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Pamphlet 210-2

INSTALLATIONS

HANDBOOK FOR FAMILY HOUSING OCCUPANTS

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SUMMARY of CHANGE

DA PAM 210-2
HANDBOOK FOR FAMILY HOUSING OCCUPANTS

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TELEPHONE NUMBERS

EMERGENCY CALLS

OPERATOR _____
FIRE..... _____
POLICE _____
AMBULANCE _____
FACILITIES ENGINEER _____
 DURING DUTY HOURS _____
 AFTER DUTY HOURS _____

SERVICE CALLS

COMMUNITY SERVICES..... _____
FAMILY HOUSING OFFICE _____
QUARTERS PROPERTY BRANCH..... _____
TELEPHONE TROUBLE _____
CORRECT TIME _____
WEATHER..... _____
INFORMATION..... _____
SELF SERVICE SUPPLY CENTER..... _____
FACILITIES ENGINEER _____
DOCTOR _____

WRITE IN THE TELEPHONE NUMBERS YOU WILL NEED
FOR CONVENIENCE OR IN CASE OF EMERGENCY

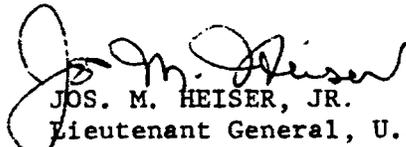
WELCOME TO YOUR ARMY HOME

Welcome to your new home. Although it will take some time to get all of your household items and furniture moved in and arranged properly, soon each set of quarters will take on the personality of its family and will truly become "your home".

Each set of quarters must be "home" to many Army families. As each family uses them, they hold them in trust for many future occupants. I hope each family feels the pride of ownership during their occupancy rather than the frustration of the transient. Your Army home is to be used and enjoyed, but occupancy carries responsibilities too.

Caring for your Army home is a cooperative effort between you, your family, other quarters occupants, the Family Housing Manager and the Facilities Engineer. Major repair work will be accomplished for you by skilled craftsmen of the facilities engineer's staff. However, many expensive repairs can be avoided if you will carry out the continuing minor maintenance described in this handbook.

This handbook is designed to describe corrective measures that can be taken by any concerned householder, using simple tools. It is aimed at providing you a better home in which to live and an opportunity of passing on this home in good condition to future occupants.


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INSTALLATIONS

HANDBOOK FOR FAMILY HOUSING OCCUPANTS

By Order of the Secretary of the Army:

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Summary. This handbook has been prepared as a guide for Family Housing Occupants primarily in promoting an effective self-help program. The self-help Program is a means of attaining maximum use of available resources to improve living conditions and the general appearance of facilities. The handbook describes those self-help jobs which you are expected to perform.

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Chapter 1 INTRODUCTION

1-1. Purpose.

This handbook has been prepared as a guide for Family Housing Occupants primarily in promoting an effective self-help program. The self-help Program is a means of attaining maximum use of available resources to improve living conditions and the general appearance of facilities. The handbook describes those self-help jobs which you are expected to perform.

1-2. Occupants carry responsibility of self-reliance.

Occupancy of these quarters carries the responsibility and self-reliance for doing that "handyman" type of work. These self-help jobs are those which normally would be done by a prudent homeowner to conserve his own funds and to preserve his individual premises.

1-3. The Facilities Engineer provides technical assistance.

The Facilities Engineer performs all maintenance and repairs, except that "handyman" type of work as is within the capabilities of the occupants, and provides technical guidance and assistance to participants in the program.

1-4. Attendance of regular classes.

Regular classes in self-help are conducted by the Facilities Engineer. Every adult household member should attend.

1-5. Self Service Supply Center.

Free material, temporary loan of tools, and instructions for performing self-help jobs can be obtained at the Self Service Supply Center.

1-6. Emergency repairs.

Emergency work or work beyond the scope of this handbook can be obtained by making a service call or submitting a job order request to the proper authority in accordance with local procedures established by the installation commander.

1-7. Supplementation.

Local Commanders may supplement and modify the handbook with such items required to meet local conditions.

1-8. Handbook stays with quarters.

The handbook is for you, the occupant, to use and should be left in the quarters upon your departure.

Chapter 2 FURNITURE AND FURNISHINGS

2-1. Furnished housing units.

In many cases family housing units have been equipped with authorized items of government furniture and furnishings.

2-2. Care of furniture.

All furniture should be dusted and washed with a mild cleaning solution, and wiped dry with a clean dry cloth as soon as possible. Use only a minimum amount of water to avoid damaging the wood. Furniture should then be polished with a good commercial polish (or wax). Polishes generally contain waxes mixed with oil which brightens and protects the furniture. Apply the polish with a dampened cloth. Care should be taken not to stain upholstery.

2-3. Obtaining polish and upholstery shampoo.

Furniture polish and upholstery shampoo may be purchased at the Commissary or local supermarket.

2-4. Report furniture needing repair.

Government furniture that needs repair should be reported to the proper authority.

Chapter 3

MAINTENANCE OF QUARTERS

3-1. Interior Painting.

This work is done by the Facilities Engineer in a maintenance cycle. Occupants may draw paint, brushes, sandpaper, etc. from the Self Service Supply Center to do touch-up work and partial painting. Instructions on how to paint are also given at the Self Service Supply Center.

3-2. Carpentry.

Occupants may do some carpentry work such as minor repair to wood fences and exterior storage structures, resetting finishing nails that are protruding from woodwork, refastening or replacing damaged coat hooks, clothes poles, and shelves in closets. Supplies and tools such as hammer, nail set, hand saw, screw driver, etc. may be borrowed from the Self Service Supply Center. If the occupant wants to make some alterations or modifications to his dwelling, prior approval is necessary from the proper authorities.

3-3. Hardware.

(fig. 3-1).

a. Occupants may do some work in keeping hinges on doors, cabinets, etc. from becoming loose by using a proper size screw driver in tightening loose screws. If the door locks do not work freely, the locks should be lubricated with graphite powder which can be obtained at the Self Service Supply Center. If oil is used on the locks, it will cause dust to collect and will result in clogging the mechanism. If the locks still do not work properly, submit a job order request.

b. Paper towel holders, manual can openers, and towel racks, etc. may be installed by occupants in the kitchen and bathroom on the condition that these items remain in place upon clearance of quarters. Care should be taken to install accessories in such a manner that they will not interfere with the operation of doors and drawers.

c. Door stops that need replacing are available at the Self Service Supply Center.

3-4. Windows.

Broken glass will be replaced by the Facilities Engineer.

3-5. Caulking.

(fig. 3-2). Replace caulking around door and window openings and other exterior areas, provided they are reasonably accessible. Inspect the caulking in bathrooms around bath tubs and showers and, if it needs replacing, submit a job order request.

3-6. Screens and Storm Sash.

(fig. 3-3 and 3-4). Small holes in screens can usually be repaired by the occupant. Patching material is available at the Self Service Supply Center. To patch a hole, cut material to at least one half, inch overlap on all four sides of the hole, fray or remove four small wire tips on all four sides. Bend these tips inward to a 90° angle; push these tips through the screen over the hole to be patched; bend the tips flush to the screen with a small block of wood held on the outside (patched side) of screen. To complete the job, simply trim off any remaining sharp metal ends. In cleaning screens, you may use vacuum cleaner, soft hair, brush or cloth.

3-7. Window Shades and Venetian Blinds.

The occupants should check for loose brackets and tighten all screws holding the brackets. The installation and repair of venetian blinds and roller shades will be obtained by calling the proper authority or submitting a job order request.

3-8. Curtain Rods and Traverse Rods.

Curtain rods and traverse rods may be installed by occupants at their own expense. Installation method must be approved by the proper authority. Upon termination of quarters, these items will remain in place. If it is desired to remove these items, all damaged areas must be repaired by the terminating occupant to the condition of time of assignment.

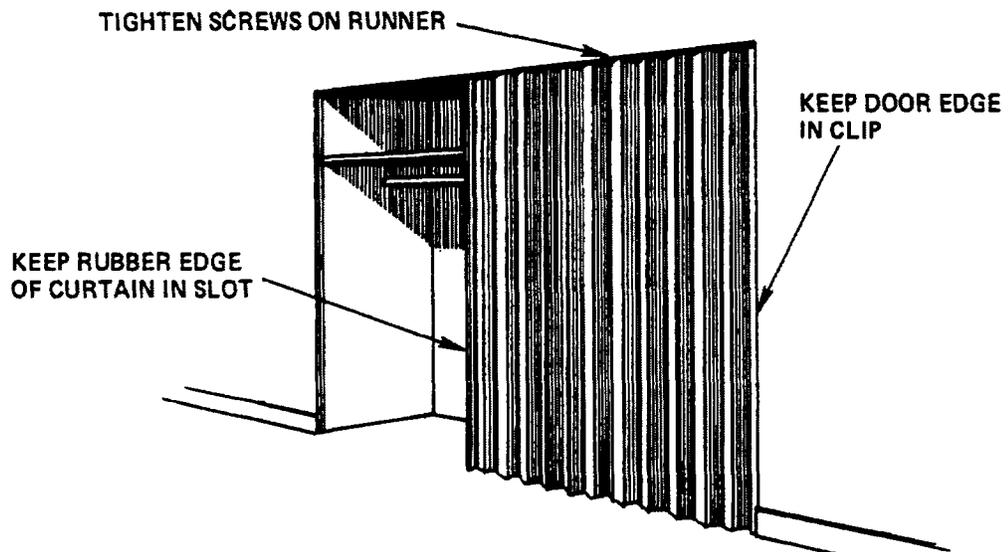
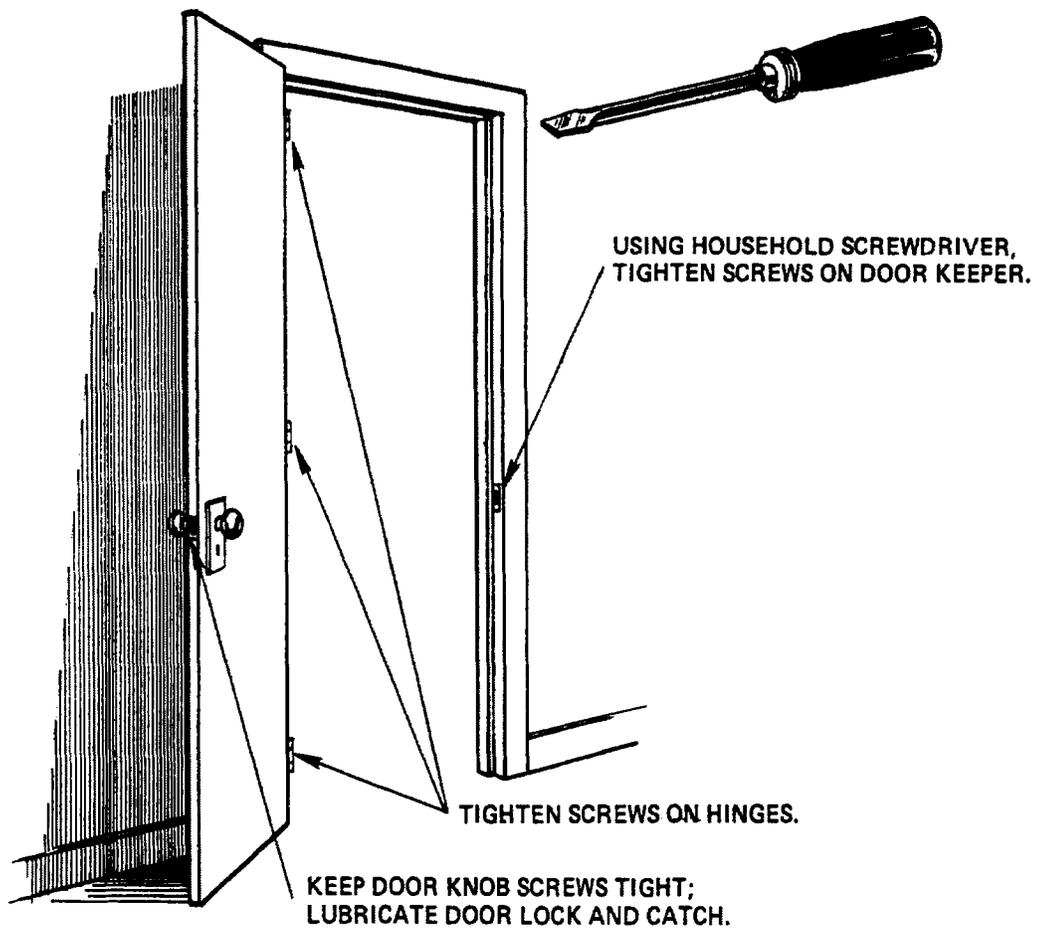


Figure 3-1. Hardware.

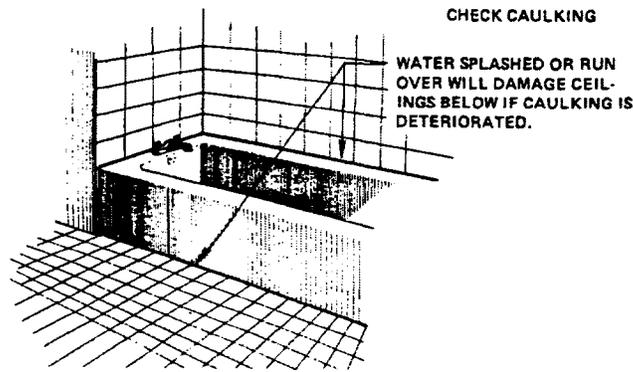


Figure 3-2. Caulking.

3-9. Hanging Pictures and Mirrors, etc.

(fig. 3-5).

a. Masonry Walls.

(1) Items weighing under 15 pounds, drill a $\frac{1}{8}$ inch hole, $\frac{3}{4}$ to 1 inch deep, drive in softwood peg flush with wall surface, and install small finishing nail into wooden peg.

(2) For large items weighing over 15 pounds, drill into wall and install lead expansion shield and screw. Size and depth of hole vary with size of lead shield. Check direction on package when purchased through the post exchange or when issued through Self Service Supply Center.

b. Gypsum Board Wall.

(1) For items weighing less than 15 pounds, use wire nail hanger.

(2) For items weighing between 15 and 25 pounds, drill hole through wall boards and install a molly bolt (anchor).

(3) For items in excess of 25 pounds, do not hang on wall unless $1\frac{1}{2}$ -inch wood screw is anchored into a vertical 2 x 4 wood stud located behind plaster board. Location of a stud can be found by noticing where the nails are driven to hold the baseboard to the wall. Normally, these studs are spaced 16 inches center to center, and if the location of one can be identified, the remaining studs can be located by measuring in multiples of 16 inches.

3-10. Cleaning.

a. *Floors.* The floors in your home will generally be resilient tiles or wood. In the bath area, the floors probably will be ceramic or quarry tile. These principal types require different approaches in their care. If you are not able to distinguish types discussed, ask the Family Housing Manager, or Facilities Engineer to identify your type of flooring. The following tables are for easy reference and will assist you in maintaining the floors in your home.

Table 3-1
Mopping Solutions

Kind of floor surface	Mopping solutions	Wet mop scrubbing	Damp mop	Rinse	Remarks
Sealed wood or painted wood; not waxed.	$\frac{1}{8}$ to $\frac{1}{4}$ cup of synthetic detergent in 1 gal. of water.	Only if very dirty or dirt has set.	Preferred. Use as little water as possible.	Yes. Change water often.	While paint and seals are not attacked by water, they are by alkali GI soap, and all strong cleaning solutions. Rinse carefully and remove water immediately.
Waxed wood, linoleum, asphalt tile, vinyl.	Cleared water and small amount of synthetic detergent only.	Only to remove wax.	Yes. Use as little water as possible.		Do not use soap or any other cleaning agent except to remove dirt. Use little water as possible when mopping.
Unwaxed linoleum, asphalt tile, rubber mat-pave, vinyl.	Clear water. If very dirty, use all purpose synthetic detergent solution.	Never let water stand on these floors. Water in seams loosens floor coverings.	Yes. Use as little as possible.		These floor coverings are impervious to most dirt, and clear water will remove everything except grease and some stains. Avoid using alkali soaps, acids or solvents.

Table 3-1
Mopping Solutions—Continued

Kind of floor surface	Mopping solutions	Wet mop scrubbing	Damp mop	Rinse	Remarks
Terrazzo, mosaic tile, quarry tile flagstone, slate marble, unpainted concrete.	All-purpose synthetic detergent solution.	Only if very dirty. Change solution often.	Preferred. Change water often.	Yes. Change water often.	Alkali GI soaps and strong detergents attack marble, slate, terrazzo, and the like, and cause pitting and rapid wear.
Painted concrete.	Same as for painted wood.	Only if very dirty.	Preferred.	Yes.	See remarks on painted wood floors.

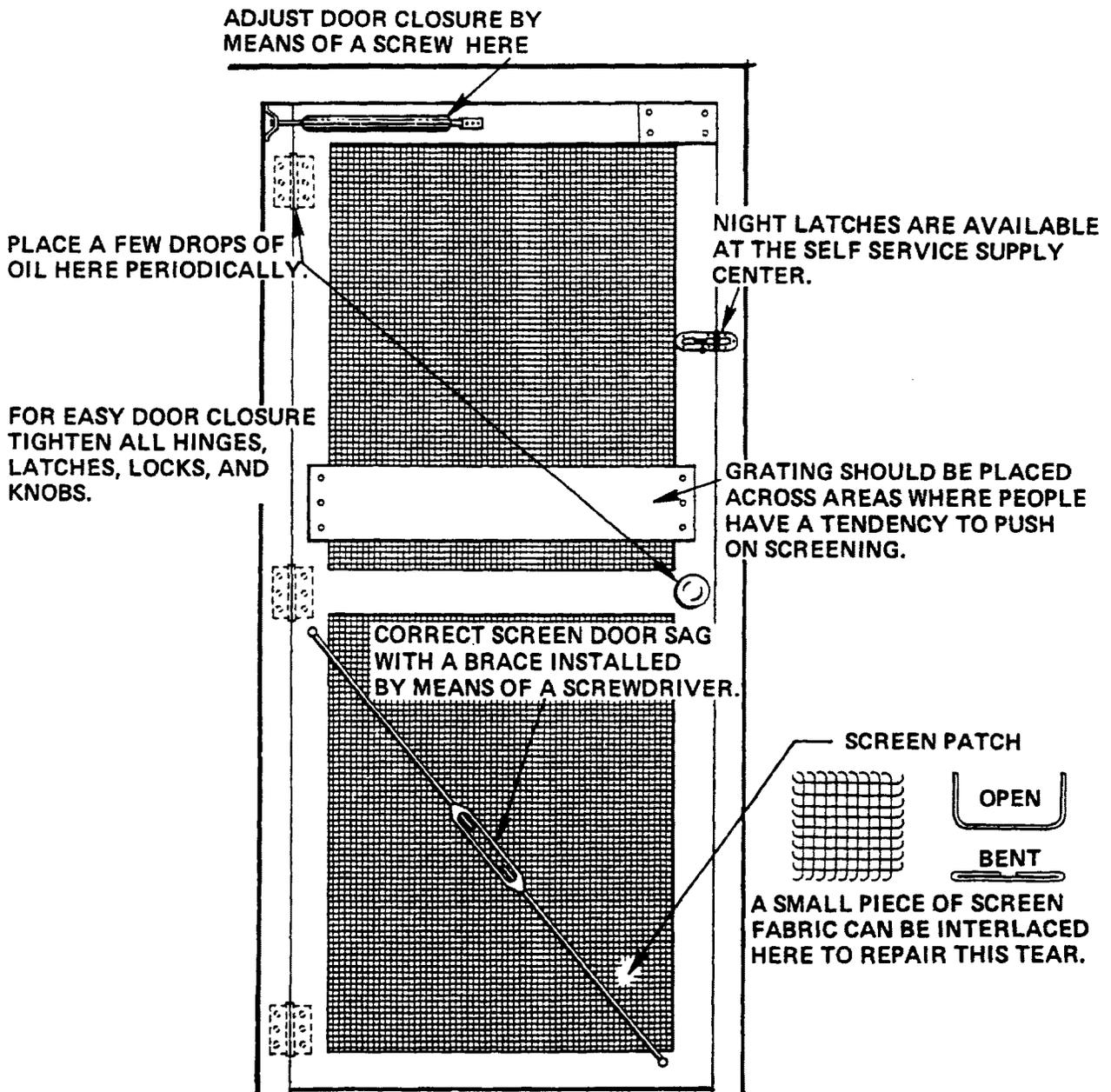
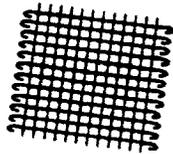
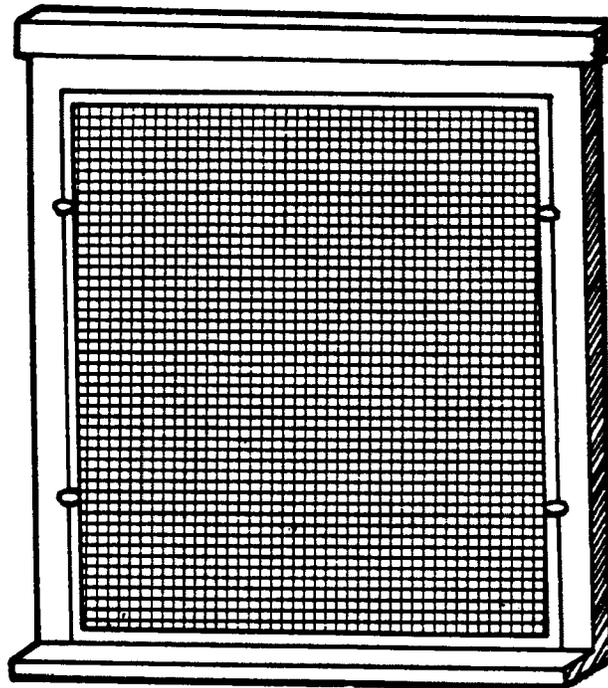


Figure 3-3. Screen repair doors.

