

MIL-L-28576A(YD)
17 September 1980
SUPERSEDING
MIL-L-28576(YD)
28 November 1969

MILITARY SPECIFICATION

LOCKER, BOX, PERSONAL EQUIPMENT,
OPEN FRONT, STEEL

This specification is approved for use by the Naval Facilities Engineering Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers one type and size of open front steel locker.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect or date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

QQ-A-200 - Aluminum Alloy, Bar, Rod, Shapes, Tube and Wire Extruded, and Structural Shapes, General Specification for.

QQ-S-698 - Steel, Sheet and Strip, Low-Carbon.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Naval Facilities Engineering Command, Code 0432, 200 Stovall Street, Alexandria, VA 22332, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 7125

MIL-L-28576A(YD)

TT-C-490 - Cleaning Methods and Pretreatment of Ferrous Surfaces for Organic Coatings.

TT-E-489 - Enamel, Alkyd, Gloss (for Exterior and Interior Surfaces).

STANDARDS

FEDERAL

FED STD No. 595 - Colors.

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.

MIL-STD-129 - Marking for Shipment and Storage.

MIL-STD-130 - Identification Marking for U. S. Military Property.

(Copies of documents required by contractors in connection with specific acquisition functions should be obtained from the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 P Street, N.W., Washington, DC 20036.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Tariff Publishing Officer, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

MIL-L-28576A(YD)

Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.

3. REQUIREMENTS

3.1 Description. Each locker shall consist essentially of an open base and two cabinet sections designed to stack on the base and one on top of the other as shown on Figure 1 (see 6.2). Each cabinet shall consist of five fixed shelves, and two drawers with the capability of being padlocked, and a towel bar when specified. The towel bar hanging rods shall be aluminum and the remaining components shall be steel. Assembly shall be by bolting and welding.

3.2 First article. Unless otherwise specified (see 6.2), furnish a locker for first article inspection and approval (see 4.3.1 and 6.3). The locker shall consist of one base and two cabinet sections. The first article inspection shall be performed at the manufacturer's plant or at the installation site, as specified (see 6.2). Produce the first article sample prior to initiation of production items.

3.3 Interchangeability. Manufacture all parts to standards that will permit replacement or adjustment without modification of parts.

3.4 Materials. Materials used shall be free from defects which would adversely affect the performance or maintainability of individual components or of the overall assembly. Materials not specified herein shall be of the same quality used for the intended purpose in commercial practice. Unless otherwise specified herein, all equipment, material, and articles incorporated in the work covered by this specification are to be new and fabricated using materials produced from recovered materials to the maximum extent possible without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products are allowed under this specification unless otherwise specified.

3.4.1 Steel. Cold-rolled, commercial quality as specified in QQ-S-698 and with a stretcher-leveled standard of flatness for sheets of 16 gage and lighter.

3.4.2 Aluminum. Aluminum shall conform to the requirements of QQ-A-200.

MIL-L-28576A(YD)

3.4.3 Floor glide. Adjustable, of the rubber-cushion type having a minimum 1-1/8 inch diameter dome or floor bearing surface of nylon, corrosion-resistant steel, or nickel or cadmium plated case-hardened steel. The threaded stem shall have a 1/4-inch diameter and length of not less than 1-inch.

3.5 Construction. Construct the locker of steel sheets and strips, as specified in 3.4.1 and shown in Figures 2 through 14. Join structural components, except shelves, by welding. Secure shelves with mechanical fasteners. The two drawers of each cabinet section shall be capable of being secured in the closed position by padlocked tongues. The tongues shall extend from the bottom of the upper drawer front, shelf front edge, and top of the lower drawer front as shown on Figure 16. Fabricate cabinet sections and bases of steel with dimensional and gage requirements as shown on Figures 5 through 13. All overall dimensions of finished parts shall be minimum. Dimensions for bend lines shall be in accordance with commercial tolerances. Sizes and gages of material shall be minimum unless otherwise specified. Make each cabinet section identical and capable of being stacked on the based and on each other.

3.5.1 Cabinet sections. Assemble the cabinet sections by spot welding the components in accordance with the step-by-step procedures shown on Figures 3 and 4. Each leg of the uprights shall be secured with a minimum of five spot welds. Weld the mitered joint between the sides and top at the front and the joint between the top and center divider. Grind the welds flush with the adjoining surfaces. When towel bars are specified (see 3.5.6 and 6.2), drill the rear uprights and back for fastening the towel bar hangers, as shown on Figure 17. Assemble towel bar hangers, but do not attach to the cabinet back to prevent damage and reduce shipment cubage.

3.5.2 Shelves. As shown on Figures 10 and 11, slot the side flanges of the shelf to match the corresponding drilled holes in the cabinet sides and center divider. On the shelf located between the drawers, square the front edge in lieu of a curl as shown on Figure 10 (see 3.5.4). Spot weld drawer guides at locations shown on Figures 3, 4, and 5 on shelves on which drawers will be placed. Fasten each shelf with four bolts and four nuts, two on each side. The diameter of the bolts shall not be less than 1/32 inch smaller than the slot width.

3.5.3 Drawers. Provide each cabinet section with two drawers, one large and one small, as shown on Figure 1. Slot the front of both drawers for attachment of drawer tongues (see 3.5.4). Assemble the

MIL-L-28576A(YD)

drawers as shown on Figure 14. Bend the 1/2-inch flange at the top of the drawer back 45° toward the front to serve as a drawer stop to prevent accident removal of the drawer, but allows removal when required. Provide each drawer with two full length 1/32-inch thick by 1-inch wide laminated plastic strips and the length of the full depth of the drawers. Bond the plastic strips to act as drawer slides. Bond each plastic strip to each side of the drawer bottom at the location shown on Figure 14. Plastic strips shall prevent metal-to-metal contact between drawers and shelves.

3.5.4 Padlock and drawer tongue assembly. Make the tongues of 10-gage steel. Provide each cabinet section with two drawer tongues and one padlock tongue as shown on Figure 15. The drawer tongues shall be bent as shown on Figures 15 and 16 for use as drawer pulls. Make the front edge of the shelf between the drawers rectangular in lieu of being curled with exposed edge being 3/4-inch high. The clearance between the bottom of the shelves and top of the drawers shall be 1/8 inch maximum. Slot the drawer fronts as shown on Figures 12, 13 and 16. Each padlock tongue shall be attached with a minimum of 3 spot welds and further secured with fillet welds along the entire back edge as shown on Figure 16. When the drawers are fully closed, the three padlock holes shall be in vertical alinement for installation of a padlock.

