders, pike poles, deadmen and tree pruner handles before being painted for rot, cracks, splits, splinters, or defects which might cause the tool to fail in service. When repairs are necessary, repair the tools, if practicable, or return them to the storeroom or distributing house to be repaired in accordance with the established practice. Remove splinters from the tools with either a spoke shave, wood rasp, file or pocket knife. Tighten all loose nuts and remove all sharp edges and corners on hardware that may be a potential hazard.

5.02 Dress the ends of pike poles so as to provide a smoothly rounded end to fit the palm of the hand when piking poles.

5.03 Before painting drop wire reels and other tools made of metal, inspect for fractures and loose parts. Tighten loose parts and remove rough edges.

6. CLEANING AND PREPARING WOOD FOR PAINTING

6.01 After each tool has been carefully inspected and found to be free from defects, it shall be prepared for painting. Where an area is covered with paraffin, scrape the excess off with a shave hook or other edged tool and rub the surface vigorously with a rag saturated with carbon tetrachloride and wipe dry with a clean rag. Dry sand with No. 100-C sandpaper to obtain a smooth surface. Dry and wipe clean from products of sanding, taking care to clean out the recessed areas.

6.02 Use no putty to close cracks or holes or to otherwise create a smooth surface.

7. CLEANING AND PREPARING METAL FOR PAINTING

7.01 Remove rust and loose old paint with a wire brush.

7.02 Clean the entire surface with No. 320 sandpaper, removing all grease, oil, wax, or other foreign substances. To obtain the best results, occasionally wet the sandpaper with carbon tetrachloride. This prevents clogging of the paper and more effectively removes oil and greases. Rub corroded surfaces until cleaned bright.

7.03 Wash the entire surface with a cloth saturated with carbon tetrachloride and wipe dry with a clean cloth.

8. PREPARING PAINT FOR APPLICATION

8.01 To secure a dried film which accurately represents, as regards color, the liquid enamel as received in the can, it is necessary that the contents be very thoroughly stirred. The following stirring method has been found satisfactory for use of the field forces.

(a) Open the can of enamel and pour off three-quarters of the contents into a clean can or container.

(b) Thoroughly stir the enamel remaining in the original can with a paddle, taking care to stir into the liquid any pigment adhering to the walls and bottom of the can. Stir until such time as the liquid is uniform in color and consistency.

(c) Stir the enamel in the second can until such time as the liquid is uniform in color and consistency.

(d) Pour half of the enamel in the second can back into the original can and thoroughly stir the contents to a uniform color and consistency.

(e) Pour the remaining half of the enamel in the second can back into the original can and thoroughly stir the contents to a uniform color and consistency.

(f) Pour the contents from the original can into the second can, allowing the can to drain completely and then pour back into the original can.

8.02 The paint as received in the can has a consistency satisfactory for brushing. If thinning is necessary due to evaporation, use the thinner designated for that enamel or turpentine.

8.03 The priming coat for metal surfaces will, in general, require no thinning. If thinning is required, consult your supervisor.

8.04 For the first or priming coat on wood, thin the enamel with one (1) pint of the thinner or turpentine, to one (1) gallon of enamel.

8.05 The thinning directions given in Paragraph 8.01 are for brushing; for spray applications where facilities and equipment, including respirator, for doing the work have been provided for the purpose, follow the directions given in Paragraph 8.03.

9. INSTRUCTIONS FOR INITIAL PAINTING AND RE-PAINTING

9.01 The tools having been prepared for painting shall be placed on wooden horses or other supports in such a manner as to prevent their rolling or falling to the ground. The priming coat shall be applied to metal parts and the first coat of enamel shall be well brushed into the grain of wooden parts, care being taken to cover the surface evenly. If desired, the hardware of the wooden tools mentioned in this practice, except the ferrules of the tree pruner handles, may be enameled without being primed.

9.02 Tools which have previously been painted shall be inspected and cleaned as described in Parts 5 and 6. When sanding old finishes use care not to remove more of the original paint that is in good condition than is necessary. It will, in general, be unnecessary to apply a first coat in repainting, except "touching up" bare wood or metal spots with the first coat of enamel or primer.

9.03 Allow the "touched up" spots at least four (4) hours to dry.

9.04 Brush on the final coat of color enamel, taking care to obtain a finish free from runs, dirt specks, etc.

9.05 The painted tools should not be used until they are thoroughly dry, at least sixteen (16) hours after they have received the final coat.

10. PRECAUTIONS

10.01 In applying enamel to extension ladders, take care to prevent any moving parts from becoming inoperative. This applies particularly to the ladder locks, the proper operation of which shall be checked before releasing the ladder for service.

10.02 Do not paint ferrules of tree pruner handles.

11. CARE OF BRUSHES

11.01 A new brush which sheds a few bristles when first put into use is not necessarily defective. Before using a new brush, dip it into the materials to be applied and draw several times across a rough surface. This will remove any short bristles not caught in the setting. If this is done and the brush continues to shed bristles after several hours use, exchange it for a brush in good condition.

11.02 Brushes are not guaranteed to give any definite amount of wear. How rapidly a brush wears depends on the nature of the surface on which it is used and how the brush is treated. In this connection storage plays an important part. Do not keep brushes in hot dry places or where it is known that moths are present.

11.03 Should a brush become loosened through shrinkage, carefully part the bristles and pour a little water on the butt of the handle or block. Let it stand overnight with the end of the handle secured in place so that the ends of the bristles face upward.

11.04 If too much enamel works up into the heel, hammer the ferrule lightly so as to close it. This will cause the bristles to flare and permit the enamel to be more readily applied to the surface being painted.

11.05 After brushes have been used, brush the enamel out of the bristles and store overnight, week-ends, etc., by suspending the brush in turpentine in such a manner that the ends of the bristles are free and do not rest on the bottom of the container. This will prevent the bristles from kinking.

11.06 Do not put brushes away loaded with enamel as it will dry and harden on the bristles, causing them to lose their shape and chisel edge. Before storing a used brush for an indefinite period, remove as much enamel as practicable from

the bristles by brushing. Soak the brush in turpentine and clean the bristles by brushing. Wash the bristles with soap and water and rinse in clear water, allowing them then to dry thoroughly before storing.

11.07 If brushes are found with hardened paint, soak them overnight in an approved paint remover. Separate the bristles and work the brush over a rough surface to remove the enamel that has been loosened.

11.08 Never put a bristle brush in acid or hot lime.

11.09 Never use a varnish brush as a duster.

11.10 Never put a duster in water.

12. SPECIAL MARKINGS

12.01 Each new standard ladder is branded "Bell System" and with the approximate date of manufacture. Soft wood tool handles are marked or branded in the same manner. If no marking of this nature is found, consult your supervisor as to the disposition to be made of the item.

12.02 After painting is completed as provided for in these instructions, all special markings shall be made in accordance with the local practices provided for the purpose.