SCREEN WINDOWS SHOULD NOT BE BROOMED CLEAN.

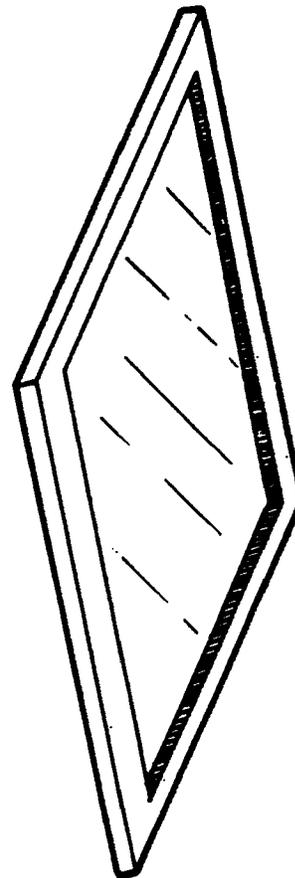


SCREEN PATCH BEND OVER WIRE ENDS. PRESS THROUGH SCREEN AND BEND ENDS DOWN TO CLAMP ON SCREEN.



STORE STORM SASH IN THE GARAGE, BASEMENT, OR STOREROOM AWAY FROM HIGH TRAFFIC AREAS TO PRECLUDE DAMAGE.

WHEN SASH ARE REMOVED... REMEMBER TO NUMBER BOTH WINDOW CASEMENT AND STORM SASH FOR EASE IN RE-INSTALLATION.



STORM SASH SHOULD BE CLEANED PRIOR TO INSTALLATION.

Figure 3-4. Window screen & storm sash.

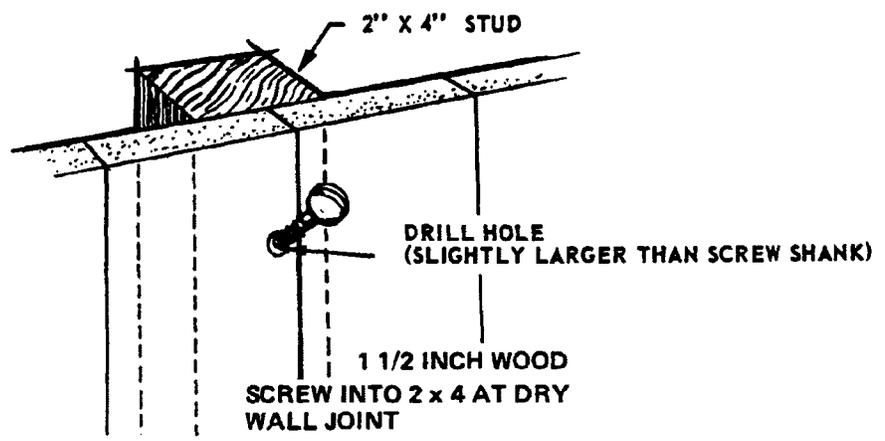
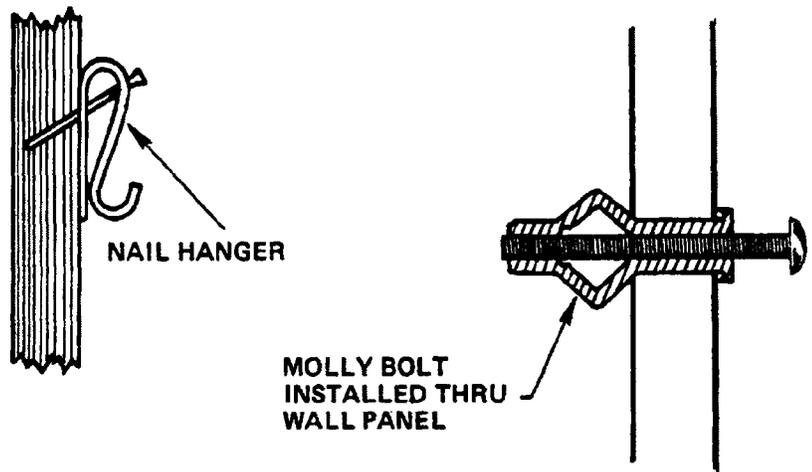
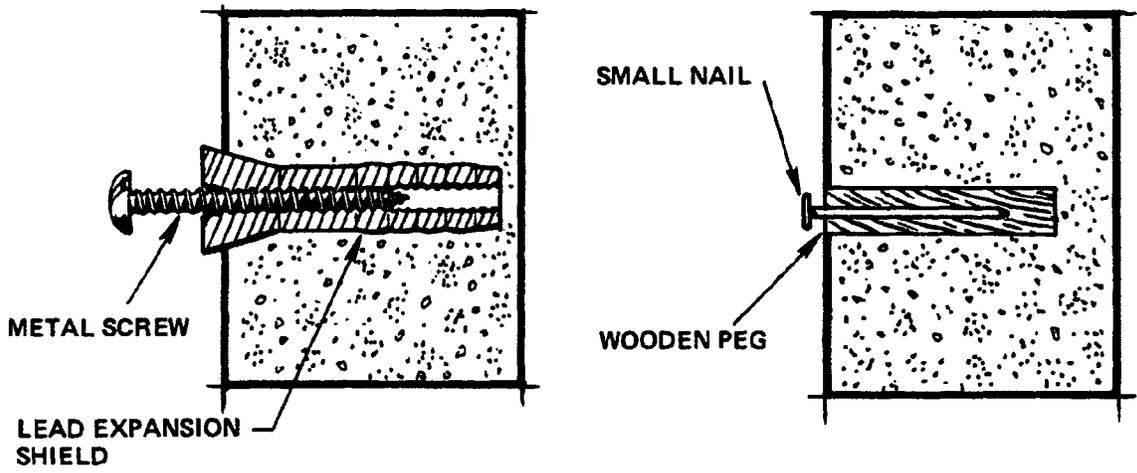


Figure 3-5. Picture hanging.

**Table 3-2
Waxed Floor Maintenance Guide**

Problem	Cause	Remedy
Inadequate gloss.	Floor finish too thin.	Apply two thin coats evenly. Wait 72 hours if third coat is needed.
	Floor not properly cleaned.	Remove wax by mopping, rinse thoroughly. Two applications may be required for heavily soiled floors.
	Porous floors.	Thoroughly remove wax by mopping, apply coating to fill pores, and apply wax or polymeric finish; avoid frequent stripping of wax. There are a number of waxes and finishes which may be obtained at your local supermarket or commissary.
Tacky or sticky finish.	Too much polish.	Allow each thinly applied coat to dry before subsequent coats.
	Polish applied over improperly rinsed floor.	Rinse with clean water and wring out mop in separate bucket of water. Change rinse water frequently.
	Use of improper polish.	Never use solvent waxes on resilient floors. Read directions on containers as to which floor polish may be used.
Excessive black markings.	Inadequate amount of floor polish.	Build-up enough coats for a protective coating. Buff often.
Swelling of rubber tile.	Use of solvent type cleaners or strong soaps.	Clean swollen floor with neutral detergent; burnish with fine steel wool pad and let dry for several days. Apply a base coating to seal pores and then apply a polymeric finish. Do not use solvent waxes or strong soaps on rubber tile.
Sticking of chairs and other objects.	Insufficient drying time, especially under humid conditions.	Use finishes with a short drying time.
	Polish too heavy.	Strip the floor and start again with thin coats, allowing drying time between coats.
Warping or buckling of vinyl, asphalt or other resilient tiles.	Water detergent seepage between tiles, which damages adhesive and loosens tiles.	Clean and rinse small areas, removing all water before moving on to next area.
Loosening of ceramic tiles.	Alkaline detergents attack grout between tiles.	Use neutral detergents.
	Deposit of soap film which attacks grouting.	Do not use soap products to clean ceramic tile. Use neutral detergents.
Cracking, spalling or staining of terrazzo floors.	Alkalies seep into pores and attack cement. Acids dissolve marble.	Use synthetics, never alkalies to clean terrazzo. Clean acids immediately (even fruit juice or soft drinks) with neutral detergent or clear water.
	Rust stains caused by steel wool used for cleaning marble.	Do not use steel wool on terrazzo, clean with cotton or rayon mop.
Discoloration of vinyl floors, from rubber runners, mats, furniture and appliances.	Vinyl reacts with antioxidants in the rubber.	Clean thoroughly, apply one or two coats of commercial polymeric finish to afford resistance to rubber staining.
Powdering.	Polymeric finishes used over wax.	Strip floor by mopping & rinsing. Apply base coat, then one or two coats of polymeric finish.
	Polish too hard and brittle.	Select another brand that is durable and not brittle.
	Use of too abrasive pad.	Use polishing or mop brush if wax coating has shown evidence of abrading.
Whitening.	Use hot cleaners, solvents, or harsh alkalies.	Use neutral cleaners in warm water. Avoid alkalies or solvents on resilient flooring.
	Use of dust mops treated with oil-base agents.	Strip the floor, burnish with fine steel wool or fine nylon pads. Apply floor finish.

**Table 3-2
Waxed Floor Maintenance Guide—Continued**

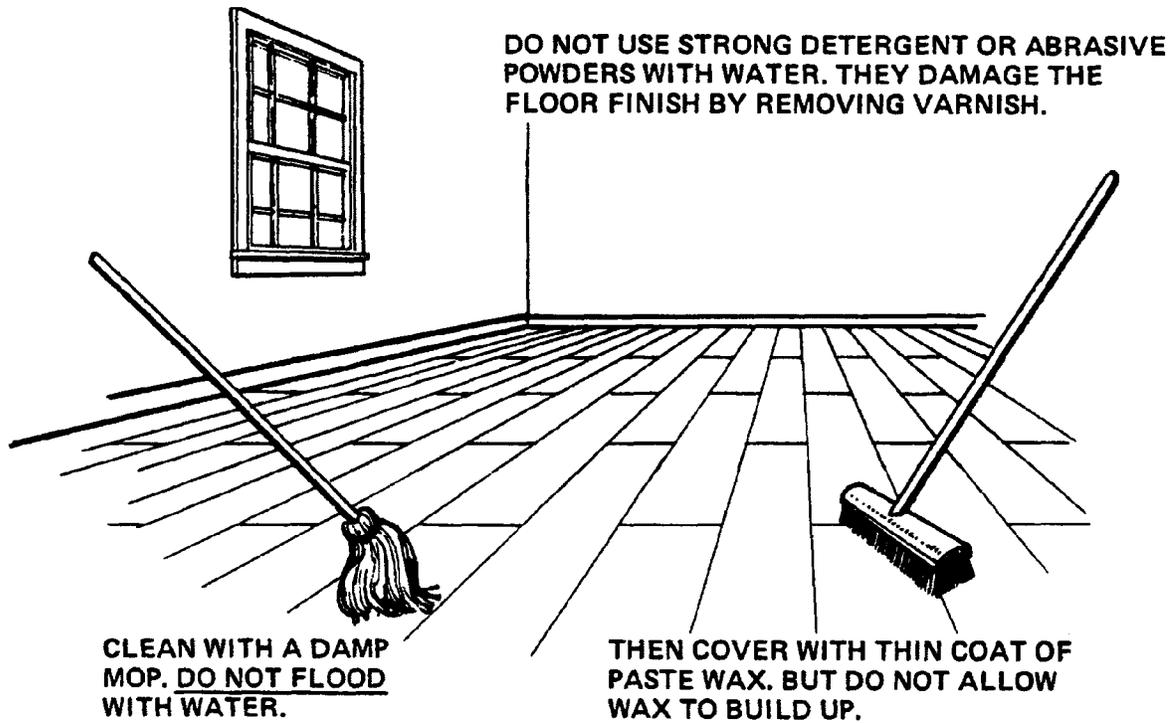
Problem	Cause	Remedy
Washed-out appearance.	Too frequent cleaning. Harsh cleaners Abrasives materials.	Use neutral detergents. Powders are not recommended on resilient floors.
Color bleeding.	Solvent cleaners or polishers. Harsh alkaline cleaners or abrasive materials.	Never use solvent products on resilient floors. Use neutral cleaners and water-emulsion finishes. Bleeding is the transfer of color from the flooring to the cleaning solution which represents an attack on the flooring. Do not use.
Color fading.	Direct sunlight. Strong cleaners.	Use curtains, screens, louvers, or tinted glass. Use neutral detergents.
Streaked appearance.	Too little polish during application. Use of dirty mops. Poor rinsing. Poor quality floor finish. Polish too thick.	Follow manufacturer's instructions. Wash mopheads after waxing. Immediately pick up water with mop, and change rinse water often. Use a better quality brand. Apply each coat evenly and thinly. It is easier to add thin coats than to get rid of one too thick.
Yellowed film.	Excessively heavy coats of polish. Too frequent application of polish, and/or infrequent stripping. Use of a floor finish having a yellow cast. Recoating entire floor every time floor is cleaned.	Apply in thin, uniform coats. Wax less often, or strip more often. Select a clear, colorless polymeric finish. Selection available at your local grocer or commissary. Do not wax the non-trafficked areas as often.

**Table 3-3
Stain Removal Data**

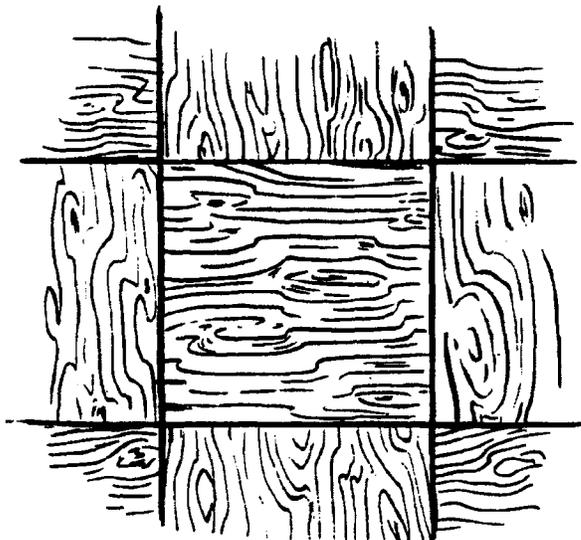
Stain	Carpets	On wood	On linoleum	On asphalt tile	On vinyl	On marble or terrazzo	On concrete
Paint	Apply turpentine or mineral spirits. Wash with strong lukewarm soapsuds. Rinse with clear water. Wipe with clean cloth and let dry.	Use oxalic acid solution or strong detergent solution.	Rub with very fine steel wool dipped in turpentine. Wash with all-purpose synthetic solution and rinse with clear water.	Rub with steel wool and all-purpose synthetic detergent solution.	Rub with very fine steel wool dipped in kerosene.	Rub with very fine steel wool dipped in turpentine.	Scrub with strong detergent in hot water, rinse with clear water.
Sole and heel marks	Shampoo lightly with all-purpose synthetic solution and rinse with clean water. Wipe off and vacuum. Brush nap.	Rub with fine steel wool or wash with all-purpose synthetic detergent solution.	Same as for wood.	Same as for wood.	Rub with fine steel wool dipped in all-purpose synthetic detergent solution.	Wash with all-purpose synthetic detergent solution and rinse.	Same as for marble.

Table 3-3
Stain Removal Data—Continued

Stain	Carpets	On wood	On linoleum	On asphalt tile	On vinyl	On marble or terrazzo	On concrete
Chewing gum	Scrape off with dull knife. Sponge off with clear water.	Remove gum with putty knife. Apply alcohol, rub with clean cloth.	Same as for wood.	Remove gum with putty knife. Do not use alcohol on asphalt tile.	Remove as much as possible with putty knife. Rub with fine steel wool dipped in all-purpose synthetic detergent solution.	Same as for wood.	Same as for wood.
Blood	Allow household ammonia to stay on only a moment. Rinse using a cloth and cold water. Brush nap.	Rub with cloth dampened in clear cold water. When stain persists, dampen cloth with ammonia.	Same as for wood.	Same as for wood.	Same as for wood.	Rub with cloth dampened in clear cold water. Bleach with peroxide, when stain persists.	Same as for marble.
Grease or oil	Apply kerosene to the spot using circular motion working from edge to center to avoid a ring. Shampoo, dry and brush nap. There are several carpet stain kits and cleaners available in commercial stores that will remove all carpet stains.	Pour kerosene on spot. Permit to soak for a short time. Wipe dry with a clean cloth. Wash with all-purpose synthetic detergent solution, rinse and dry.	Scrub with warm all-purpose synthetic detergent solution. Rinse with clear water.	Same as for linoleum.	Same as for wood.	Pour solvent on spot, cover with Fuller's earth and let stand for several hours. Repeat if necessary. Scrub with mild soapy water and rinse thoroughly with clear water.	Pour alcohol on spot. Rub with clear cloth, or spray the stain with a commercial degreaser product, and flush with clear water, according to manufacturer's instructions.
Ink	Remove immediately. Same as for vinyl.	Apply mild detergent in warm water. Mop with clear water.	Use warm all-purpose synthetic detergent solution and rinse.	Same as for linoleum.	Wash with all-purpose synthetic detergent, rinse, then dry. If stain persists, rub with cloth dampened with ammonia.	Same as for linoleum.	Same as for linoleum.
Iodine or mercurochrome	Blot immediately. Wash with all-purpose synthetic detergent, rinse and then dry.	Apply alcohol and rub with clean cloth.	Same as for wood.	Warm neutral soap solution.	Wash with all-purpose synthetic detergent, then rinse and dry. If stain persists, scrub with scrubbing powder and warm water.	Apply alcohol and cover with Fuller's earth.	Apply alcohol and rub with clean cloth.
Tar or asphalt	Same as for grease or oil.	Remove with putty knife. Soak with kerosene. Rub with clean cloth. Wash with all-purpose synthetic detergent solution.	Same as for wood.	Remove surplus with putty knife. Do not put kerosene on asphalt tile. Wash with warm all-purpose synthetic detergent solution.	Same as for wood.	Remove surplus with putty knife. Soak with alcohol and cover with Fuller's earth.	Same as for wood.