3.5.5 Base. Make each base of two equal size halves as shown on Figure 9. Provide a steel channel as shown on Figure 9 for connecting the base halves. Locate the channel reinforcement equally on each side of the joint at the inside of the two halves and secure by spot welding. The exposed joint between the base halves shall be smooth and without gaps. The clipped top flange at each corner provides openings for insertion of the bottom of the cabinet uprights. Spot weld a gusset, as shown on Figure 9, to each horizontal flange of each leg. Clip the flanges as necessary to accept the floor glide stems. Bore and thread the gusset made of 10 gage steel to accept the stem of the floor glide as shown on Figure 9. As an alternate, the gusset may be 14 gage steel and a weld-nut used in lieu of threading the gusset. Provide each leg with an adjustable floor glide is specified in 3.4.3.

3.5.6 Towel bar. When specified (see 6.2), provide one towel bar for each cabinet section. Fabricate the towel bar as shown on Figure 17.

3.6 Treatment and finish.

MIL-L-28576A(YD)

3.6.1 Treatment. Treat exterior and interior surfaces in accordance with type I or II of TT-C-490, except phosphate coating may be applied in three stages and a nonchromated final acidic rise may be used.

3.6.2 Finish coat. Finish all treated surfaces with a coat of enamel conforming to class B of TT-E-489 to a total dry film thickness of not less than 1.0 mil. Bake the enamel in accordance with the time and temperature cycle recommended by the enamel manufacturer. The color shall be gray gloss No. 16251 of FED STD No. 595, unless otherwise specified (see 6.2).

3.6.3 Painted finishes. Painted finishes shall be smooth, without dirt, dust, or other foreign matter embedded. The finishes shall not be discolored, rippled, peeled, or have sags or runs. Small scratches or areas of marred finish shall be touched-up as necessary to match the surrounding finish. Large areas of finish scratched or marred affecting the appearance of the locker finish shall be replaced or the entire component refinished.

3.7 Identification marking. Mark each cabinet section for identification in accordance with MIL-STD-130. Place the marking on exterior of the top or interior of the back. The nomenclature of the item: LOCKER, BOX, PERSONAL EQUIPMENT.

3.8 Workmanship.

3.8.1 Steel fabrication. The locker shall be stable, without torque, deflection, warp or twist. Bends, forming corners, shall be square and true, free from kinks, uniform in size and shape. Exposed edges shall be straight and smooth, without protrusions. There shall be no sharp edges or corners exposed in the finished work which could be judged potentially harmful to wearing apparel or to the user.

3.8.2 Welding. Exposed welds, as viewed from the exterior of the item, shall be extended to the full width of the joining edges and shall be ground smooth and flush, matching the adjacent surfaces. Unexposed welds do not require finish grinding, but shall have good uniform appearance. Parts shall be properly prepared to insure soundness and maximum strength, aligned in correct position by jigs or fixtures. Jigs shall be designed to permit expansion and contraction of the metal during the welding process to minimized buckling and distortion. All welds shall be thoroughly fused and sound and

MIL-L-28576A(YD)

shall be free from cracks, fissures, pits, holes, gas pockets, porosity, and undercutting. Spot welds shall be of sufficiently large diameter and free from pits and flashes.

3.8.3 Mechanical fasteners. Holes for securing components by mechanical fasteners, such as screws and bolts shall be accurately punched or drilled and shall have the burrs removed.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Inspection of materials and components. In accordance with 4.1, the contractor is responsible for insuring that materials and components used were manufactured, examined, and tested to the extent specified, in accordance with requirements of referenced subsidiary specifications and standards, if any.

4.2 Inspection lot. All lockers offered to the Government at one time shall be considered a lot for purposes of inspection.

4.3 Classification of inspections. The inspection requirements specified herein are classified as follows:

- (1) First article inspection (see 4.3.1).
- (2) Quality conformance inspection (see 4.3.2).

4.3.1 First article inspection. First article inspection shall be performed on one locker when a first article sample is required (see 3.2 and 6.3). This inspection shall include assembly and the examination of 4.5 and 4.6.

4.3.2 Quality conformance inspection. Quality conformance inspection shall include the examination of 4.5 and 4.6.

MIL-L-28576A(YD)

4.4 Sampling for examination. A random sample of lockers shall be selected from each lot in accordance with MIL-STD-105 at inspection level II. In terms of defects per 100 units, the Acceptable Quality Levels shall be 2.5 for major defects and 4.0 for minor defects.

4.5 Examination. Each random sample shall be examined to verify compliance with this specification. Examination shall be conducted as specified in Table I.

TABLE I. Classification of defects.

Categories	Defects and reference	Requirement
Critical	None defined.	
Major:		
101	Design not as specified.	3.1 and Figure 1
102	Overall dimension not as specified.	Figure 1
103	Parts not manufactured to interchangeable standards.	3.3
104	Steel not as specified.	3.4.1
105	Aluminum not as specified.	3.4.2
106	Floor glides not as specified.	3.4.3
107	Construction not as specified.	3.5
108	Dimensions and gages not as specified.	3.5
109	Cabinets not capable of being stacked on base and on each other.	3.5
110	Spot welds spacing not as specified.	3.5.1
111	Exposed welds not ground smooth.	3.5.1
112	Drawer back flange not formed to act as a drawer stop.	3.5.3
113	Laminated plastic drawer slides not provided.	3.5.3
114	Padlock and drawer tongue assembly not as specified.	3.5.4
115	With drawer closed, the three tongues not in alignment.	3.5.4
116	Gussets on base legs not as specified.	3.5.5
117	Towel bar for each cabinet section not provided, when specified.	3.5.6

MIL-L-28576A(YD)

TABLE I. Classification of defects - Continued.

Categories	Defects and reference	Requirement
118	Steel surfaces not treated prior to applying the finish coat (in process).	3.6.1
119	The total dry film thickness not as specified.	3.6.2
120	Indications of rust or scale under the finish coat.	3.6.3
121	Finish coat discolored, peeled, has sags, or ripples.	3.6.3
122	Fabrication not as specified.	3.8.1
123	Any component malformed or damaged affecting use.	3.8.1
124	Any sharp edges or protrusions that may cause injury or tear clothing.	3.8.1
125	Welding omitted or of type other than that specified.	3.8.2
126	Welds not finished when on exposed parts.	3.8.2
127	Welds not thoroughly fused with base metal.	3.8.2
128	Welds not free of cracks, fissures, pits, holes or other defects.	3.8.2
129	Holes for mechanical fasteners contain burrs which may cause injury.	3.8.3
Minor:		
201	Finish coat the wrong color.	3.6.2
202	Identification marking missing.	3.7
203	Nut, bolt, or screw missing damaged or not drawn up tight.	3.8

4.6 Packaging inspection. The preservation-packaging, packing, and marking of the lockers shall be inspected to determine conformance to the requirements of Section 5 of this specification.