THIN VENEER ON TOP.



EXCESSIVE WATER WILL CAUSE VENEER TO WARP, PEEL OFF, AND LOOSEN.

USE COMMERCIAL WAX CLEANER; THEN COVER WITH A THIN COAT OF WAX.

Figure 3-6. Wood floors—hardwood and wood tile.

LINOLEUM FLOORS (ASPHALT, VINYL OR RUBBER TILE) CAN BE CLEANED WITH A WET MOP AND ALL-PURPOSE DETERGENT. AFTER DRYING, APPLY A THIN COAT OF WATER EMULSION WAX.

NOTE:
DO NOT USE SOAPS OR CLEANING AGENTS CONTAINING LYE.

AVOID THE USE OF EXCESSIVE WATER.

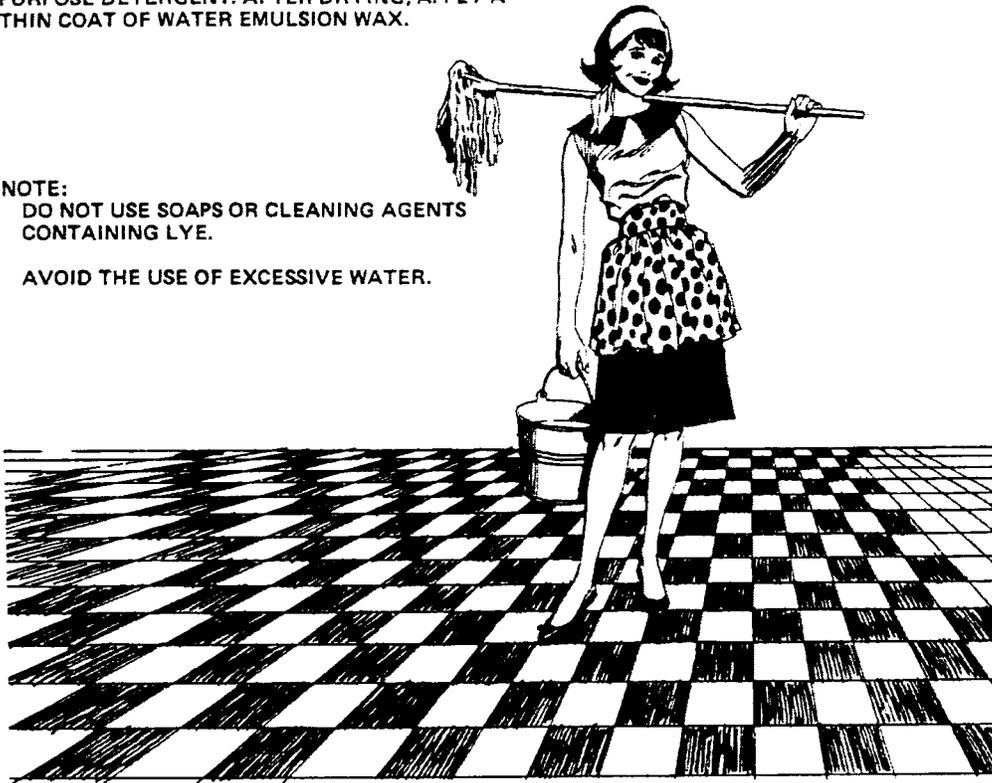


Figure 3-7. Linoleum floors.

(1) *Resilient tiles* (fig. 3-7). Included are asphalt, rubber, vinyls, vinyl asbestos, and linoleum. Basically each of these should be maintained in about the same manner. All suffer serious damage from solvents, oils, or alkali cleaners. Linoleum is particularly susceptible to water damage which deteriorates the backing (padding between the linoleum surface and the floor) and the adhesive which binds this backing to the base floor. Accordingly, use of water on linoleum should be minimized.

(a) *Heavy cleaning.* Dependent on the traffic and your daily and weekly care, there may come a time when you wish to completely refinish your resilient floor, including the removal of spent wax. Wet mop scrubbing with a good liquid detergent which has an ammonia content, will remove the old wax. Use water sparingly and remove all water as you work. A light rinsing is usually beneficial. When the surface is thoroughly dry, apply a brand of your choice of water emulsion wax. Most modern waxes do not require buffing; however, buffing will give a higher sheen. An even better appearance can be obtained by repeating the wax application as shown in table 3-2.

(b) *Periodic cleaning.* Damp mop with clear water or use liquid detergent *WITHOUT* ammonia. Apply additional water emulsion wax only if required.

(c) *Daily maintenance.* Dry sweep with mop, brush, or broom.

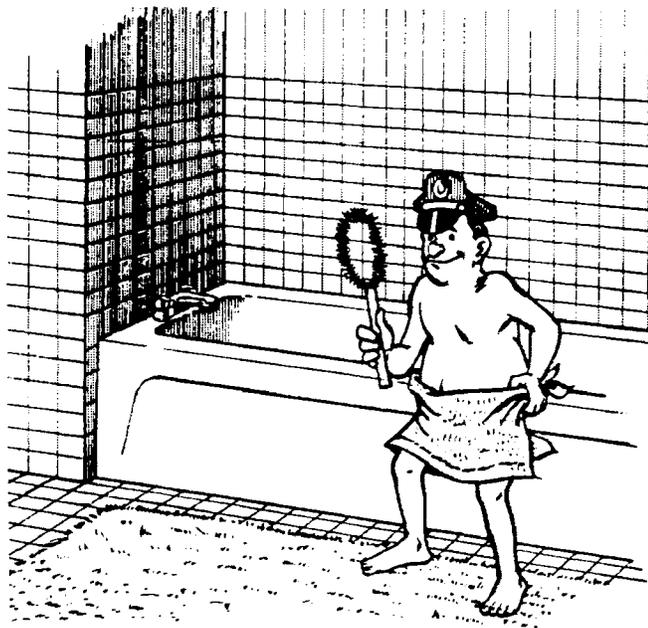
(d) *Hints.* Application of excess water emulsion wax will prevent best shine, and may result in slippery floors. To remove excess application, use detergent with ammonia. See (a) above. For best results, reserve one mop for applying the water emulsion wax and never use it for any other work. Wash it out thoroughly with clear water after each use. Tie a red string on the handle so it is easily identified. Do not pour unused exposed wax back into the wax container, as it will damage the fresh supply. Never use a paste type wax on resilient floors.

(e) *Tools recommended.* Housewives generally stock all tools required for the work. A pan about two inches deep, big enough for the wax applicator to fit in the bottom is recommended. A sponge type mop is recommended for wax applications, and an identical type for damp mopping operations. Scrubbing may be performed by same tool, or string type mop with bucket and attached wringer. Scrubbing may be accomplished with small machine which scrubs, squeezes and recovers used solution. This type of machine usually is equipped with interchangeable brushes for

scrubbing, buffing, and a special attachment for shampooing rugs. Equipment of this type is recommended if available. Check with your Self Service Supply Center for equipment availability.

(2) *Wood floors* (fig. 3-6). Generally your wood floors were refinished before you moved into your quarters. This means a sealer and wax was applied. Your job is only to keep the floor clean with cyclical dry mopping to remove dust. Infrequently damp mopping may be necessary to remove dirt spots. Use light detergent *WITHOUT* ammonia, and water. Rarely should heavier scrubbing with water be needed, but if necessary, follow same instructions as given in table 3-1 and paragraph (a) for resilient surfaces. Use water sparingly and remove as quickly as possible. For wood floors either emulsion type wax or paste wax may be used. In buying wax, read the label carefully to determine the type and recommended use. Follow manufacturer's instructions.

(3) *Ceramic tile floors*. These surfaces should be cleaned, as would any other element in the bath area. Wax of any kind should not be applied. Spray cleaners are manufactured especially for bathrooms, for ceramic tile floor and wall surfaces, and are excellent for cleaning all bath fixtures, tub, lavatory and water closet surfaces. All-purpose synthetic detergent may be used for the bathroom. Scouring powders should not be used except in cases where no other means will, achieve a clean surface. These powders, which essentially depend on abrasion for cleaning, deteriorate the finish of tile and bath fixtures.



**FOR PLASTIC WALL TILE:
ALCOHOL, THINNERS, SOL-
VENTS, NAIL POLISH
REMOVER, ABRASIVE CLEAN-
ERS, AND HEAT WILL DAMAGE.
USE ONLY MILD DETERGENTS
TO CLEAN.**

Figure 3-8. Ceramic tile floor.

(4) *Rugs and carpeting*. Rugs and carpets are designed to withstand an average amount of punishment, however the average is determined to a large extent by the day-to-day care it receives. Routine use of carpet sweeper or vacuum cleaner and immediate attention to spots and stains is required to adequately maintain the rugs and carpets. Shampooing may be accomplished by either the dry method or wet cleaning method. Details of these methods are too dependent upon the products and equipment to be used, therefore, are not described in detail here. Use manufacturer's recommendations. Consult with your Family Housing Manager for problems concerning government furnished rugs and/or carpets.

(5) *Entrance mats*. Tenants are encouraged to provide floor mats in foyers and entrance to their family housing areas as a means of reducing the tracking of snow, dirt, and water into the interiors. This precaution will save a great deal of cleaning effort, and prolong the life of floors and floor coverings.

(6) *Stain removal*. There are a number of stain removers, which may be obtained at your local supermarket or commissary. These removers can clean in three ways: By dissolving substance causing stain, by acting as a bleaching agent, or by absorbing substance causing stain. Most stains can be removed by methods recommended in table 3-3.

b. Walls and Woodwork. Walls may be washed many times and still remain in excellent condition, If there is doubt whether walls may be washed, consult your Family Housing Manager or Facilities Engineer. Cleaning material

required would consist of the following: All-purpose synthetic detergent, a large sponge or clean cloth for washing and rinsing, a soft cloth for drying, a bucket for washing solution and rinse water. As a precautionary measure, test solution in a small area not likely to be noticed on walls to be cleaned. Change cleaning solution and rinse water frequently. Work should proceed from corner to corner. Starting at the bottom of the wall wash, and rinse upward with long straight strokes, without stopping, to eliminate lap marks or streaking. The same procedure should be used for washing woodwork. Dust should be removed from window, sills above doors, and other areas where it will interfere with washing. Walls and woodwork should be dried with a soft, clean cloth as the work progresses.

c. Windows. Prior to cleaning glass, the window sash should be brushed or wiped with a damp cloth. Windows should be cleaned with a sponge dampened in clear water and dried with either a squeegee or cloth. The use of a window pad (cloth or towel) is recommended to absorb spilled water. Clear water should be used, however if local conditions make window difficult to clean, mix glass cleaner, detergent, and water as required or use a commercial glass spray cleaner. Ammonia should not be used because it dries out and loosens putty. If cleaning solution or sprays are used, they should be removed immediately from the adjacent painted surfaces.

d. Window Shades. Consult your Family Housing Manager on whether your window shades are washable. If shades are washable, place on large sheet of paper on floor. Wash with sponge dampened in all-purpose synthetic detergent solution. Rinse with sponge moistened in clear water and dry with clean cloth. Turn shade over and wash other side. Never rub hard enough to stretch cloth. Hang up to dry. When almost dry, roll shade tightly and let remain for several hours to eliminate wrinkles.

e. Venetian Blinds. Venetian blinds are generally painted with waterproof enamel and may be washed. Usually, they may be cleaned with a vacuum attachment or by using a sponge dampened in all-purpose synthetic detergent solution. Turn slats flat, and clean one side, Wipe with a clean, soft cloth. Turn slats with opposite sides facing and flat. Repeat process. Avoid getting straps wet. If slats are very dirty, and dirt is hard to remove, take blind down and wash each slat separately.

f. Metal Surfaces.

(1) *Solid metal.* Solid non-ferrous metal and stainless steel fixtures may be polished almost indefinitely without fear of wearing through metal. Most metals become dark or discolored when exposed to air. Discoloration may be removed with sponge and a washing solution of synthetic detergent and water or metal polish.

(2) *Brass.* Brass push plates, kick plates, nameplates, escutcheons, and other furnishings should be polished with a damp cloth and metal polish in accordance with the manufacturer's instructions on the container. Rub until tarnish is removed and polish with a clean, dry cloth. Try to avoid polish getting on the surface to which the fixture is attached.

(3) *Stainless steel.* Stainless steel is easy to maintain. When acid solutions are used to remove stubborn stains, be careful to rinse the solution off immediately. Detergent and water will usually remove fingerprints and other minor stains. Scratches can be removed by rubbing with abrasive or a polishing cloth in the direction of the scratch marks in the finish. Usually, washing stainless steel with clear water and wiping with a damp cloth will keep the surface sparkling.

(4) *Plated metal.* Metal fixtures are usually made of iron or steel plated with copper, brass, nickel, or chromium. Most faucets and hardware fixtures are made of brass plated with nickel or chromium. Chromium-plated fixtures should be wiped clean with a damp sponge using synthetic detergent if required. When dry, rub with soft dry cloth. Polishing with an abrasive cleaner will damage the plating. Nickel tarnishes and needs occasional polishing with a dampened cloth sprinkled lightly with polish. When dry, rub off with a clean dry cloth. Escutcheons and other door hardware are usually made of iron or steel plated with a thin brass coating which has been lacquered to prevent tarnishing. Polishing should not be attempted because it will remove the lacquer and also the brass. A clear lacquer usually lasts for several years without yellowing, cracking, chalking or collecting soil. Merely wiping with a clean cloth moistened with water, a mild soap or detergent will keep lacquered metal clean.

(5) *Aluminum.* Aluminum trim, doors, panels and finishes with a factory-applied protective clear coating should be cleaned using a sponge and mild detergent and water solution. Abrasives should not be used. Aluminum surfaces without a protective coating should be cleaned with a cleaner. Follow instructions on the container.

Chapter 4 UTILITIES

4-1. Heating.

(fig. 4-1). The general rules of good housekeeping should be applied to the area around the furnace or boilers. Flammable materials that may create a fire hazard should not be stored in heater rooms or adjacent to equipment.

a. The fuel burners must have adequate air for combustion. Louvered openings to heater rooms should not be blocked. Furniture should be placed so that it does not interfere with warm air supply and return or covered radiators.

b. Furnace filters and registers should be cleaned with a vacuum cleaner or recommended method as needed. Filters should be replaced when no longer serviceable.

c. The temperature should be the same over the surface of a hot water or steam radiator. Cold spots would indicate trapped air. If a bleed-off valve is provided on the radiator, air may be released by opening the valve until water or steam appears. If the condition persists, report it to the proper authorities.

d. Periodically verify the water level in the expansion tank of the hot water heating system by looking at the sight glass. If it appears that there is no water in the expansion tank, report it to the proper authority. If the boiler is unusually hot, turn off the burner until the boiler can be inspected.

e. Observe the safety relief valve on steam and hot water boilers and report leaks. If a continuous discharge is noted, turn off the burner and report the problem.

(1) Know where the emergency “shut offs” are.

(2) The burner may be turned off by setting the thermostat to the lowest temperature.

(3) Oil or gas valves are located on the supply lines near the equipment.

f. For sleeping comfort and conservation of fuel, set the thermostat back at night and during long periods when the quarters are unoccupied.

g. Report fuel leaks, suspected fume leaks, unusual noises or vibrations in the equipment. Early maintenance may preclude the inconvenience of a major shut-down.

h. Check the fuel tank occasionally to make sure you were not forgotten on the last delivery. If the oil delivery truck crew overflows the tank and spills oil, it should be reported.

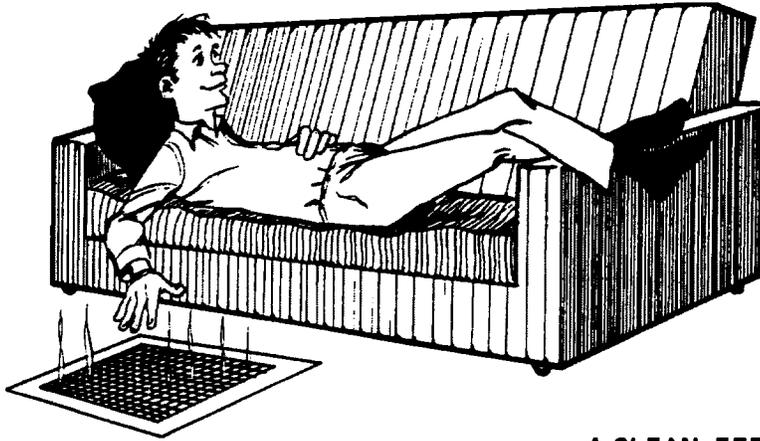
i. Do not attempt to relight gas-fired equipment if there is an odor of gas in the area. Report it promptly.

j. Do not cover registers with rugs nor place furniture over or in front of them.

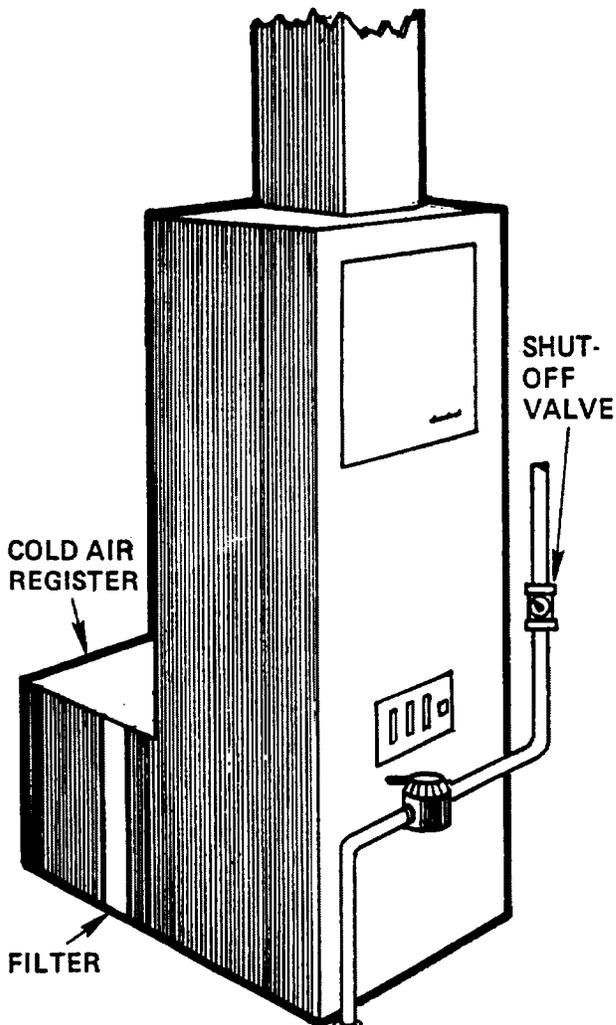
4-2. Plumbing.

a. Know where the critical water valves are. Water must be cut off to service faucets or system leaks. Water may be turned off at the main service valve to the dwelling unit, if service valves are not installed on the water lines under the fixtures. Water leaks are a nuisance and a luxury we don't need. Simple faucet and commode tank leaks should be repaired as shown in figure 4-2 and 4-3.

b. Occupants should attempt to unstop drains with a rubber suction cup (plumber's friend). To obtain the best results, the rubber suction cup must be submerged in water and the overflow openings of the sink, bathtub, or lavatory basin covered or plugged. The drain pipes on kitchen sinks sometimes have removable plugs at the bottom of the curved drain pipes (trap). If this plug is removed, the drain in most instances can be cleaned of any obstruction from the bottom. If the sink trap does not have a removable plug, the entire trap should be removed, cleaned, and replaced. Use care in replacing traps since they are equipped with compression fittings and require very little force to retighten the seals (fig. 4-4).



**A CLEAN, EFFICIENT FURNACE
MEANS
SOLID COMFORT**



**CLEAN THE FILTER OFTEN.
YOU WILL HAVE A WARMER
HOUSE.**

**CLEANING CAN BE ACCOM-
PLISHED BY THE USE OF
VACUUM CLEANER OR BRUSH.**

**NEW FILTERS MAY BE OBTAINED
FROM THE FAMILY HOUSING
MANAGER.**

**DIRTY FILTERS BLOCK
AIRFLOW.**

**DO NOT ATTEMPT TO
RELIGHT FURNACE**

IF INSUFFICIENT HEAT

- 1. CHECK THERMOSTAT
SETTING.**
- 2. CLEAN OR REPLACE
FILTER.**
- 3. CHECK FUSE AND
ON/OFF SWITCH IF
PROVIDED.**

Figure 4-1. Heating.

FAUCET LEAK REPAIR

1. CUTOFF WATER.
2. OPEN FAUCET ONE TURN TO RELIEVE PRESSURE.
3. REMOVE SCREW AND HANDLE.
4. WITH SMOOTH-JAWED WRENCH, REMOVE CAP NUT AND STEM.
5. CHECK FAUCET SEATS FOR WEAR MARKS.
6. CHANGE BIB WASHER AND/OR O-RING (IF NECESSARY).
7. SMOOTH SIDE OF BIB WASHER AGAINST SEAT.
8. REASSEMBLE AND REPLACE.
9. CAUTION - KEEP STEM OFF SEAT IN FINAL TIGHTENING OR STRIPPED THREADS WILL RESULT.

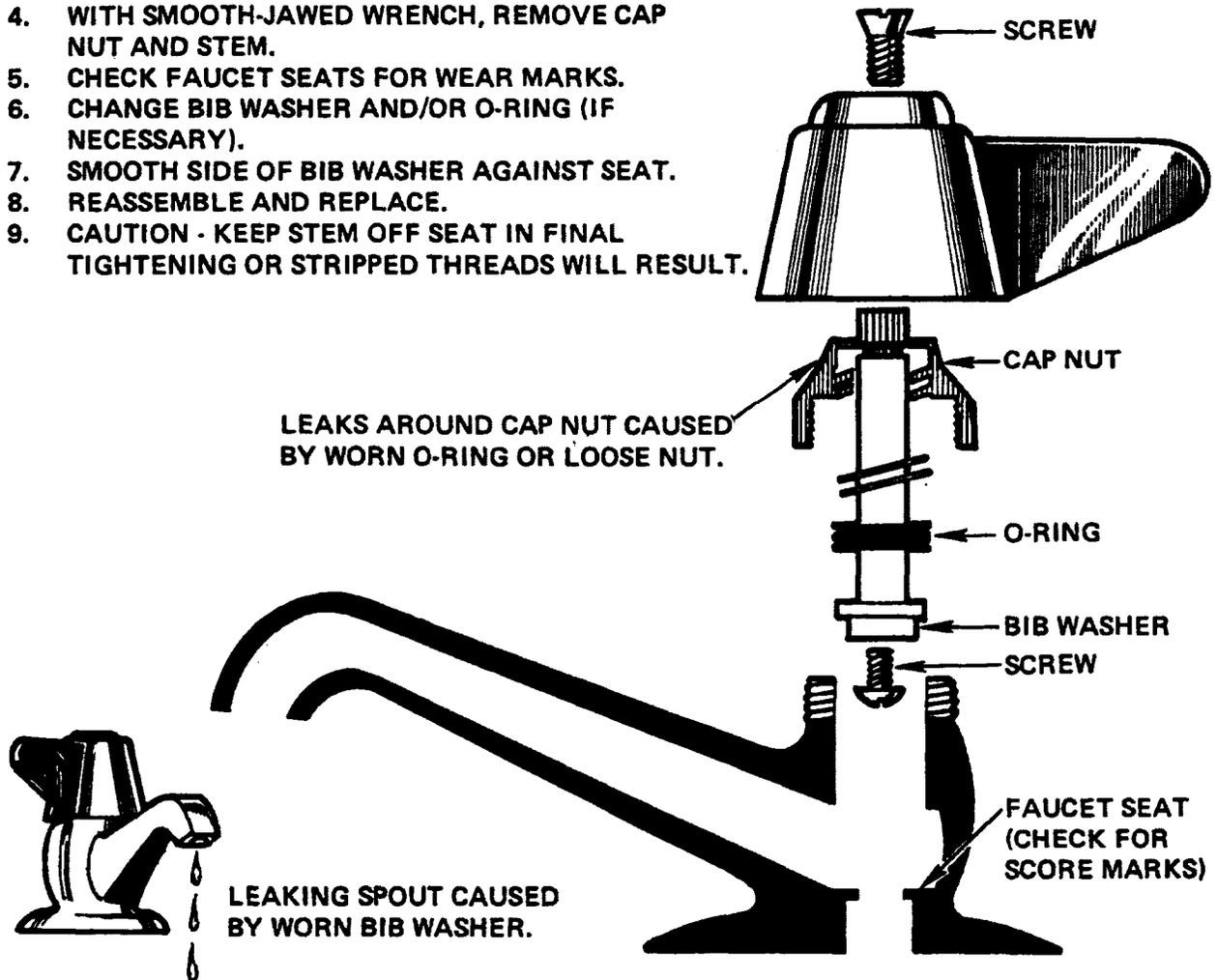
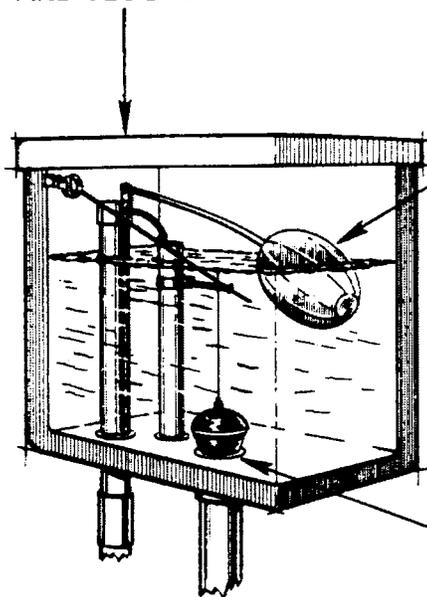


Figure 4-2. Faucet repair.

DON'T USE TANK TOP AS SHELF.
SMALL OBJECTS FALL INTO BOWL
AND CLOG IT.



FLOAT AND FLOAT ROD

CONTINUALLY RUNNING WATER?
CHECK FLOAT FOR DAMAGE.
IF IT CONTAINS WATER,
REPLACE.
IF FLOAT IS O.K., BEND
FLOAT ROD DOWN GENTLY
TILL FLOAT STOPS WATER
AT LEVEL INDICATED.

WATER DRIPPING IN BOWL
BALL NOT SEATING PRO-
PERLY. ADJUST CONNECTING
ROD TILL BALL MOVES
FREELY.

Figure 4-3. Commode tank.

c. Drain-cleaning solvents and compounds will be used only when there is a passage of fluid, and then will be used only in strict compliance with safety directions on containers. Bulky items should never be washed or flushed down any drain.

Caution: Do not mix drain cleaners and cleaning compounds. This can create harmful noxious fumes.

d. Unserviceable shower heads may be exchanged at the Self Service Supply Center (fig. 4-5).

e. Toilet bowls must never be used for disposal of leftover kitchen waste, tea leaves, coffee grounds, grease, paper hand towels, disposable diapers, sanitary pads, etc. Children should be cautioned against placing items into toilet bowls (fig. 4-6).

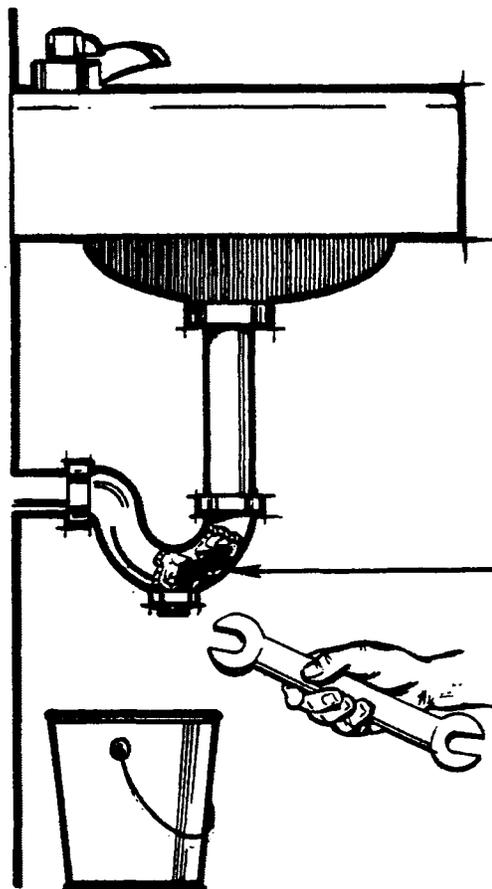
f. Tea leaves, coffee grounds, and grease do not easily wash down drains. If sewage backs up in a drain, discontinue use of all appliances which drain into the same sewer line. This will prevent other drains from backing up into the fixtures and possible overflowing.

g. Water hammer can cause serious damage to the water piping system. Most cases can be corrected by simply closing the water service valve a few turns to reduce the flow pressure. Situations that cannot be corrected in this manner should be reported.

h. In cold climates exterior hose faucet should be drained in the fall to prevent freeze damage (fig. 4-7). Shut-off the corresponding valve inside the structure and open the hose faucet after removing the hose.

i. Hot water heaters (fig. 4-8).

- (1) Keep the top of the heater free of dust and objects of any kind.
- (2) Keep the burner chamber door closed at all times unless the gas cock dial is in the "OFF" position.
- (3) Check periodically for any signs of gas or water leaks.
- (4) Set temperature control to provide hot water at 140°F or less.
- (5) Do not store any items within three feet of the hot water heater.



CLOGGED DRAINS

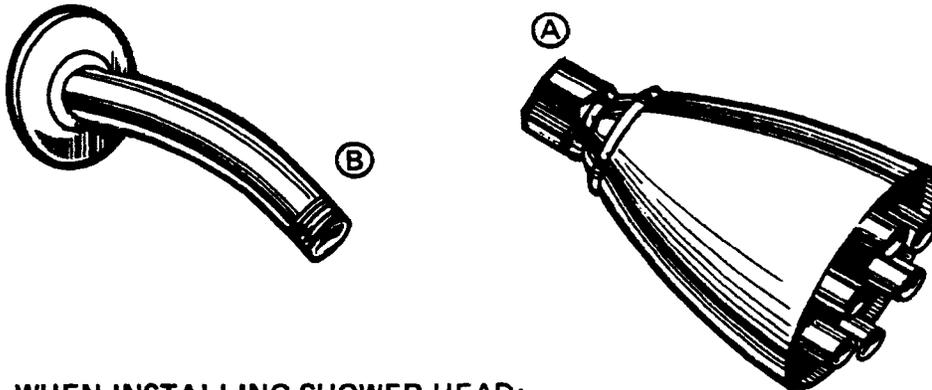
HAIR, LINT, GREASE, OR SOAP CURDS CLOG YOUR DRAINS.

CLOGGED TRAPS

CAN BE FREED BY USING YOUR PLUMBER'S FRIEND

UNSCREW NUT TO CLEAN

Figure 4-4. Drains and traps.



WHEN INSTALLING SHOWER HEAD:

TIGHTEN BALL (A) TO PIPE (B) USING CHANNEL LOCK PLIERS OR SMALL PIPE WRENCH.

Figure 4-5. Shower heads.

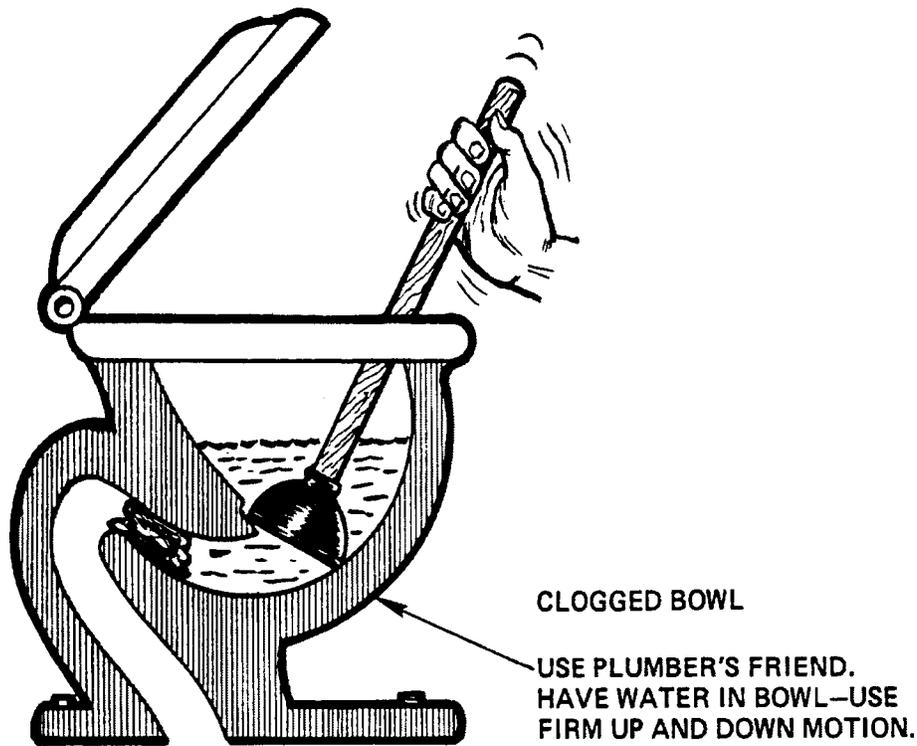


Figure 4-6. Toilet bowl.

(6) If pilot light goes out, relight following the directions shown in figure 4-8.

(7) Periodically (every three months), draw off one or two gallons of water from the tank through the tank drain at the bottom. This will remove any sediment that may be on the tank bottom.

(8) Do not plug the safety valve outlet if it leaks. Report it promptly.

(9) If there is an odor of gas in the area, do not attempt to re-light the heater. Report it promptly.

j. Gas Regulators. Caution your children to keep away from gas regulators located outside the buildings. Do not pour sand or water into air vents on top regulators. Do not bump regulators with heavy instruments as this will cause diaphragms to close and stop the flow of gas.

4-3. Air Conditioning.

Central air conditioning systems are controlled by a thermostat which is mounted on a wall within the living area of your quarters (fig. 4-9).

a. If your air conditioning system fails to operate, you should first check the thermostatic control to make certain that the controls are in the operating position. If this does not correct the malfunction, you should then check the circuit breaker panel to make certain that the breaker has not been tripped. If your unit still fails to operate it should be reported.

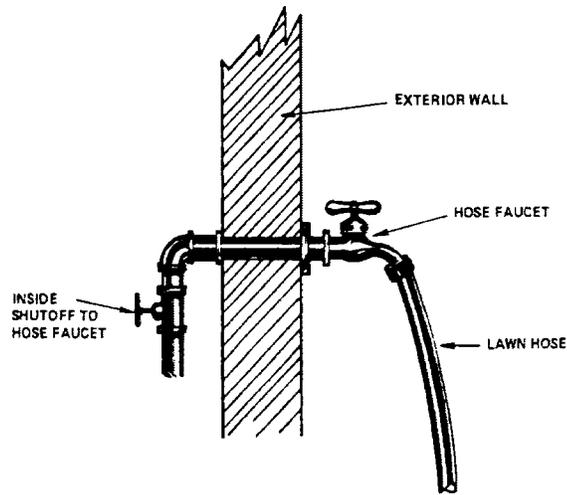
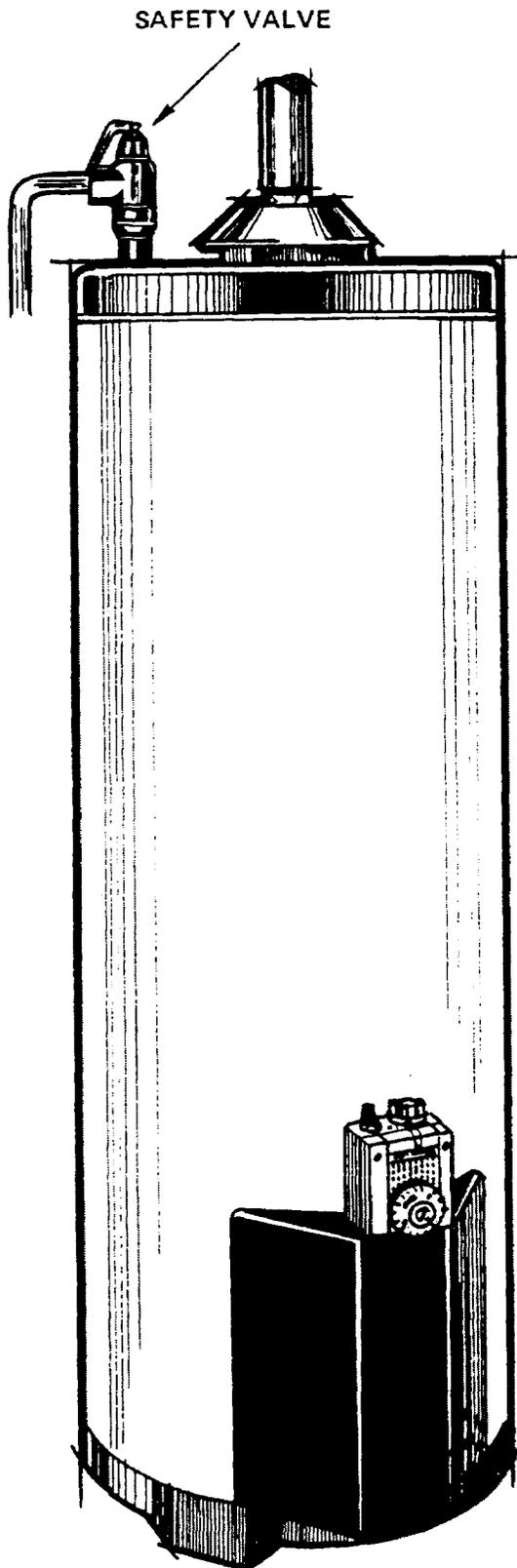


Figure 4-7. Exterior hose faucet.