MIL-L-28576A(YD)

5. PACKAGING

5.1 Preservation-packaging. Unless otherwise specified by the contract, the preservation-packing requirements are as specified herein.

5.1.1 Level A. Not applicable.

5.1.2 Commercial. Preserve-package the lockers in accordance with the contractor's standard practice, including the following when towel bars are specified. The attaching hardware for the towel bars shall be placed in plastic bags, cloth bags, or paper envelopes and the bags or envelopes securely attached to the towel bars. The unattached towel bars shall either be placed within the locker bases or shall be shipped in bulk separately, at the option of the contractor. The towel bars shall be cushioned and secured to prevent movement and damage.

5.2 Packing. Unless otherwise specified by the contract, the packing requirements are as specified herein.

5.2.1 Levels A and B. Not applicable.

5.2.2 Comercial. Pack the lockers in a manner which will insure arrival at destination in satisfactory condition and which will be acceptable to the carrier at lowest rates. Containers, packing, and palletizing, when applicable, shall comply with Uniform Freight Classification rules or the National Motor Freight Classification rules.

5.3 Marking. Mark exterior shipping containers in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. The lockers are for use in Navy recruit barracks. Each cabinet section is for use by one recruit. Cabinets are usually stacked two-high; however, when bunk beds are double-decked, the cabinets may be stacked three-high.

6.2 Ordering data. Acquisition documents should specify the following:

- (a) Title, number, and date of this specification.

MIL-L-28576A(YD)

- (b) Number of bases and cabinet sections required (see 3.1 and 6.1).
- (c) When a first article is not required (see 3.2, 4.3.1, and 6.3).
- (d) When a first article is required, specify the number of days the contractor has to supply a first article for inspection and location of the inspection (see 3.2).
- (e) Specify when towel bars are required (see 3.5.6).
- (f) Color, if other than gray (see 3.6.2).

6.3 First article. When a first article is required, it shall be tested and approved under the appropriate provisions of the Defense Acquisition Regulation. The first article should be a preproduction sample, a first production item, or it may be a standard production item from the contractor's current inventory as specified in 4.2.1. The contracting officer should include specific instructions in all acquisition instruments regarding arrangement for examinations, tests, and approval of the first article.

6.4 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensive changes.

Custodian:

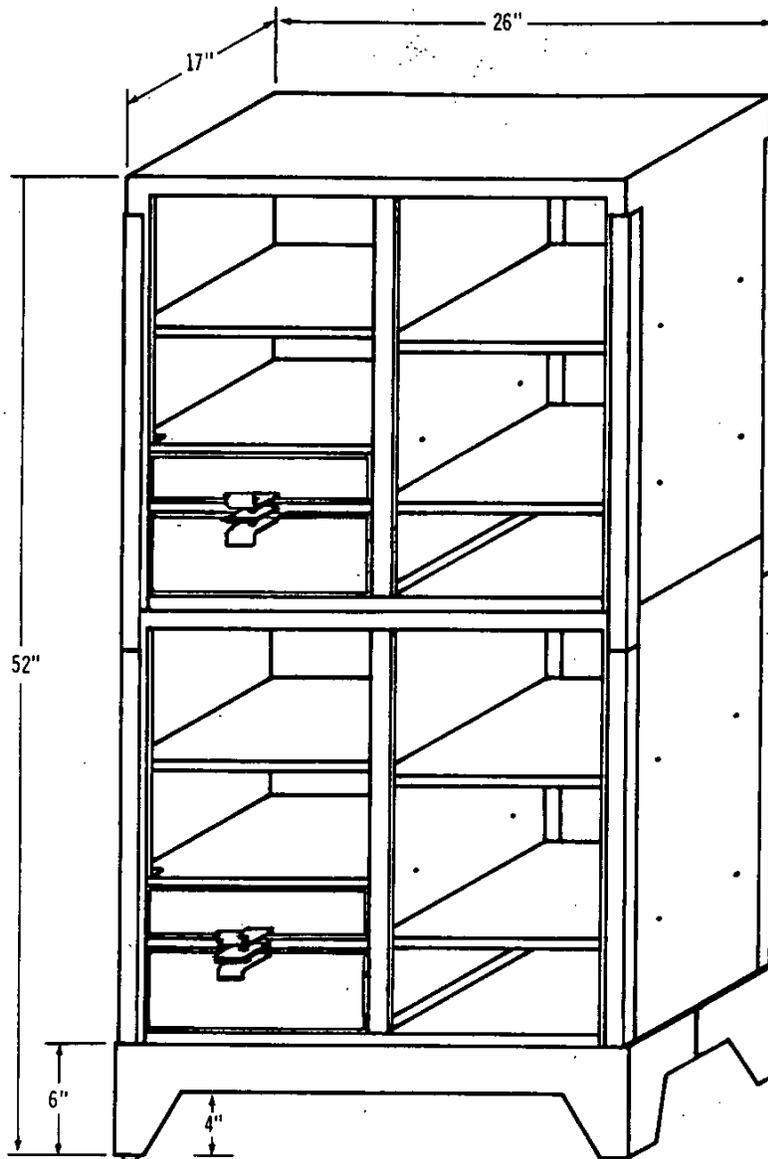
Navy - YD

Preparing activity:

Navy - YD

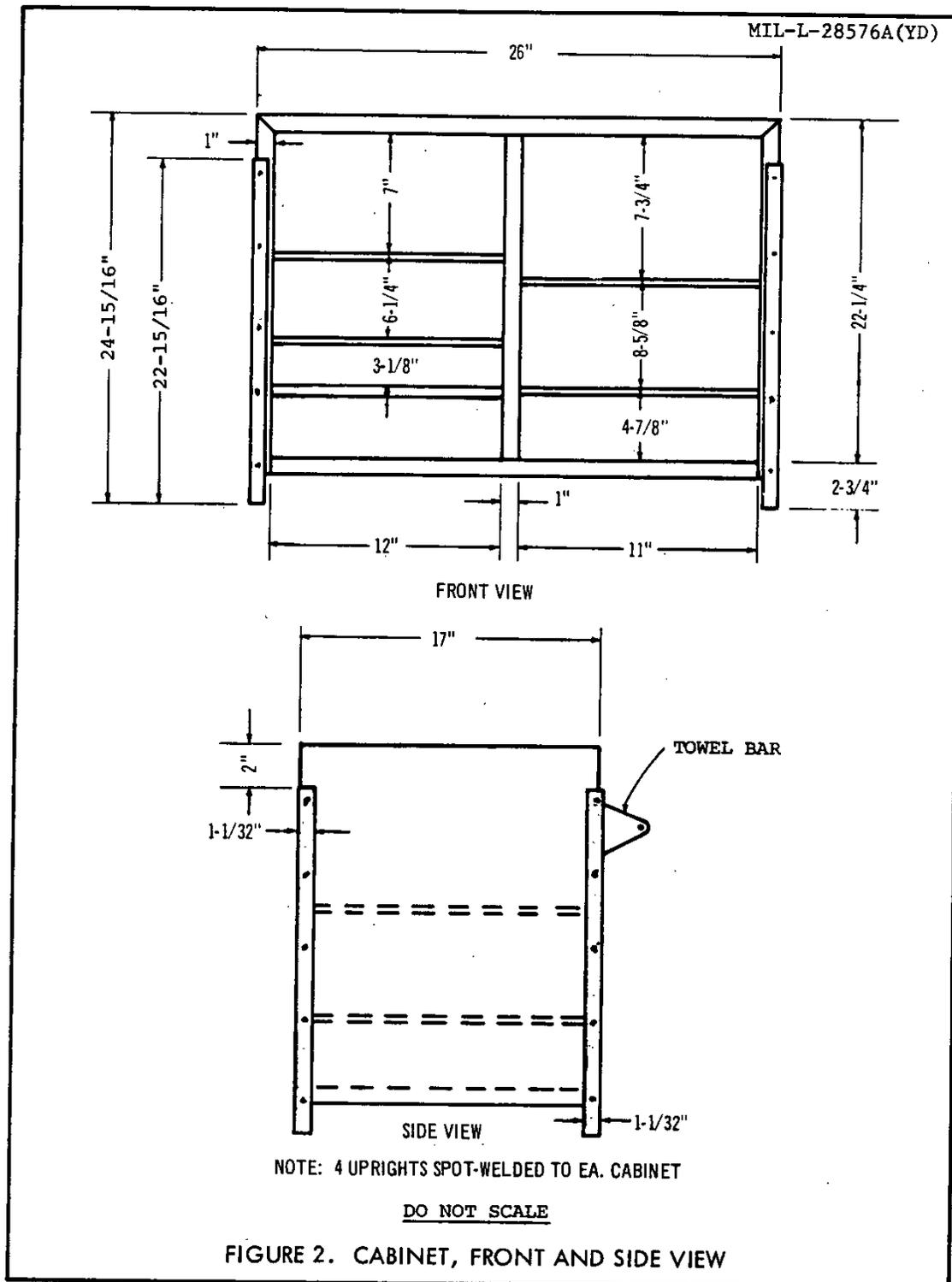
Project No. 7125-N105

MIL-L-28576A(YD)

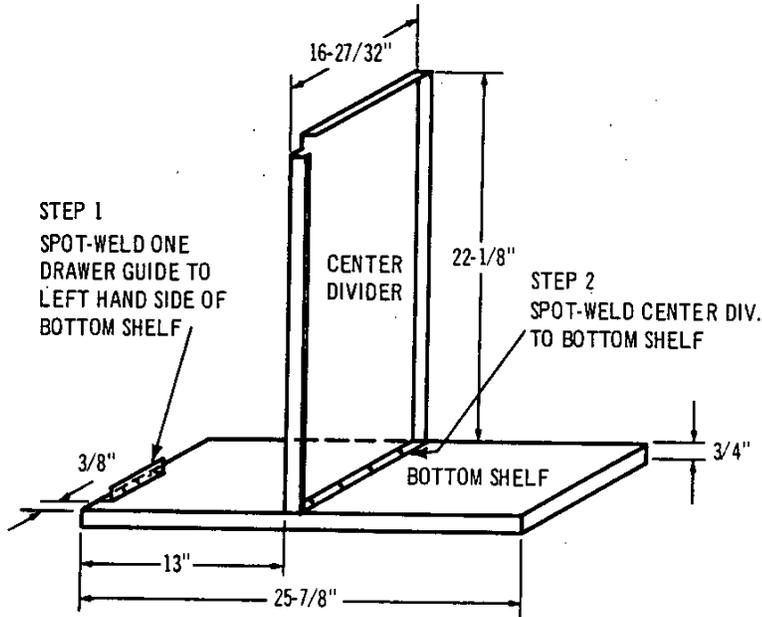


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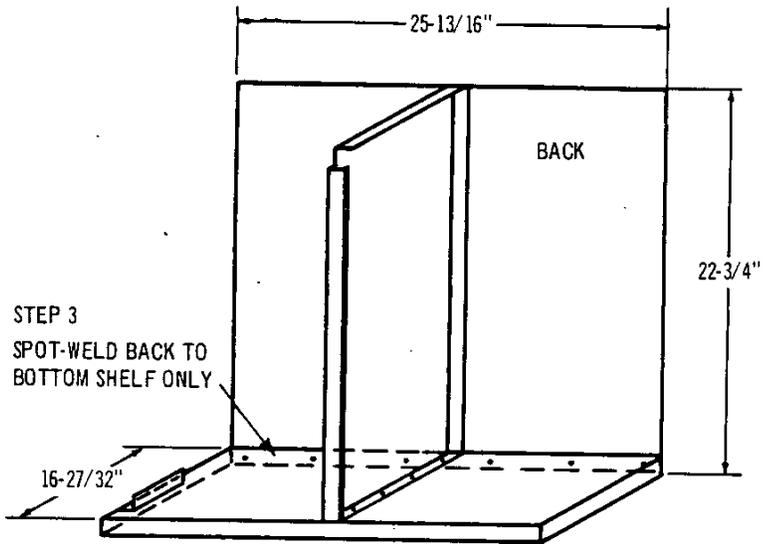
FIGURE 1. RECRUIT LOCKER WITH OPEN BASE



MIL-L-28576A(YD)



STEPS 1 & 2.