1. TURN GAS COCK DIAL (A) TO "OFF" POSITION
2. WAIT SUFFICIENT LENGTH OF TIME TO ALLOW GAS WHICH MAY HAVE ACCUMULATED IN BURNER COMPARTMENT TO ESCAPE. (AT LEAST 5 MINUTES).
3. TURN GAS COCK DIAL (A) TO "PILOT" POSITION.
4. DEPRESS AND HOLD RESET BUTTON (B) WHILE LIGHTING PILOT BURNER. ALLOW PILOT TO BURN APPROXIMATELY ONE-HALF MINUTE BEFORE RELEASING RESET BUTTON. IF PILOT DOES NOT REMAIN LIGHTED, REPEAT OPERATION ALLOWING LONGER PERIOD BEFORE RELEASING RESET BUTTON. IF BURNER ADJUSTMENT IS NECESSARY TELEPHONE.
5. TURN GAS COCK DIAL (A) TO "ON" POSITION AND TURN TEMPERATURE DIAL (C) TO DESIRED POSITION.
6. IMPORTANT: DO NOT USE GAS COCK DIAL TO ADJUST GAS INPUT.

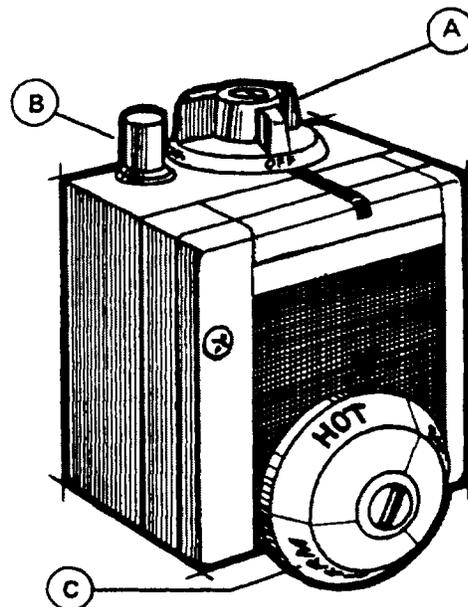


Figure 4-8. Hot water heater.

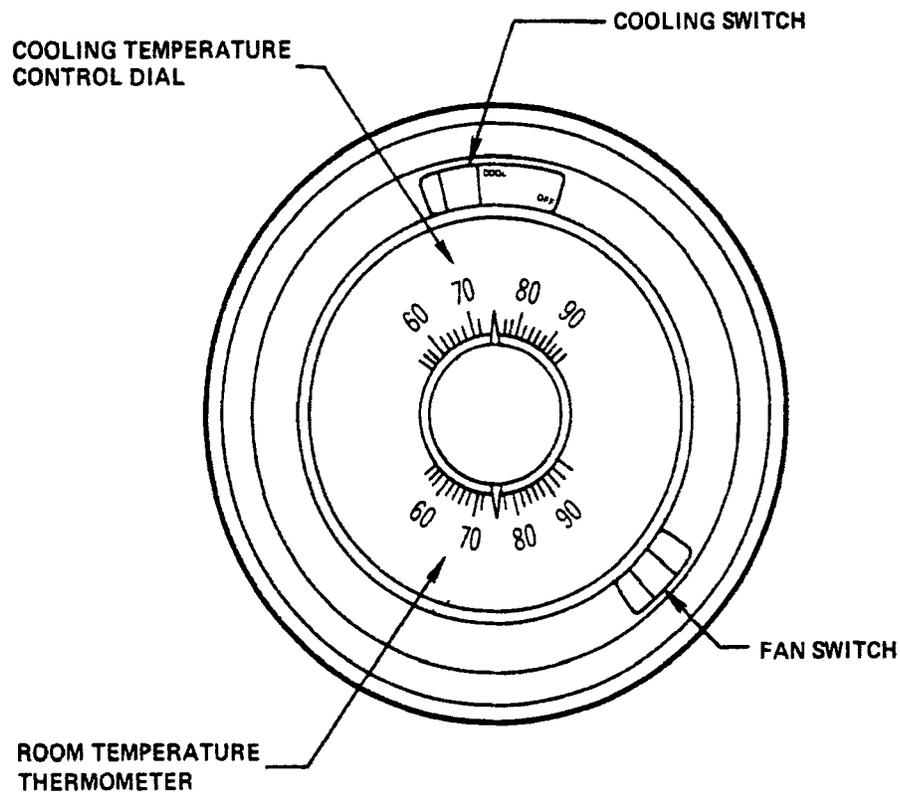


Figure 4-9. Thermostat.

b. To provide satisfactory cooling, reusable filters should be washed when dirty and allowed to dry before replacing. Throw away filters should be vacuum cleaned or discarded when no longer usable. Replacement filters may be obtained from the Self Service Supply Center. Do not operate the air conditioner or the fan when filters are removed. For filter location see figure 4-1.

c. Air conditioners should never be operated when windows are open. If you desire to open the windows in your quarters, the air conditioner should be turned off by use of the thermostatic control fan switch.

4-4. Mechanical Ventilation.

a. Fans should be cleaned at least once during the cooling seasons. Before cleaning the ventilating fan, unplug the electric cord, trip circuit breaker to the "OFF" position or remove the fuse from the electrical panel.

b. Clean fan blades, fan housing, louvers and exhaust grill with warm soapy water.

Caution: Keep motor and electrical outlet dry.

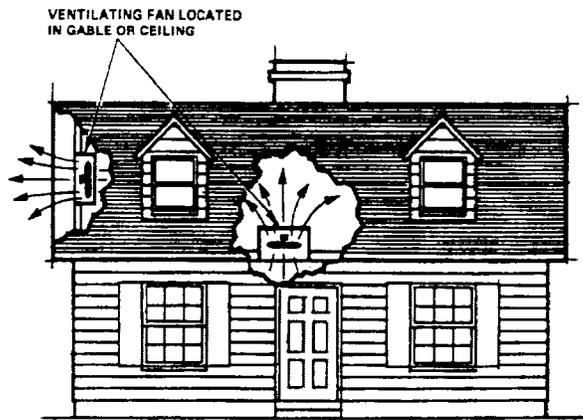


Figure 4-10. Ventilating fan location.

c. After cleaning the ventilating fan, apply a few drops of light machine oil to motor bearings, approximately every six months.

d. If the ventilating fan fails to operate, the reset button (if so equipped) of the motor should be depressed, and a check made for a blown fuse or tripped circuit breaker before reporting the operating failure (fig. 4-10).

4-5. Electrical.

The Department of the Army Policy is to allow occupants to use electrical appliances normally permitted under the usual landlord-tenant relationship. The Facilities Engineer will not permit appliances to be installed that are hazardous, objectionable, or incompatible with either the design of the building or the capacity of the utility system. See 5-1 below. The installation of any device requiring an alteration of any part of the utility system must be approved by the Facilities Engineer and installed under his supervision.

a. *Occupants Responsibilities.* Occupants should replace broken globes on lighting fixtures as well as burned out lamp bulbs (incandescent) and fluorescent lamps and starters. Occupants should also replace blown fuses and cracked or broken switch and receptacle plates and will reset tripped circuit breakers and operate reset buttons on electrically operated equipment. The occupants responsibility also includes cleaning lighting fixtures, practicing conservation of utilities and maintaining personally owned appliances. Replacement lamps and parts may be obtained from the Self Service Supply Center.

b. *Service Entrance Equipment.* This is the control point where the electricity enters the building. Other names sometimes used include: The main switch, the main panel, or just the fuse box. Quarters occupants should learn its location in order to quickly disconnect the electricity in the event of an emergency. The area in front must be kept clear in order to permit ready access.

c. *Replacing Light Bulbs.* (fig. 4-12). In most cases, the bulbs are readily accessible and require no special tools or guidance on their replacement. Recessed fixtures sometimes present a problem. The glass covers are held in place by springs. It is only necessary to pull the cover down partially in order to have access to the bulb. If a bulb breaks, disconnect the electricity before attempting to remove the screw base. A pair of long nose pliers or a spring type clothes pin are useful for this purpose.

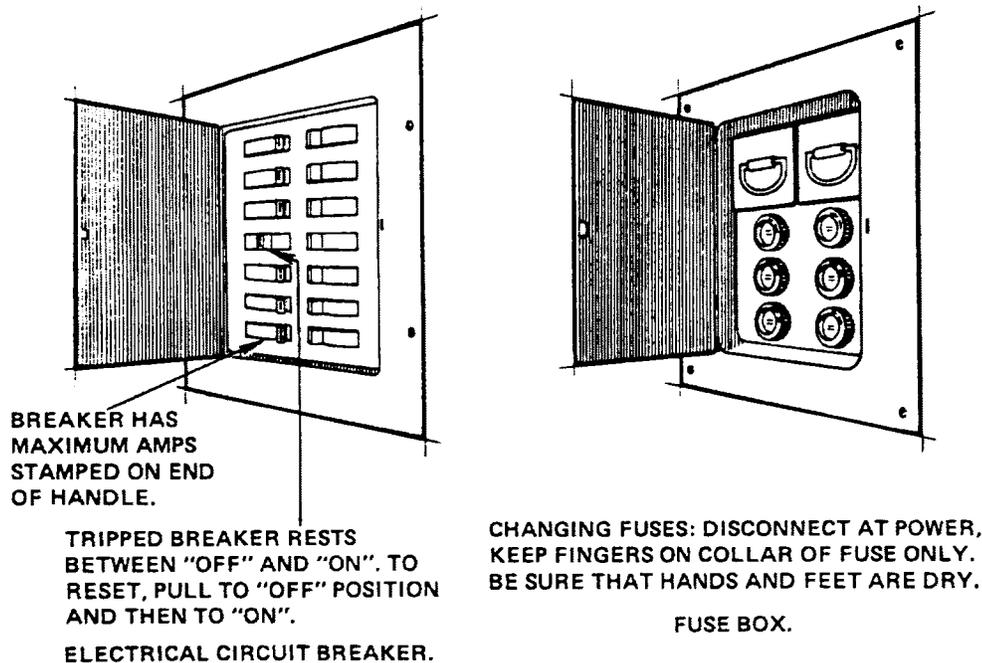


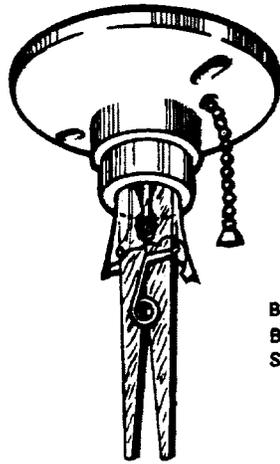
Figure 4-11. Electric circuit breaker & fuse box.

d. Window air conditioning units. Occupant-owned window air conditioning units should not be installed without first obtaining permission from installation authorities.

(1) *Circuit Breakers and Fuses.* (fig. 4-11). The main switch has a handle or a pullout fuse block that can be operated to disconnect ("Kill") all the electricity in the building. In addition, individual, branch circuits are protected by circuit breakers or fuses. Before working on any circuit, be sure the branch breaker or switch is opened. If a circuit becomes shorted (two exposed wires crossed) or overloaded, the circuit breakers will trip or if protected by fuses, the fuse will melt and break the circuit. This is normal. Always use the size fuse recommended for the circuit! NEVER use a penny or lead foil behind the fuse!! You could well burn the house down. If a fuse blows often or a circuit breaker trips frequently, and the problem cannot be isolated by pulling the lamp or appliance plugs out of the receptacles, it should be reported.

Title not used. Paragraph not used.

e. Cleaning Lighting Fixtures. As much as 50 percent of the available light can be lost by a dirty lighting fixture. The fixture doesn't even have to appear very dirty before the loss is considerable. Wash the lamps, globes and reflectors in warm water using a household detergent. Rinse and dry. You may be surprised at the increase in room brightness. An annual cleaning is generally sufficient for most fixtures, although the kitchen fixture may need more frequent attention.



**BROKEN BULBS CAN EASILY
BE REMOVED WITH STANDARD
SPRING-TYPE CLOTHES PIN.**

Figure 4-12. Removing broken bulb.

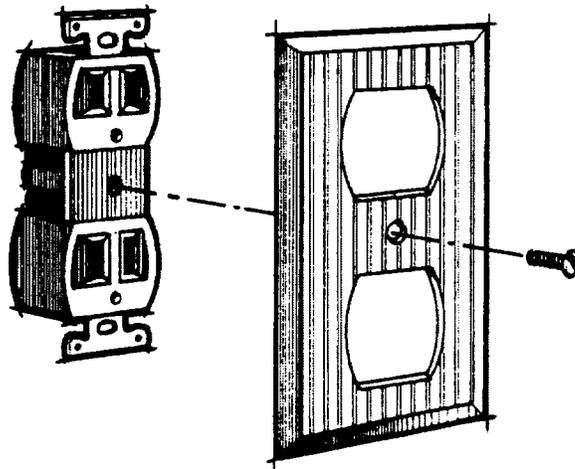
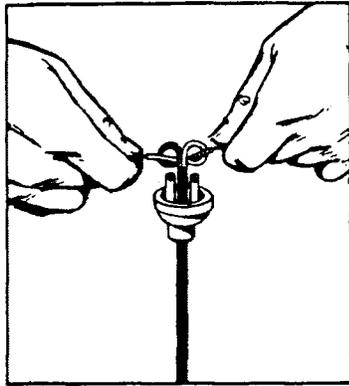


Figure 4-13. Outlet plate replacement.

f. Switch and Receptacle Plates. (fig. 4-13). Occasionally these plates crack or break and require replacement. One or two screws hold the plates in place. Use a screwdriver that just fits the slot in the screwhead in order to avoid scratching the cover or stripping the screw. Don't tighten too much or you may crack the plate! Keep the screwdriver out of the box. The wire terminals are energized and you could receive a shock!

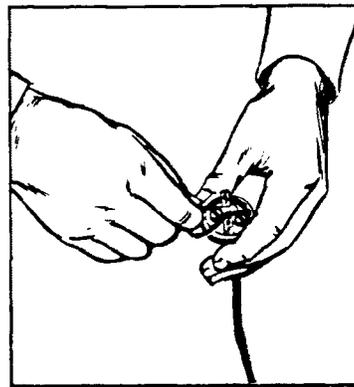
g. Cords and Plugs. Most of your personally owned appliances will have cords or plugs that may eventually require replacement. You can save yourself service charges by learning some of the simple procedures (fig. 4-14 through 4-21).

h. Precautionary Notes. The wiring in your family quarters was originally installed in compliance with local electrical codes and regulations in effect at the time of installation. Don't extend any circuits! Let the Facilities Engineer make any necessary alterations. He has trained personnel that can do the work safely.



◀ **Underwriters' knot.** To repair a plug, pare off half-inch of insulation from each wire. Twist strands tight and thread wires into plug. Then tie an Underwriters' knot, as pictured, just above exposed part of wires. The knot absorbs the strain.

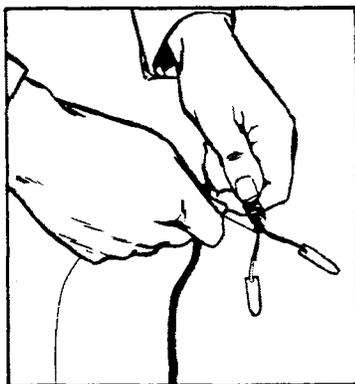
Figure 4-14. (CORDS)



▶ **Attached cord.** Pull the knot inside the plug and loop one wire around each prong. Wind each exposed and clockwise around its adjacent screw. Be sure that none of the strands from one wire touch strands of the other. Otherwise a flash and a blown fuse may result! Tighten screws.

Figure 4-15. (PLUGS)

(1) *Heating Appliance Cords and Plugs.* A special asbestos insulated cord is used on heating appliances such as irons, toasters, and coffee pots. These require special consideration as shown in figure 4-16 and 4-17



◀ **Wrapping insulation.** To repair flat appliance plugs, fasten the bared wire ends to the contact shoes. Then wrap stout linen thread around the insulated portion of the wires with the asbestos left intact. Also wrap thread around the cord at the junction of the two wires to prevent wear.

Figure 4-16. Heating appliance cords & plugs.

Watch spring guard. Lay the contact shoes back in their channels and reassemble plug. Be sure the spring guard is fitted into its slot at top of plug. This prevents undue wear on the insulation. Generally, it isn't safe to splice out cords. If one becomes frayed, replace with a new one.

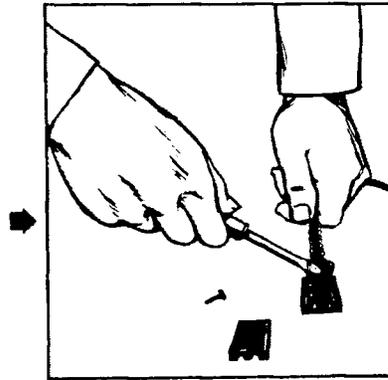
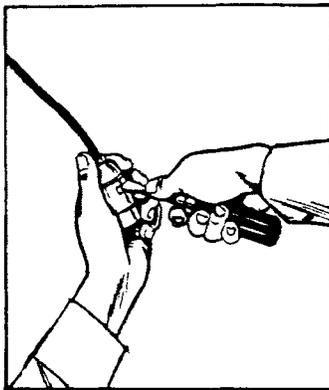


Figure 4-17. Heating appliance cords & plugs.



◀ Taking socket apart. This type of lamp socket is easy to dismantle. If the outer shell doesn't pull readily out of the cap, hold a screwdriver as shown and apply pressure on the socket cover where word "PRESS" is stamped, pulling cap away as you do.

Figure 4-18. Taking socket apart.

Making connections. Most common socket ailment involves loose connections where wires join screws. Repair them much as you would a cord plug, wrapping wires clockwise around the screws before tightening. If this fails to fix the socket, better buy a new one.

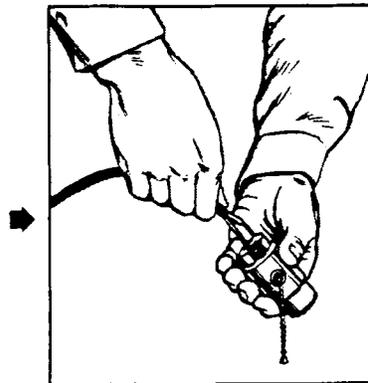
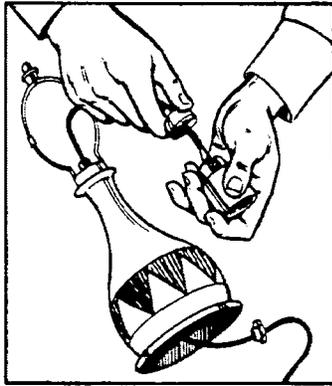


Figure 4-19. Making connections.



■ Replacing a lamp cord. It's easy to thread new cord into a lamp. Though lamp may look solid, usually you can take it all apart. Remove screw in base and start unscrewing the various sections, keeping them in order. Thread the new cord through the parts to lamp socket and attach wires.

Figure 4-20. Replacing a lamp cord.

■ Repairing a pull chain. To replace a broken pull chain, pull socket apart. Chain will be held by small clamp. In some sockets you pry clamp apart to release chain. In others, as pictures, clamp can be lifted out and chain released by raising the little trigger sticking through it. Insert the new chain.

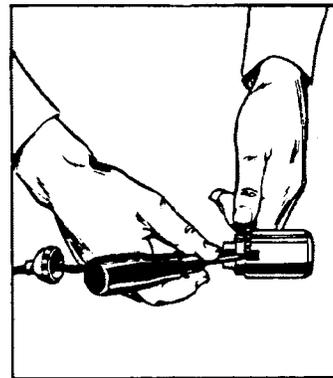


Figure 4-21. Repairing a pull chain.