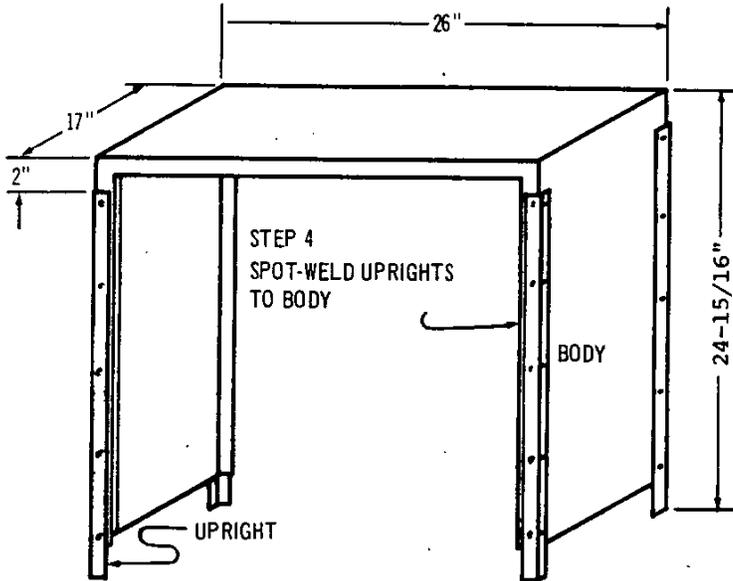


STEP 3

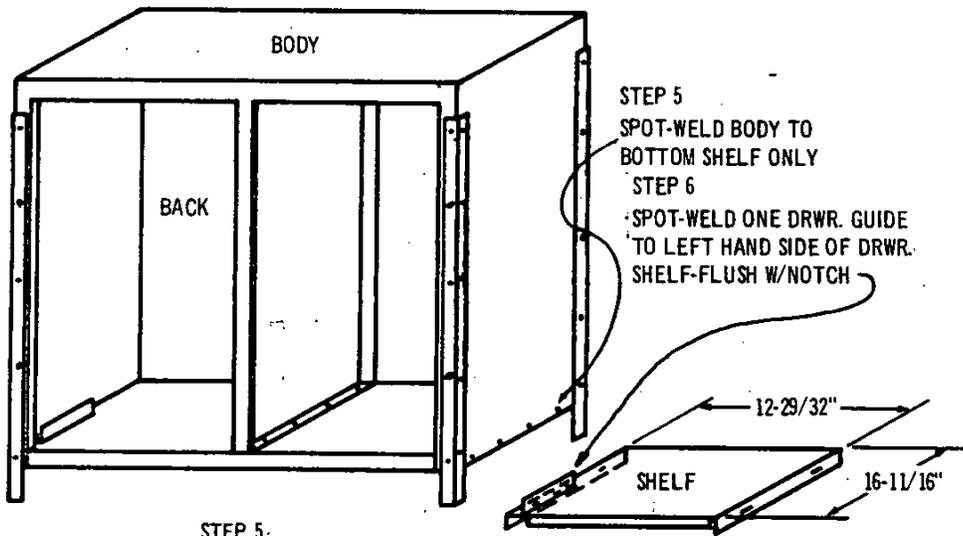
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FIGURE 3. CABINET ASSEMBLY

MIL-L-28576A(YD)



STEP 4



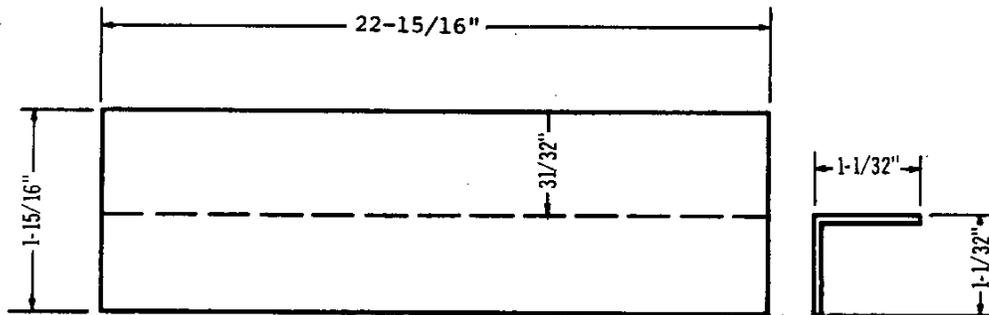
STEP 5

STEP 6

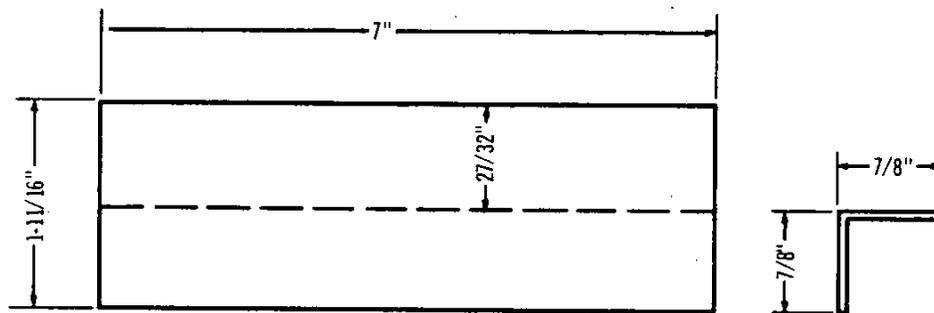
DO NOT SCALE

FIGURE 4. CABINET ASSEMBLY

MIL-L-28576A(YD)



UPRIGHT-18 GAGE STEEL

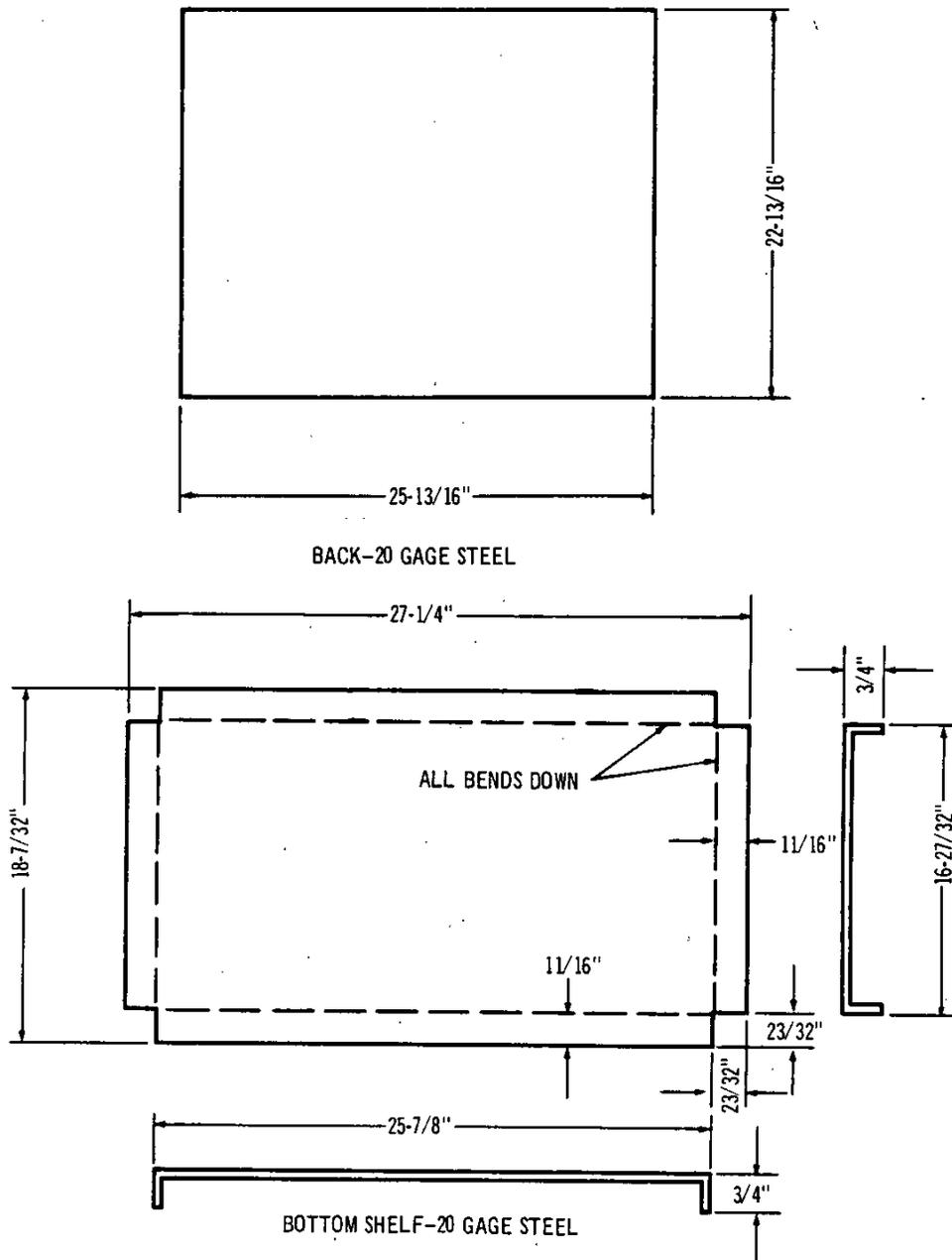


DRAWER SLIDE-20 GAGE STEEL

DO NOT SCALE

FIGURE 5. CABINET UPRIGHT AND DRAWER GLIDE

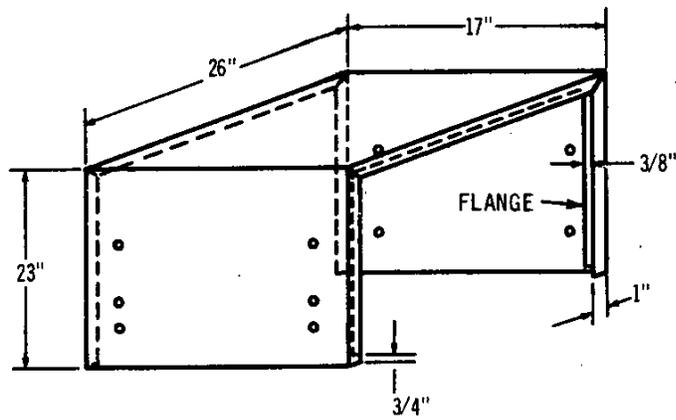
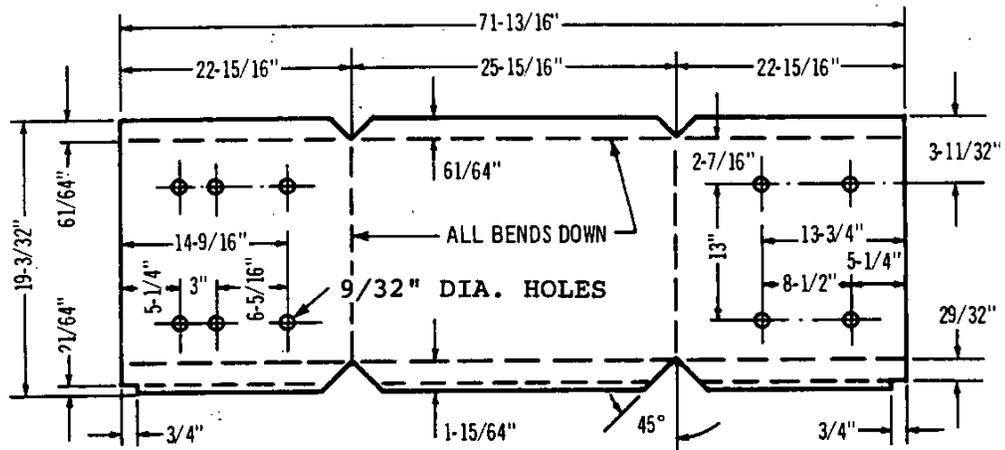
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FIGURE 7. CABINET BACK AND BOTTOM SHELF

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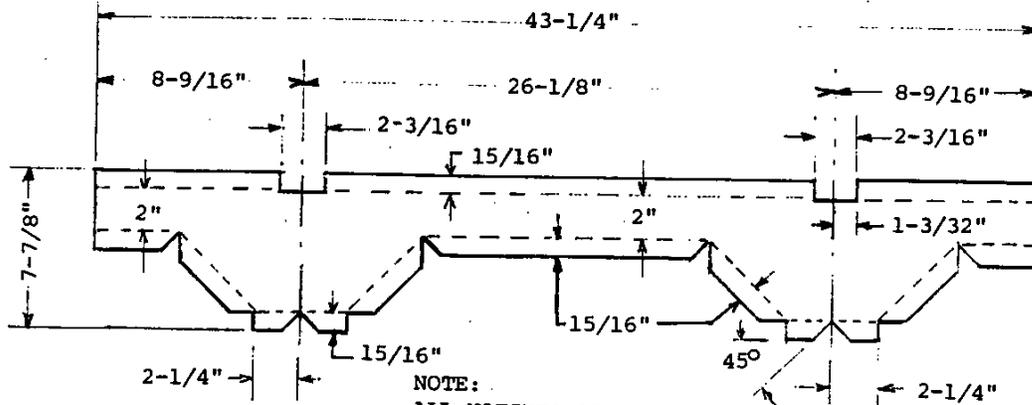