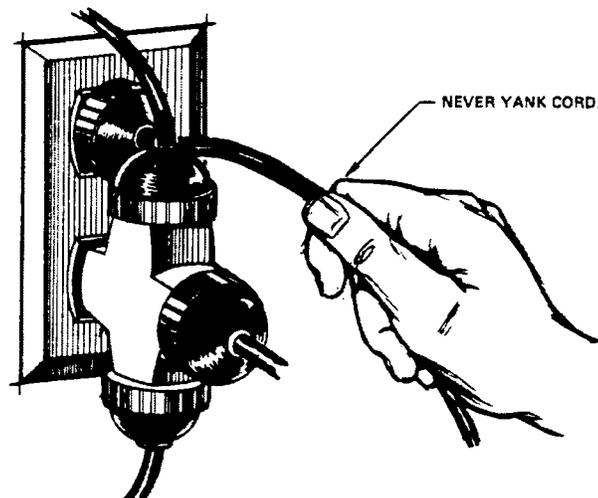


Figure 4-22. Don't use octopus outlets.

(1) *Don't overload circuits.* Too many appliances on a receptacle may cause fuses to blow (or circuit breakers to trip or even possibly a fire to start). Even if this doesn't happen, the extra load could cause voltage losses that result in the appliances failing to operate properly. An outlet with several appliances plugged in is sometimes called an Octopus Outlet. Use a single appliance per receptacle! Don't create an octopus! (fig. 4-2).

(2) *Portable cords.* Extension cords, appliance cords, and portable or flexible cords should never be used as a substitute for permanent wiring in a house. They should never be spliced Nor should they be attached to the building with straps, clamps or staples. In replacing cords, be sure the wire in the new cord is as large as the one being replaced. Don't place cords under rugs or any other place where they are subject to abrasion. A frayed cord is a source of electrical shock and a starter of fires.

Chapter 5 APPLIANCES

5-1. General.

a. Personally-owned electrical appliances with a rated capacity in excess of 1500 watts will not be placed in service without specific approval of the Facilities Engineer. Modifications necessary to install the appliance will be at the owners' expense. See chapter 4 for installation of occupant-owned window air conditioners.

b. The installation, connection, maintenance repair, disconnecting, and dismantling of all occupant-owned appliances is not the responsibility of the Government. Such work will be accomplished by the occupant or his appointed and qualified agent at no expense to the Government.

5-2. Gas Range.

(fig. 5-1).

a. Frequent cleaning is essential to avoid hazards by accumulation of grease and food drippings. When surfaces are cold do not clean them with hot water. Conversely do not use cold water on hot surfaces. Fruit juices and vegetable acids will discolor the finish and must be promptly removed. Burners and outer surfaces should be cleaned with warm water and soap. Perforations in burners may be cleaned of obstructions by using any appropriate pointed or beveled instrument such as an ice pick or nail. Lighter tubes should be cleaned with a stiff brush and warm water and soap. Clean oven with commercial cleaner.

b. Do not attempt to move the range while it is connected as this may cause gas leaks which, will endanger life due to fumes or fire.

c. When your burner won't light, check to see if the pilot burner is lit. Check to see if pilot tube is connected to burner. To relight the pilot, hold match over pilot burner opening.

d. Under no circumstances should the occupant attempt to adjust the flame by turning the orifice hood.

e. Odor of gas should be reported immediately. The occupant should not attempt to locate or repair leaks.

5-3. Electric Range.

(fig. 5-2).

a. Before cleaning your electric range, *unplug the cord*, move breaker switch to the OFF position or remove the fuse on the range circuit. Under *no* circumstances should the occupant disconnect any terminals on any portion of the range.

b. Frequent cleaning is essential to avoid fire hazards created by accumulation of grease and food drippings. When surfaces are cold, do not clean them with hot water. Conversely, do not use cold water on hot surfaces. Fruit juices and vegetable acids will discolor the finish and must be promptly removed. To clean, lift burners, remove drip pans, and remove accumulated grease and other foreign matter. Range burners must be cleaned while connected to the range.

c. Clean oven with a commercial cleaner. Clean oven frequently. Avoid leaking grease onto the walls. Do not use commercial cleaners on any aluminum parts of the range.

d. Before you call for appliance service, check the plugs and switches, fuses and circuit breaker in control panel, control dial setting, and reset button for appliance internal circuit breakers.

e. The occupant should not attempt to change the fluorescent lamp tube on those electric ranges that are so equipped. The back panel usually has to be removed.

DON'T LET FOOD BOIL OVER OR GREASE SPILL.

DO NOT COVER OVEN RACKS WITH FOIL. THIS INTERFERES WITH HEAT CIRCULATION AND OPERATION OF CONTROLS.

BE SURE OVEN AND BURNER KNOBS ARE IN OFF POSITION WHEN NOT IN USE.

DO NOT USE GAS RANGES FOR HEATING KITCHENS.

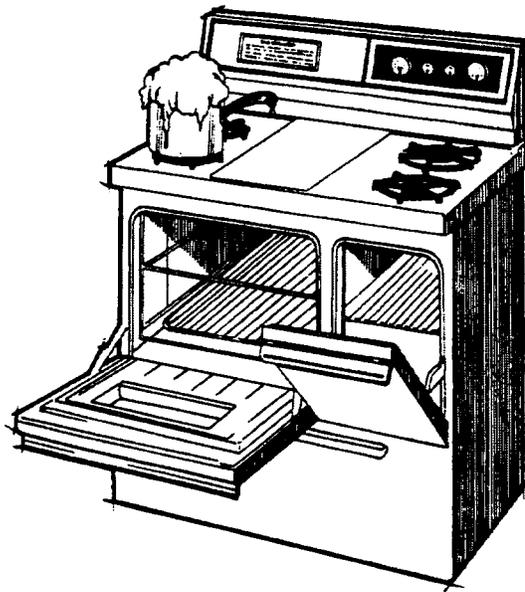


Figure 5-1. Gas range.

DO NOT REMOVE ELECTRIC BURNERS - RAISE THEM UP TO REMOVE DRIP PANS.

DON'T LET FOOD BOIL OVER OR GREASE SPILL. THEY ARE A FIRE HAZARD.

WHEN USING BOILER, PULL DRIP TRAY OUT TO PROTECT CONTROL KNOBS FROM HEAT.

DO NOT USE ELECTRIC RANGES FOR HEATING KITCHENS

DO NOT COVER OVEN RACKS WITH FOIL. THIS INTERFERES WITH HEAT CIRCULATION AND OPERATION OF CONTROLS.

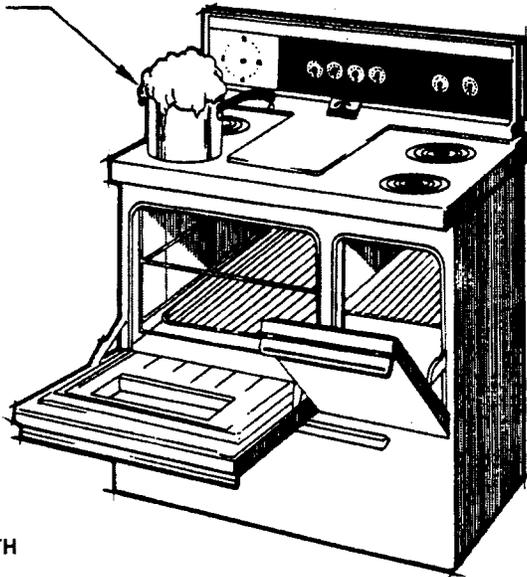


Figure 5-2. Electric range.

DO NOT USE FINGERS TO PUSH FOOD INTO DISPOSAL

**START COLD WATER RUNNING
BEFORE STARTING GARBAGE DISPOSAL
AND CONTINUE DURING OPERATION**

**USE ONLY FOR EDIBLE
FOODSTUFFS. TO FREE
ROTOR USE WOOD STICK.**

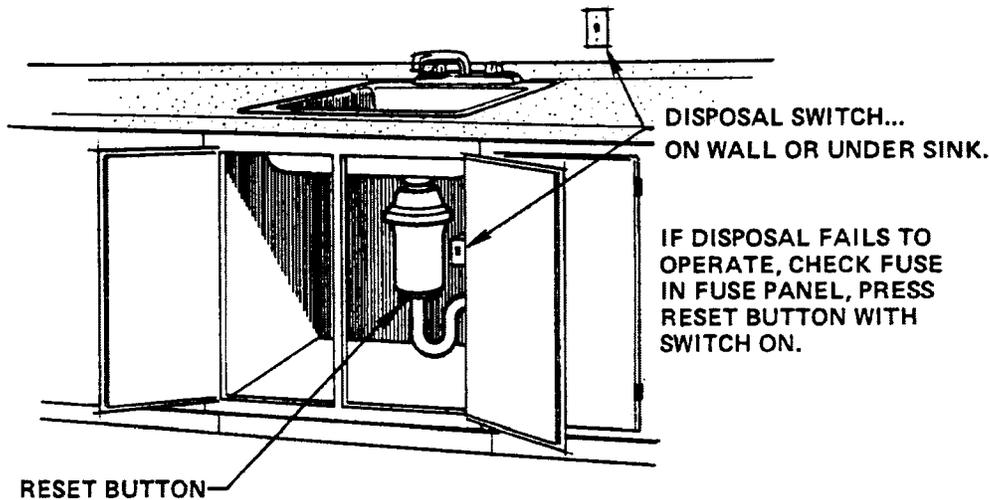


Figure 5-3. Garbage disposal units.

f. Racks and drip pans may be removed for cleaning. Clean frequently using warm soapy water or commercial cleaner. Insure proper sanitation.

5-4. Garbage Disposal Units.

(fig. 5-3).

a. Prior to starting your garbage disposal, always turn on the cold water and continue to let it run while the garbage disposal unit is operating. Let the water run a few seconds after turning the disposal unit off.

b. Do not put bones, corn husks, onion skins, celery, or other *fibrous waste* in garbage disposal units. Be especially watchful to insure that bottle caps, tableware, broken glass, china, sponges, or rags do not fall into the disposal unit. Don't put anything in the garbage disposal that you wouldn't eat yourself.

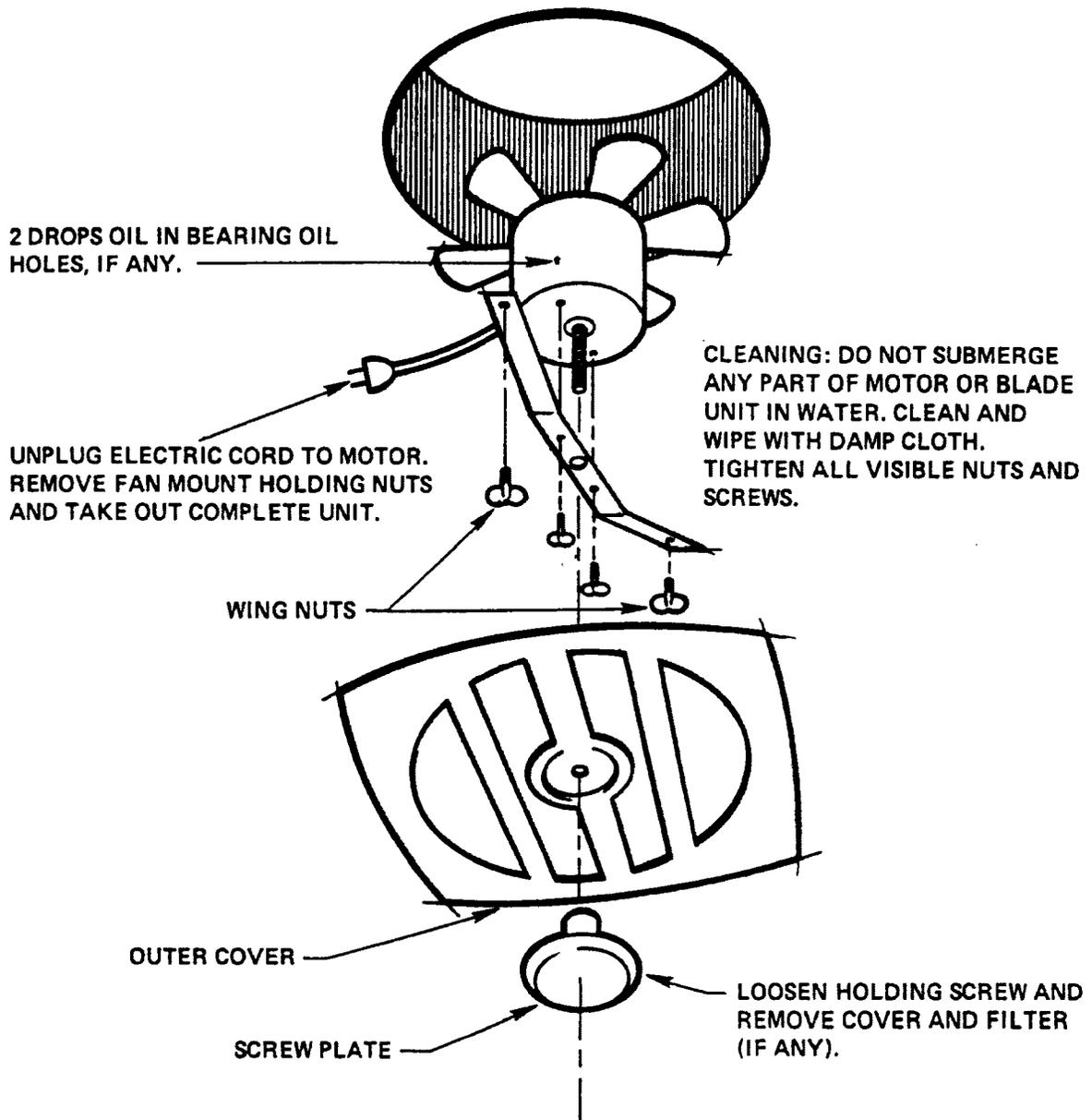
c. If unit jams, electric switch should be turned to "OFF" position and attempt made to free unit. This may be done by inserting a wood stick or hammer handle through the opening, or if a tool for freeing jammed disposal units is provided for this purpose, inserting it in the bottom of the unit. When the unit seems to move freely, the object causing the jam should be removed. All tools should be removed to a safe location before attempting to restart the unit.

d. If, in trying to restart, the unit fails to operate, the reset button on the bottom of the motor should be depressed or a check made for a blown fuse before reporting the operating failure.

5-5. Kitchen Exhaust Fans and Range Hoods.

(fig. 5-4).

a. Fan blades, vents, and hoods should be cleaned with warm water and mild soap, keeping motor dry.



CUT POWER BEFORE CLEANING BY TURNING ON FAN, THEN REMOVE FUSE OR CUT BREAKER UNTIL FAN STOPS. AFTER CLEANING, REINSTALL, CONNECT, AND REPLACE COVER, THEN TURN ON POWER.

Figure 5-4. Kitchen exhaust fans.

b. Range hoods are of the ductless or ducted type. Ductless hoods in addition to the steel or aluminum filters in the ducted hood located on the underside of the hood are also equipped with an activated charcoal filter which is not cleanable but requires periodic replacement.

c. Do not use replacement filters made of fiberglass, foam plastic, or paper in kitchen exhaust fans or range hoods. (Even under normal use, glass filters will break off and fall into food being prepared; filters made of foam plastic or paper material are highly combustible.) Always use steel or aluminum (washable type) filters for replacement. Generally, kitchen exhaust fans and range hoods come equipped with aluminum or steel filters; these filters should not need replacing if cleaned frequently and handled with proper care. Replacement charcoal filters for ductless hoods may be obtained from the Self Service Supply Center.

5-6. Dishwasher.

a. Outside should be cleaned with warm water and mild soap; do not use abrasive cleaners.

b. Food scraps should be removed and dishwasher loaded so that objects will not fall or come in contact with the impeller.

c. Only the recommended amount of dishwashing detergent should be used.

d. If unit fails to operate, the reset button (if so equipped) should be depressed. If this does not correct the malfunction you should then check the electrical panel for a tripped circuit breaker or blown fuse before reporting the operating failure.

e. Do not overload the dishwasher.

5-7. Refrigerators.

(fig. 5-5).

a. Clean and defrost refrigerators frequently. Do not permit frost or ice to accumulate more than ¼ inch before defrosting. Do not use sharp instruments to remove frost. Empty and clean drip pan after each defrosting.

b. Self defrosting or no frost refrigerators, including condense drip pan, located in cabinet below the refrigerated compartment should be cleaned at least once a month.

c. Wash interior surfaces of refrigerator with soap and warm water. Rinse with a warm water solution of baking soda and dry all surfaces. Use soap and water to clean exterior surfaces, rinse with clean water and thoroughly dry. Avoid excessive use of soap and water or rinsing solutions as they may seep into insulation and cause permanent deterioration.

d. All spillage within the refrigerator should be cleaned up immediately.

e. When vacating quarters, clean and shut off the refrigerator and leave the door open.

FREEZER COMPARTMENT:

DO NOT USE SHARP INSTRUMENTS TO REMOVE FROST OR ICE.

DON'T FORCE DOORS CLOSED AGAINST FOOD CONTAINERS. DON'T DROP OBJECTS ON PLASTIC SHELVES.

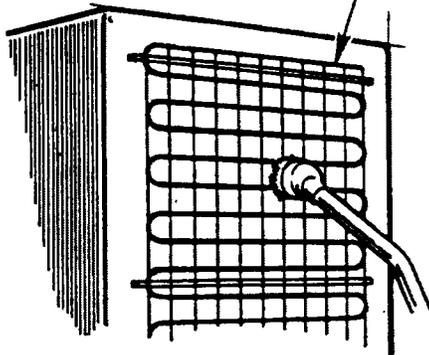
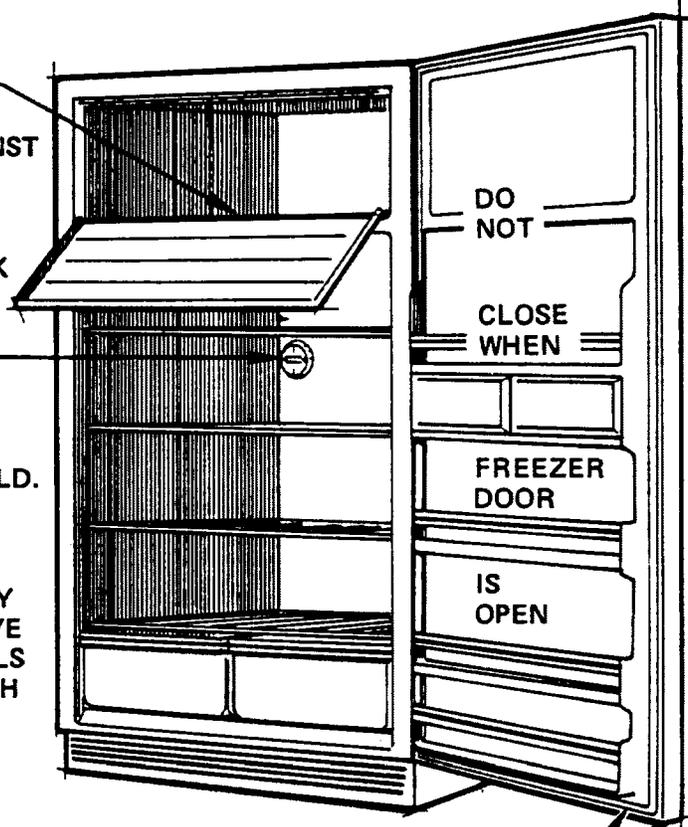
WHEN REFRIGERATOR FAILS, CHECK PLUG AND PANEL FUSE. MAKE SURE CONTROL DIAL IS NOT IN "OFF" OR "DEFROST" POSITION.