18 GAGE STEEL

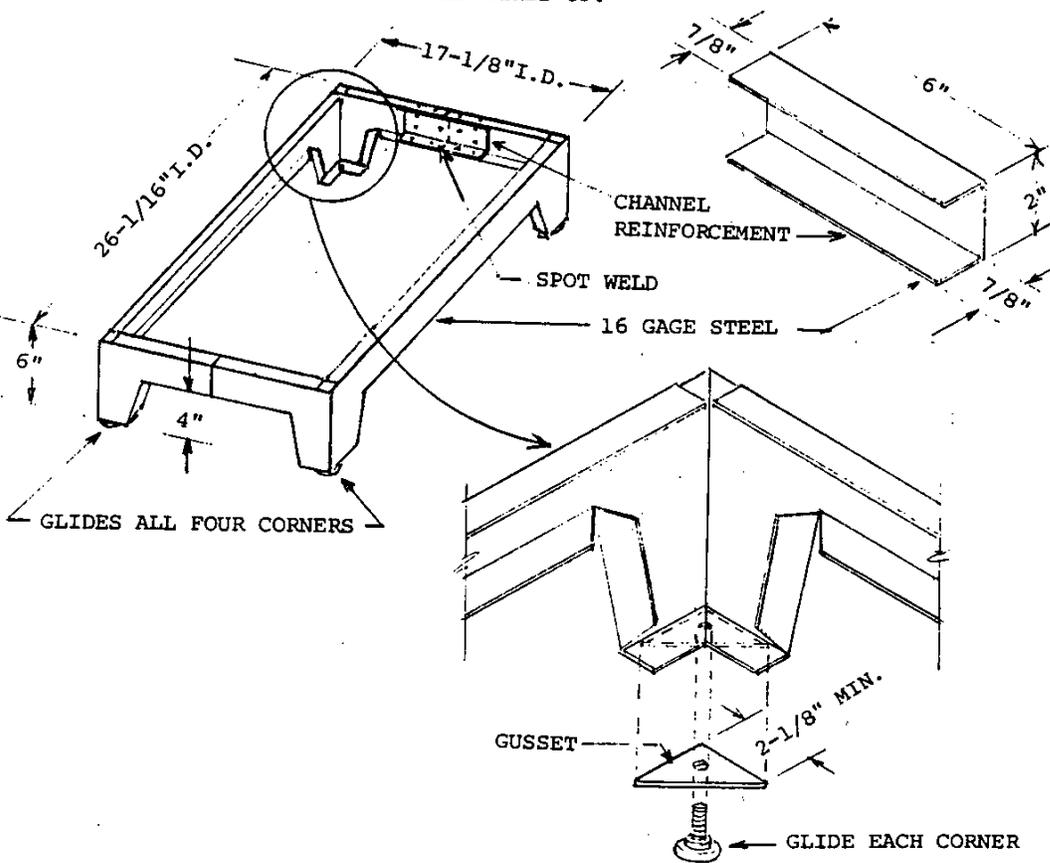
DO NOT SCALE

FIGURE 8. CABINET BODY

MIL-L-28576A(YD)



NOTE:
ALL NOTCHES 1" DEEP.
ALL BENDS UP.