IF IT RUNS TOO MUCH:

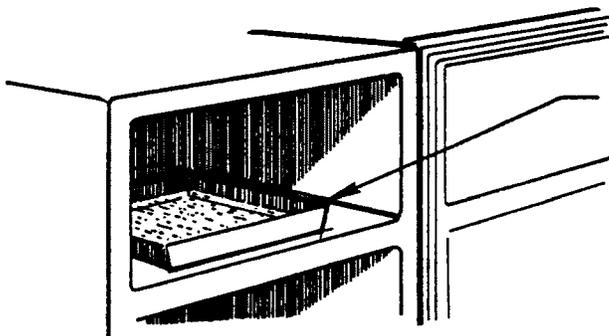
CONTROL DIAL MAY BE SET TOO COLD.

MAY NEED DEFROSTING.

AIR FLOW OVER COILS ON BACK MAY BE OBSTRUCTED OR COILS MAY HAVE AN ACCUMULATION OF LINT. IF COILS ARE COATED WITH LINT, CLEAN WITH VACUUM HOSE OR BRUSH.



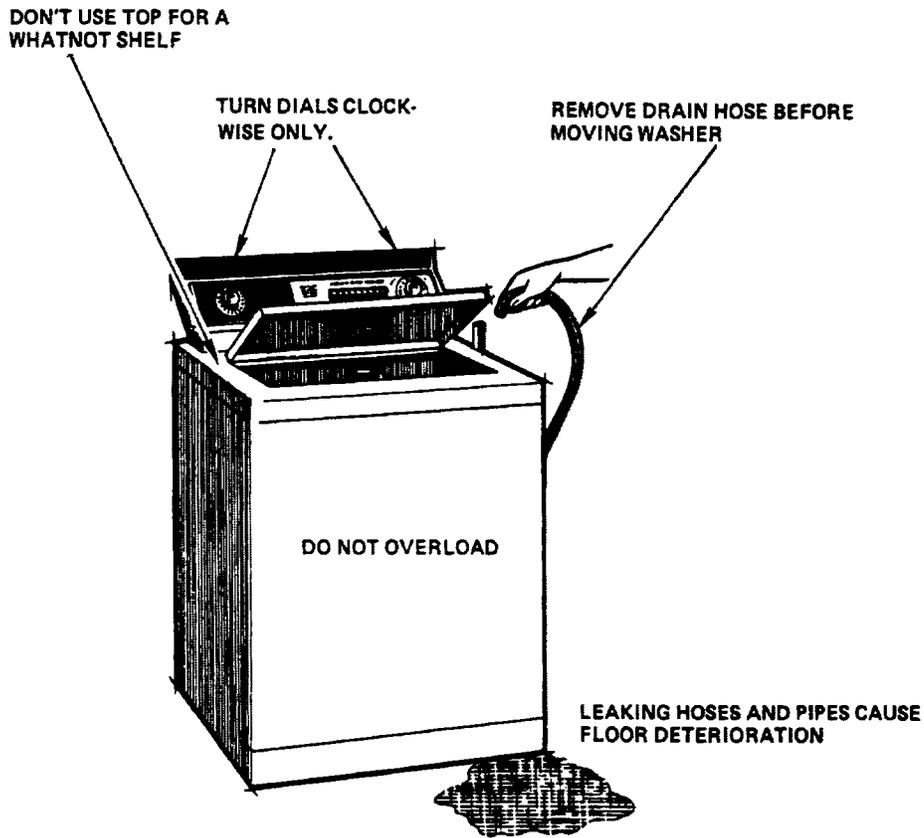
CLEAN RUBBER GASKET AROUND DOORS.



TO HASTEN DEFROSTING, PLACE A PAN OF HOT WATER IN THE FREEZER COMPARTMENT.

KEEP ALL VISIBLE SCREWS TIGHT.

Figure 5-5. Refrigerators.



CLEAN THOROUGHLY WITH WARM, SOAPY WATER
TOO MUCH SOAP WILL BLOAT THE WASHER.
RESULT? A WET MESS. . .

Figure 5-6. Clothes washer.

5-8. Clothes Washers.

(fig. 5-6).

- a. Keep washers as level as possible. Don't overload. For best results use the correct amount of non-sudsing detergent.
- b. Keep filter or strainer clean. Avoid clogging problems. Don't stick the drain hose too far (i.e. more than 6") into the drainpipe.
- c. Before calling for service, check the electric cord plug, control dial setting, fuses or circuit breaker in electrical panel.
- d. Maintenance and repair of occupant-owned clothes washers are the responsibility of the occupant.

5-9. Clothes Dryers.

(fig. 5-7). Keep dryer as level as possible. Clean cabinet using warm, soapy water. Clean lint filter after each drying operation. Lint filter must be in place during operation. Do not overload. Keep area to rear of dryer clear of obstruction. Repair and maintenance of occupant-owned dryers are the responsibility of the occupant.

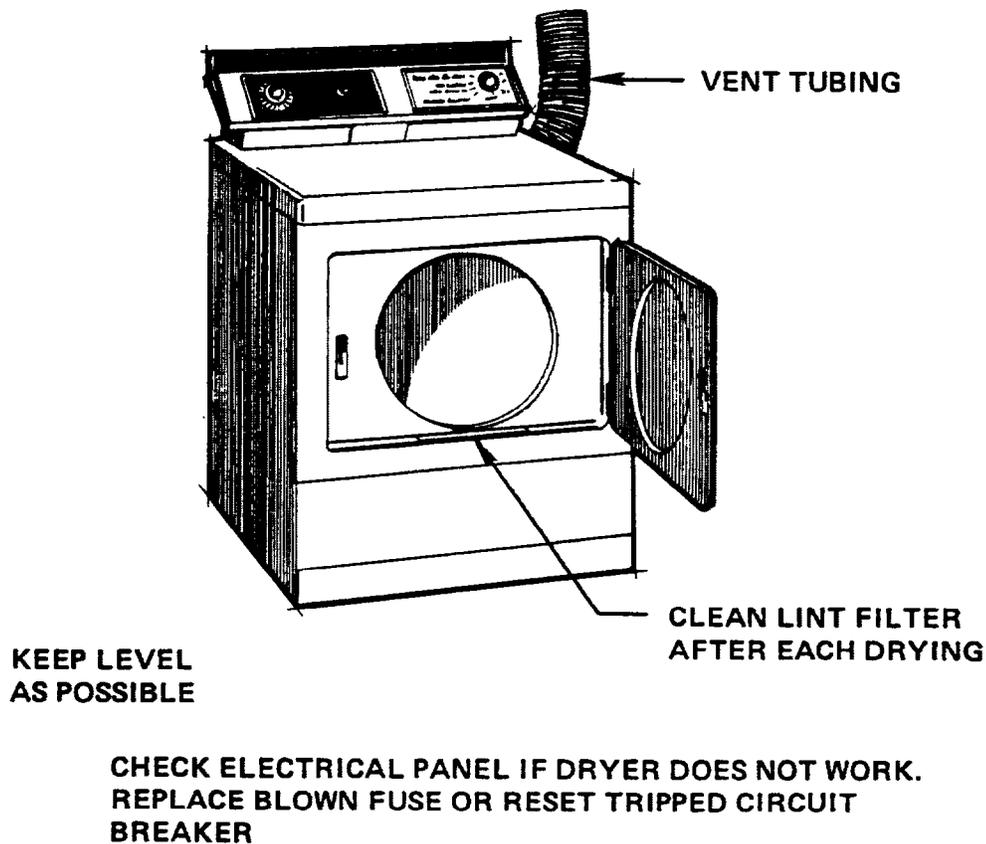


Figure 5-7. Clothes dryers.

5-10. Television Antenna.

a. All occupant-owned outdoor antenna installations require approval of the Facility Engineer before being put into service.

b. The Facilities Engineer or the Family Housing Manager should be contacted prior to installation. Specific requirements and helpful hints will be provided and a schedule arranged for inspecting the installation. It is of utmost importance that the antenna mast is properly grounded. This will protect your set and the building from lightning damage. A lightning arrester should also be inserted in the antenna lead-in conductor and grounded to the mast ground.

Chapter 6 MAINTENANCE OF GROUNDS

6-1. General Requirements.

Quarters occupants are responsible for taking proper care of trees, shrubs (except as stated for trees and shrubs), flower beds, lawns, parking areas, walks, areas around garbage containers, and adjacent streets. Policing of appropriate portions of parkways in front of or behind houses is also your responsibility. Occupants of duplexes are responsible for policing around the entire building during any period in which one-half is vacant. The area of responsibility is generally defined as extending to the edge of adjacent streets, parking lots, or halfway between buildings or adjacent quarters. For those units which border common grounds, the area extends 75 feet from the quarters or as directed. Any questions regarding boundaries shall be referred to the Family Housing Office. Vehicles will not be driven on lawns at any time. Tent caterpillars, bagworms, lawn moths, loose dead turf, fairy rings (toadstools), premature leaf fall, red mites or other conspicuous evidence of disease and/or insect infestation will be reported.

6-2. Maintenance of Lawns.

a. Watering of Lawns. Lawns will be watered sufficiently to prevent the grass from drying out, but water should not be wasted. Thorough watering (approximately 1 inch) each seven to ten days is more effective than frequent shallow watering. Information on time and rate of irrigation for the specific equipment and conditions will be available from the Family Housing Manager or Facilities Engineering Office. Sprinklers will not be left in one place long enough to cause water runoff from the lawns. During hot dry periods, watering may be restricted or scheduled. A method of notifying occupants is optional, but it may appear in the daily bulletin. Certain types of lawns in various areas require winter irrigation.

b. Mowing, Edging and Equipment.

(1) Mowing of lawn areas is accomplished as often as necessary to keep lawns and other grassed areas in a neat appearing condition. Grass should be cut to a minimum height of one and one half inches. Certain turf grasses, such as St. Augustine and Kentucky blue grass form a better turf, use less water, resist invasion of weeds, and retain a darker green color if mowed at 2 inches to 3 inches height.

(2) Lawns require edging along walks, driveways, roadside curbs, shrub beds, and other places where necessary to present a neat appearance. Grass should be edged along paved surfaces (fig. 6-1).

(3) Lawnmower adjustable to recommended heights, edger, hand fertilizer spreader, and miscellaneous garden tools may be issued to each occupant to the extent that funds are available.

c. Renovating, Seeding, Sodding and Fertilizing.

(1) Minor lawn repair includes the filling of holes and reseeding of small bare areas or sodding as applicable depending on the type of turf grass.

(2) Renovation includes raking and removal of thatch (old clippings and dead matted material) from the turf. Aerification requirements for compacted soils in play areas and the like will be referred to the proper authority.

(3) Removal of grass clippings at the time of mowing is usually not required except for certain local conditions.

(4) New areas will not be planted or seeded without written approval from the proper authority.

(5) Fertilizer may be applied twice annually (spring and fall) by the Facilities Engineer personnel when fertilizer is available. Quarters occupants are requested to cooperate when the fertilizer is being applied by keeping both front and back yards clear of toys, pets, and other obstacles that would interfere with the movement of equipment through the yards. When the Facilities Engineer does not have the manpower and equipment to spread the fertilizer, it may be delivered to each family housing occupant. The time of delivery with instructions for spreading will be supplied through the daily bulletin or other means.

d. Topsoil. Top soiling of lawns is not a recognized turf grass maintenance practice. Indiscriminate application of topsoil can change the drainage pattern for the yards and possibly cause problems with the house foundations. The Facilities Engineer will make an on-site inspection of locations where topsoil is requested prior to delivery of topsoil.

e. Weed Control. A lawn well fertilized, properly mowed, watered, and maintained requires very little weed control. However, should infestations of weeds become established quarters occupants are encouraged to do all they can to control weeds in their lawns. Chemicals for controlling weeds will not be issued to quarters occupants. There are no restrictions to purchasing and applying weed control chemicals provided that the instructions on the label are followed. Do not spray chemicals on windy days. Herbicides should be applied when no rain is anticipated for several days. Lawns that have been sprayed should not be watered for at least 24 hours to prevent washing the chemicals off the plants. Periodically the Facilities Engineer may apply weed control chemicals. Quarters, occupants are expected to cooperate by keeping toys and other objects off of lawns and by refraining from watering lawns for 24 hours after the weed spray has been applied.

6-3. Maintenance of Trees and Shrubs.

a. Pruning.

(1) *Trees*— Major pruning is accomplished by the Facilities Engineer to keep the trees pruned and growing in their natural shape. Minor trimming of small branches under $\frac{3}{4}$ inches diameter) overhanging walks, driveways, doorways, or roofs of houses is the responsibility of the occupant. Branches removed should be cut back to the first or second fork in the branch. All cuts should be made flush with the branch or trunk of tree so that stubs do not remain. Sprouts (suckers) growing from the base of trees should be kept removed.

(2) *Shrubs*— Major pruning of shrubs is to be accomplished by the Facilities Engineer to keep each shrub cut to its natural shape for the individual plant and to prune at the proper time for flowering shrubs. Occupants may do minor pruning to remove long sprouts or shoots from, occasional shrubs or rose bushes. Shearing of formal hedges is the responsibility of the occupant.

(3) *Vines*— The occupant should eliminate or keep trimmed back any vines that may cause damage to or interfere with gutters, downspouts, windows, doors, screens, roofs, or other structural parts of buildings or that interfere with ventilation or exterior painting operations.

b. Maintenance of Flower and Shrub Beds.

(1) Occupants are encouraged to plant flowers to add color to the family housing areas and provide natural beauty to the surroundings.

(2) Flower beds should not be established in the middle of lawns but kept in locations that will complement the house or the lot.

(3) Shrub and flower beds should be cultivated and kept free of weeds to maintain a neat, clean appearance. Occupants are encouraged to permit lawn grasses to grow under the trees adjacent to the trunk except where tree pits may be necessary in dry areas to add additional water.

c. Planting of Trees and Shrubs. (fig. 6-2).

(1) Replacements or new plantings of trees and shrubs will conform to the location and species required by the Installation's Landscape Planting Plan. This applies to plants furnished by the individual or the installation.

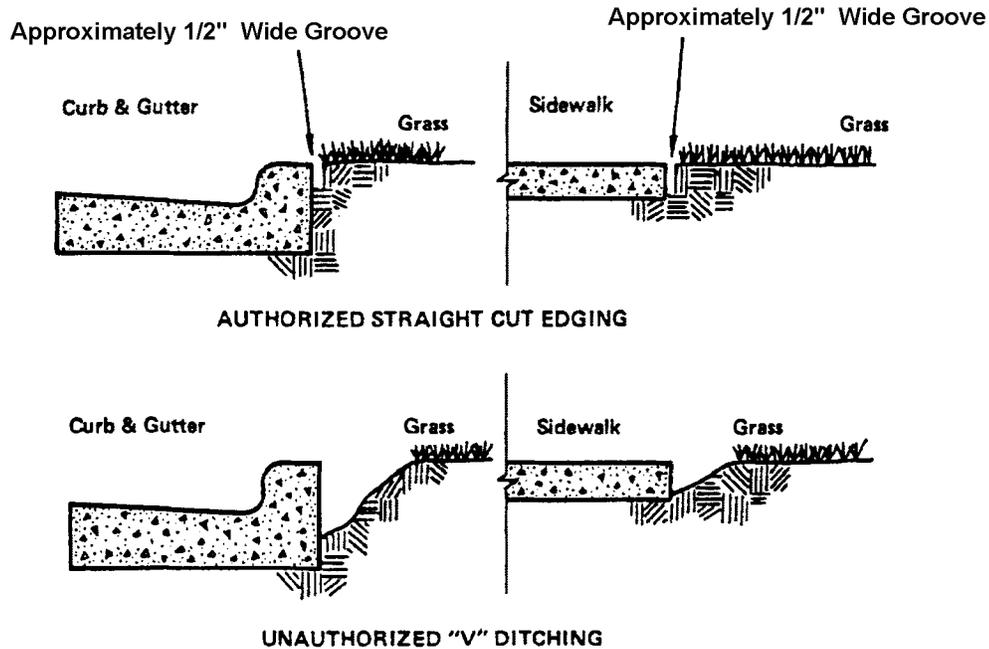


Figure 6-1. Edging lawns.

(2) Landscape plantings should be made in accordance with guidance furnished in the following sketches.

(3) Trees and shrubs damaged or destroyed, by the occupants including those destroyed by children and pets will be replaced by the occupant prior to moving from the assigned quarters. Destroyed materials, not replaced in size and kind, may be charged (materials and labor) to the occupant before a release is issued.

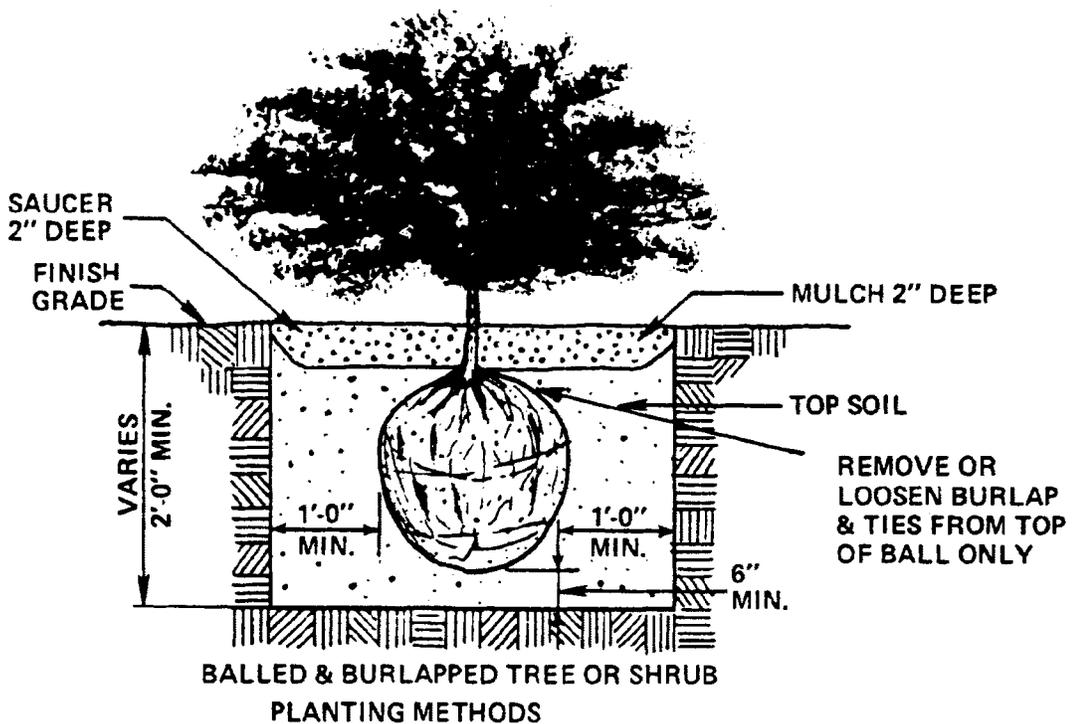
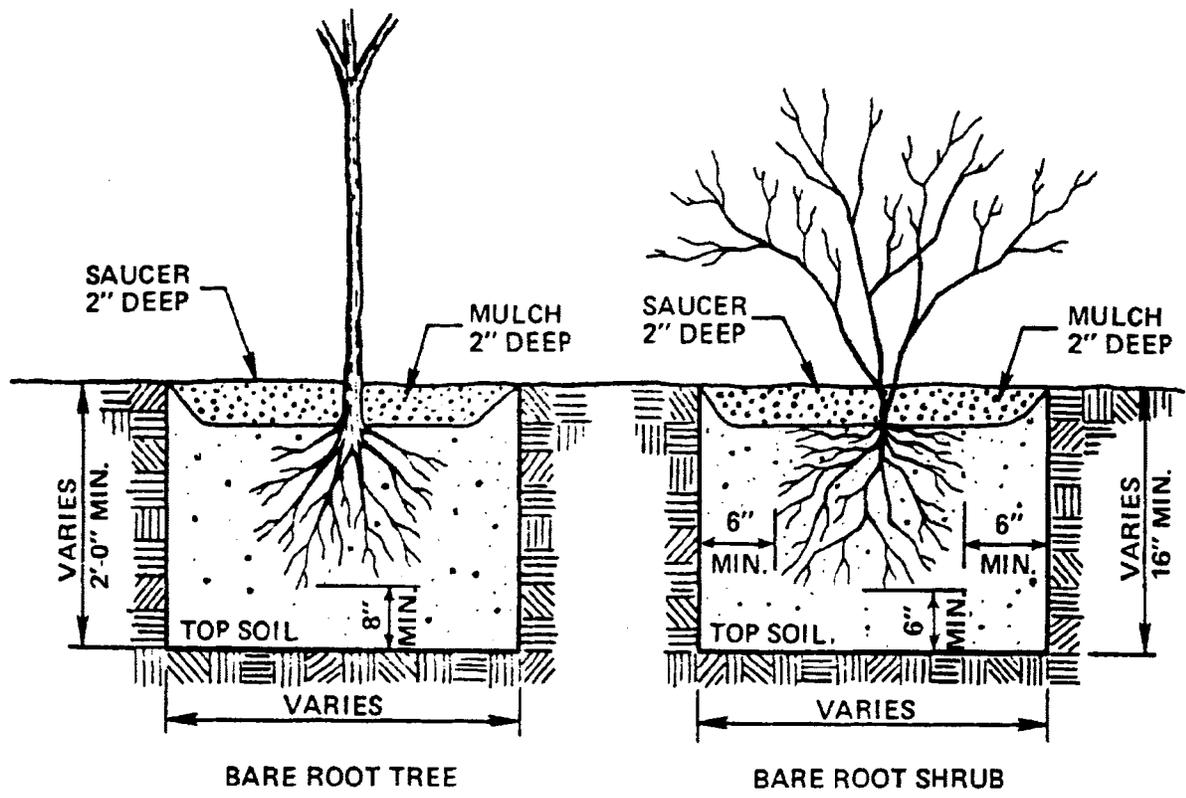
d. Storm Damage or Drainage Repair. Severe erosion, clogging of storm drains, or the damage to trees as result of rain and wind storms will be reported.

e. Cleanup and Special Requirements.

(1) All dead plant life and man-made trash should be removed from building areas, from flower beds and lawns, and from beneath shrubs and trees. The collected rubbish should be placed in suitable containers for pickup by Engineer trash trucks. Arrangements for removal of large items of trash should be made with the proper authority. Since family quarters occupants are responsible for police of streets adjacent to quarters, rubbish should not be swept into streets.

(2) No signs, other than the name plates are authorized in the front lawn of family quarters. Name plates and lawn signs may be picked up at the Family Housing Office or other designated location. Changes in grade should be phoned in to the Family Housing Office.

(3) Occupants departing on official duty or leave will insure that arrangements are made for adequate care of assigned quarters grounds during their absence.



**BALLED & BURLAPPED TREE OR SHRUB
PLANTING METHODS**

Figure 6-2. Planting of trees and shrubs.

Chapter 7

MAINTENANCE OF PAVED AND STABILIZED AREAS

7-1. Maintenance of Walks, Patios, Steps, Platforms.

Private drives, carports, and similar areas giving direct access to family quarters are the responsibility of the occupants of the facility and must be maintained in a neat and serviceable condition.

7-2. Oil and Grease on Pavements.

Accumulations of oils and greases on pavements, particularly bituminous (black-top), should be prevented. Approved cleaning compounds for removal of grease and oil accumulations should be used.

7-3. Gravel Areas.

To maintain smoothness and to provide proper drainage, gravel areas should be raked periodically.

7-4. Ruts and Eroded Areas.

Ruts and eroded areas along sidewalks, driveways, patios, and similar areas should be filled to deter further extensive erosion. Extensive erosion, the repair of which is beyond the capabilities of the occupants, should be reported to the proper authority.

7-5. Snow and Ice Removal.

Removal of snow and ice from areas outlined in *a* above are the responsibility of the occupants.

a. Snow and ice should be removed without delay after each storm and at such times during storm as is required for safety.

b. In instances where ice, sleet, or freezing rain cannot be readily removed from steps and walks, light sprinklings of approved chemicals or sand may be used to prevent slipping.

c. Salts and other ice melting chemicals which are injurious to vegetation should not be used. Urea, a non-corrosive chemical not harmful to vegetation, is very effective in melting ice and snow at temperatures above 15° Fahrenheit.

Chapter 8

UTILITIES CONSERVATION

8-1. General.

Most of you are aware that there is an energy shortage in the United States. This shortage is in the basic fuels such as coal, gas, and oil and in electricity which is produced from these fuels. It is the duty of every member of the military family to reduce the use of energy to the minimum required.

8-2. Conserving Electricity.

Occupants should:

a. Turn off lights when not actually needed.

b. Lower the temperature settings on heating type appliances such as water heaters and ranges.

c. Turn off motors and appliances when not being used. This includes air conditioners, television sets and the like.

8-3. Conserving Heat.

a. The family housing occupant is encouraged to use the heat necessary for personal comfort. Just use the same discretion that would be applied if the occupant paid the bill separately.

b. Temperature setback during the night and during periods the quarters are unoccupied.

c. Report any condition that you observe that you feel may increase the fuel consumption. Typical examples are: Broken window glass, poor weather stripping, fuel leaks, improper burner adjustment, etc.

d. Adjust the domestic hot water temperature to 140°F or less to conserve fuel and prevent accidental burns from the hot water.

e. Do not use kitchen ranges or portable heaters to supplement the heating system.

f. Keep windows shut except for occasional ventilation.

8-4. Conserving Water.

a. Lawn sprinkling should be kept to the minimum required for a durable turf. Lawn sprinklers should not be left

operating unsupervised or so long in one spot as to cause excessive saturation. Water should not be allowed to overflow onto curbs or streets. At times, the Facilities Engineer will schedule watering days for specific areas. Check your daily bulletin or other media.

- b.* Faucets should be shut off tightly.
- c.* The use of a continuous running stream of water from a hose for car washing should be avoided. If a hose is used, it should be equipped with an automatic shut-off nozzle to control the flow of water. It is preferable that a pail or bucket of water be used.
- d.* Repair all leaky faucets promptly.
- e.* Use hot water sparingly. Do not allow hot water to run continuously during shaving or washing dishes.

Chapter 9

FIRE PREVENTION AND PROTECTION

9-1. Fire Occurrence.

- a.* Anyone who discovers a fire, smells smoke, leaking fuel oil, or gas will:
 - (1) Immediately warn all occupants and help them leave the premises. Close all doors when leaving.
 - (2) Notify the fire department promptly by use of the nearest telephone, outdoor fire reporting telephone, or manual fire alarm box.
 - (3) Wait at a safe distance to direct the fire department and tell them if all persons are out of the building. Never return to the burning building.
- b.* Emergency telephone numbers and building identification are posted on or near each telephone.
- c.* Outdoor fire reporting telephones or manual fire alarm boxes, if provided, are usually located at street intersections. The pole on which they are mounted is identified by a red band with white edges and a red light for ready night identification.
- d.* To report a fire, distinctly state your name and say "I am reporting a fire in quarters (give building and unit number) at (give street name and address)." A terse description of the fire situation is helpful. Never hang up the phone until advised that no further information is needed.
- e.* Fires that have burned themselves out or fires extinguished before there has been time to call the fire department will be immediately reported to the fire department.
- f.* For safety reasons, fire extinguishers are purposely omitted from family quarters. Females and children are subject to injury when using extinguishers, particularly on grease fires in kitchens. Efforts usually do not prevent fire spread, delay family evacuation, and delay fire department notification.
- g.* The head of the household is responsible for instructing the family on what to do in the event of a fire or other emergency.
 - (1) Plan and discuss escape from all rooms in the family unit, especially with the children. Practice the plan as appropriate. Anticipate problems and alternate routes of escape.
 - (2) Learn how to escape from windows to the outdoors or to a porch roof, but never jump from upper windows.
 - (3) Don't panic! Get down and crawl. Smoke and hot gases rise so the air is fresher close to the floor. Covering the face with a wet cloth can also protect against smoke and hot gases.
 - (4) Do not open a closed door before touching it to see if it is hot. If the door is hot, brace it with your foot or shoulder and open slightly. If the escape route is untenable, close and if necessary brace the door shut and use an alternate escape route or a window. If the window is on an upper floor, open it slightly from the top and bottom and breathe the fresh air at the bottom while awaiting rescue.
 - (5) Plan how to call the fire department. Instructions on use of a fire reporting telephone or a manual fire alarm box can be obtained from the fire department.
 - (6) Prearrange an outside rendezvous point to account for all members of the household.

9-2. After the Fire.

After a fire, property will not be distributed or removed except by direction of the Fire Chief or Facility Engineer. It will be released as soon as the circumstances of the fire have been determined. The occupants of quarters are responsible to safeguard military property against further loss or damage after a fire.

9-3. Fire Prevention.

The head of the household is responsible for enforcing the following fire prevention measures.

a. Never leave young children unattended. Familiarize your babysitter with your family's fire plan. The babysitter's first duty is to get the children out. Written instructions are prepared by the installation fire department.

b. Every effort will be made to keep matches, lighters, candles, flammable liquids, and similar materials out of the hands of children. Children should not be allowed to play in heater rooms, attics, under buildings, in or near vacant buildings or construction sites.

c. Smoking in bed is a dangerous habit. Noncombustible ashtrays of ample size should be used for disposal of smoking materials. Determine that all burning embers are extinguished prior to emptying ashtrays. Inspection of upholstered furniture prior to retiring is advisable if there has been smoking. Emptying ashtrays into metal containers outdoors is the safest method of disposal. Plastic containers should not be used indoors for disposal of smoking materials.

d. The use of attic spaces or heater rooms for sleeping purposes, even temporarily, is prohibited. Aged or infirmed personnel should sleep on the ground floor if possible. The fire department should be specifically notified when and where invalids are housed.

e. Cooking utensils should not be left unattended over a turned-on kitchen stove heating element. Fire in cooking utensils may be extinguished by putting a cover on the utensil and turning off the stove. Always protect your hands and never use water on grease or attempt to carry the utensil outdoors. Window curtains and towel racks should be properly secured with sufficient clear space so that they will not be ignited by cooking stove heating elements. Moving a gas fired stove may break the gas line.

f. Use of gasoline and similar flammable liquids for cleaning purposes is prohibited. Pilot lights on kitchen stoves, furnaces, and hot water heaters can ignite vapors of gasoline, paint thinners and similar flammable liquids. Gasoline-powered equipment will only be used and serviced outdoors.

g. Flammable solvents or fuels must be stored outdoors or in well ventilated sheds outside the quarters proper—*never* inside the quarters or in an amount over one or two gallons. Underwriters' laboratories listed safety cans should be used. Glass or plastic containers should never be used for flammable liquids. Flammable liquids should not be added to bleaches or detergents as the resultant mixture or vapors given off may be especially hazardous.

h. Paints, varnishes, floor waxes, furniture polishes, and similar materials in tightly sealed metal containers are permitted in amounts not to exceed immediate requirements. Storage should be described for flammable liquids in the preceding paragraph.

i. All rags, waste, mops, or other material permeated with flammable liquids and the like will be cleaned or disposed of outside the family quarters to prevent a fire from spontaneous ignition.

j. Responsible quarters occupants will insure that filters or lint screens on heating, air conditioning, and clothes drying equipment are kept clean to prevent overheating and a possible fire. Clogged or obstructed filters and exhaust ducts must not be used until cleaned by the occupant or the Facilities Engineer personnel as appropriate.

k. Deficient chimneys, flues, stacks, heating equipment, gas connections, kitchen ranges, kitchen exhaust system, water heaters, electric light fixtures, wall switches and outlets, and any other potential fire hazards will be reported to the proper authority.

l. Heater rooms should not be used for storage. Combustible material should not be placed within 3 feet of any portable heating device or wall, floor, or space heater. Combustible material will be kept clear of heating devices in "dry-closets."

m. Open fires are prohibited outdoors except in proper outdoor cooking equipment. Indoor fireplaces must not be operated unless suitable fire screens are provided. Ashes or embers must always be put in metal containers outdoors. Flammable liquids, other than those specifically labeled for lighting charcoal, must never be used to "quick-start" fires.

n. Good housekeeping, care, and cleanliness are synonymous with good fire prevention. Don't block exits. Combustible accumulations must not be allowed in basements, attics, storage areas, closets, under stairs, under buildings and porches. Cleaning prevents grease from accumulating around cooking equipment. Other Facilities Engineer personnel have been alerted to report such deficiencies.

o. Electrical circuits. See chapter 4.

p. All combustible decorations will be flame retardant and kept to the minimum. Special instructions relative to preventing Christmas trees from becoming dry will be published prior to the holiday season. Such instructions will include recutting the base of the tree diagonally above the original cut and rigidly supporting the tree in a container filled with water.

q. Vehicles will yield right of way to emergency equipment including fire trucks. Vehicles will not be parked within 15 feet of fire hydrants.

9-4. Fire Prevention Inspections.

A fire in the home generally is a reflection of someone's carelessness. Every member of the family should be familiar with the hazards that cause fires and assist in eliminating them. Self inspections are encouraged, using checklists furnished by the Fire Department. The Facilities Engineer Fire Prevention and Protection Division will inspect your quarters if invited by you or when there is reason to believe that guidance is needed, or on a sample basis, using quality assurance techniques, as a test of the fire prevention program effectiveness.

9-5. Fire and Smoke Can Kill.

DON'T UNDERESTIMATE THE ABILITY OF FIRE OR SMOKE TO KILL!

Chapter 10

GARBAGE AND REFUSE

10-1. Quarters Occupants should:

- a.* Place all household garbage and refuse in portable cans or multiple refuse containers where furnished. Bulky items too large for containers will be placed alongside.
- b.* Wrap all wet, odorous garbage or waste material in wrapping paper or newspaper, and place in a paper bag, prior to depositing in a refuse container. Do not expect small children to reach high to place garbage in containers.
- c.* Maintain cans, covers, and collection points in a clean and orderly condition. Collection crews are not responsible for policing collection points.
- d.* Keep access way clear to multiple refuse containers to permit trucks to empty them. Keep children away from such containers, especially when being picked up or returned to their sites.

10-2. Additional Occupant Instructions.

- a.* Quarters occupants serviced with cans will set their garbage cans out near the street by 0730 hours on designated days for pick-up by refuse collections crews.
- b.* After garbage and refuse collectors have emptied garbage cans, promptly remove empty cans from streets and replace them in racks by houses. Report irregularities in collection or any refuse problems.
- c.* Refuse generated as a result of grounds maintenance activity (grass clippings, leaves, stones, etc.) will be put in bags or boxes. Those residing in single or duplex type quarters will place packaged refuse at curbside. Residents of multi-unit dwellings will utilize the area adjacent to the fenced garbage container inclosure or as otherwise designated. Materials so deposited will be picked up on week day designated by the Facilities Engineer.

Chapter 11

PEST CONTROL

11-1. A Variety of Pests.

There are a variety of pests that can be found in and about your quarters. While cockroaches are usually the most common, others include: rats and mice, ants and silverfish, fleas and ticks, flies and mosquitoes, clothes moths and carpet beetles, bird and clover mites, powder post beetles and termites, and pantry pests (flour and spice beetles and moths).

11-2. Occupants Can Help Keep Quarters Pest-free.

There are many things that occupants can do to enjoy pest-free living.

- a.* Check groceries before they are brought into quarters for presence of cockroaches, mice, and pantry pests.
- b.* Keep stoves and walls free of spattered grease and food particles.
- c.* Rinse out empty soft drink and beer containers.
- d.* Return or dispose of empty drink containers. Stored food containers are attractive to cockroaches.
- e.* Store food in covered metal, glass, or plastic containers.
- f.* Get rid of junk. Stored trash can become a home for a wide variety of pests.
- g.* Wrap garbage and place it in containers with tight-fitting lids, or if multiple refuse containers are used instead of garbage cans, be sure that the refuse container doors are kept closed.
- h.* Scrub out garbage cans (if they are used) at least bi-weekly during summer months. Weekly is better.
- i.* Keep window screens in good repair.
- j.* Keep screen doors closed.

- k. Store wool goods in moth-proof containers. Some dry-cleaners can moth proof wool. When available, make use of this service.
- l. Use mouse traps to get rid of the occasional mouse. Gum drops or jelly beans make effective baits.
- m. Use traps for controlling rats. Singed bacon makes a good bait.
- n. Check pets for fleas and ticks.
- o. Use insecticidal dusts or flea collars to control fleas and ticks on pets. Be sure to read the label. Some insecticides and some flea collars should not be used on cats. Watch that small children don't have a chance to chew on flea collars.
- p. Aerosol "bombs" are effective in controlling flies and mosquitoes. Read the label to be sure that you buy the right "bomb."
- q. Insect repellents can make outdoor living more enjoyable.
- r. Pesticides are toxic materials. For safety sake, use only those pesticides which do not require on-the-job dilution. Don't overdose.
- s. Ventilate quarters after using pesticides.
- t. Termites, powderpost beetles, carpet beetles, ticks, and sometimes, cockroaches, rats, and mice problems require assistance of trained personnel to obtain control. Call your pest control shop for help.
- u. Be ready for the pest control crew when it arrives. For example: remove food, cooking utensils, and dishes from cabinets and from beneath the sink.
- v. If wood fences are permitted, keep them away from the building. Termites can gain access to the building from wooden fences.

11-3. Remember: Pesticides are Poisons.

Pesticides are poisons. Use them cautiously!

- a. DON'T store pesticides where children or pets can get into them.
- b. DON'T place baits where children or pets can get into them.
- c. DON'T use pesticide strips in kitchen or dining areas.
- d. DON'T allow pesticides to contact food, cooking utensils, or dishes.
- e. DON'T allow pesticides to contact your skin when you apply them.
- f. DON'T breathe pesticide vapor for more than a few minutes.
- g. DON'T use pesticides as a substitute for good housekeeping.

Chapter 12 MISCELLANEOUS ITEMS

12-1. Fences.

Quarters occupants are permitted to construct and maintain fences for the purpose of inclosing an area in the back yard of their quarters to control pets or children. Request to install fences must be approved by the Facilities Engineer.

12-2. Pet Houses.

Quarters occupants are permitted to maintain pet houses at their own expense, on the rear lawn of their quarters. Request for permit must be submitted to the proper authority for approval.

12-3. Pet Annoyance.

Pets, such as dogs and cats, should be carefully controlled so that they do not annoy neighbors. Keep in mind that neighbors do not like to complain about such annoyances if it involves a close neighbor or friend.

12-4. Splash Blocks.

Maintain splash blocks in the proper position under downspouts to deflect rainwater away from the buildings and prevent erosion of the ground.

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