GLIDES ALL FOUR CORNERS

CHANNEL REINFORCEMENT

SPOT WELD

16 GAGE STEEL

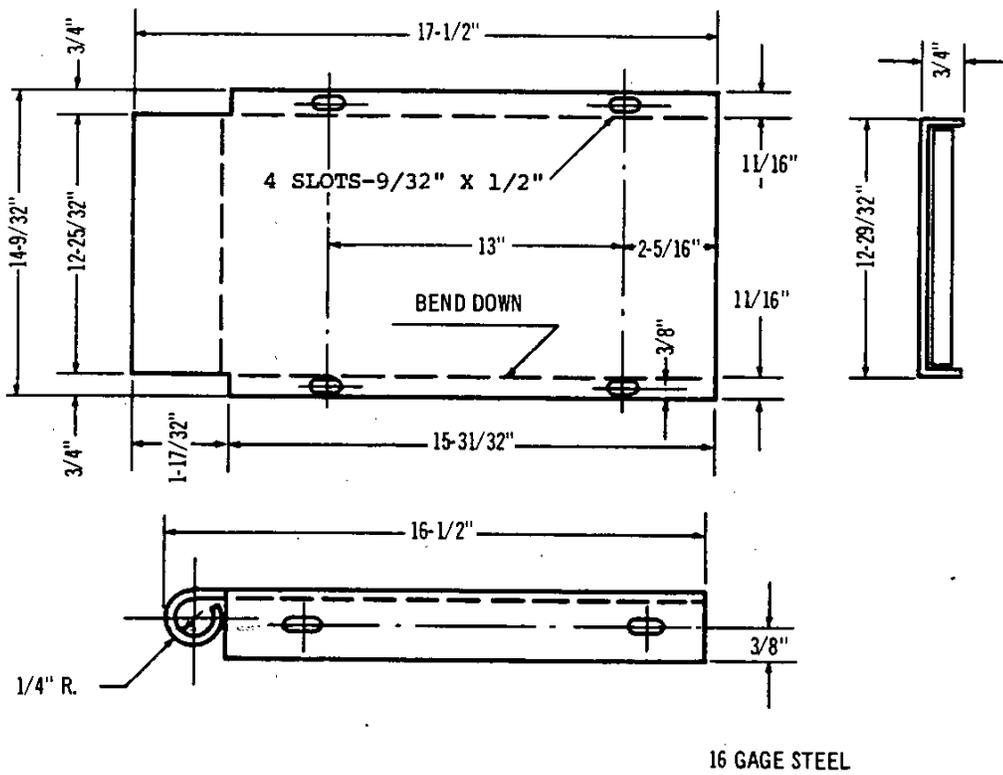
GUSSET

GLIDE EACH CORNER

DO NOT SCALE

FIGURE 9. RECRUIT LOCKER BASE

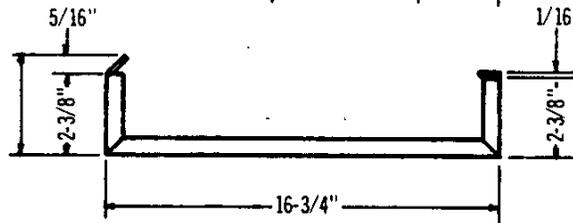
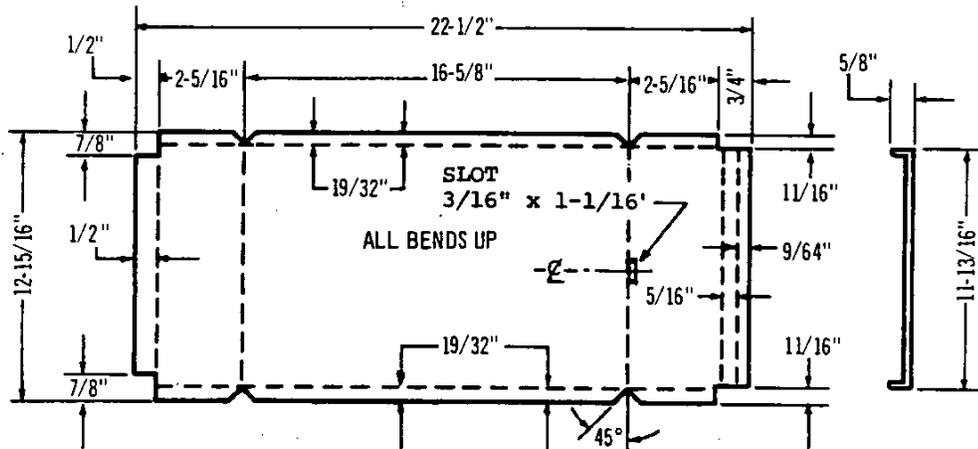
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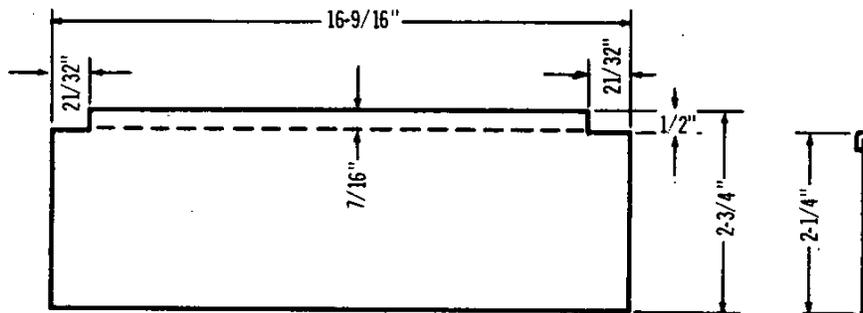
FIGURE 10. SHELF, PLAIN OR OPEN TYPE

MIL-L-28576A(YD)



DRAWER BODY

20 GAGE STEEL

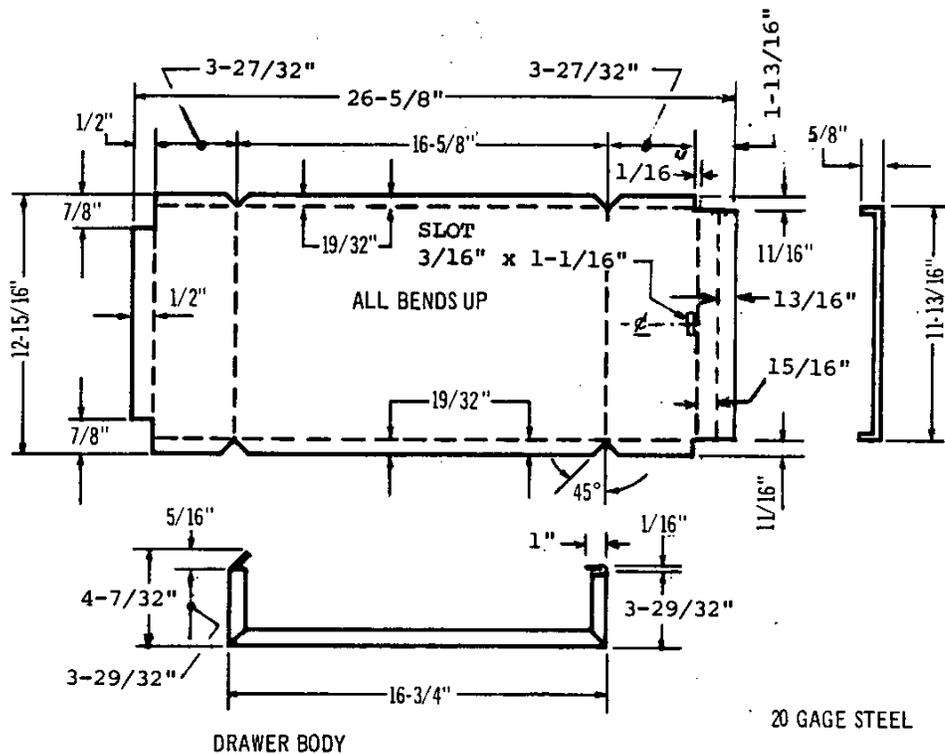


DRAWER SIDE

DO NOT SCALE

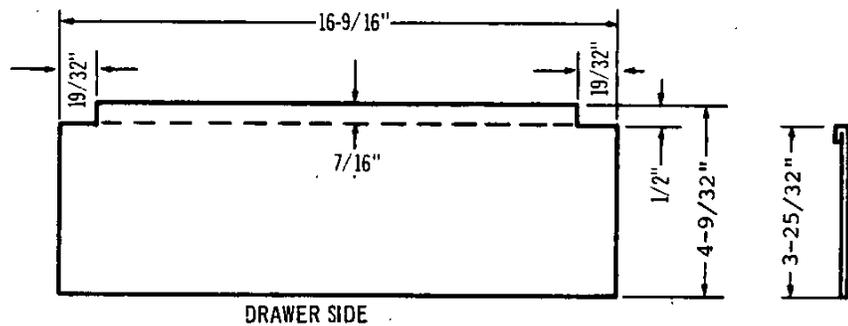
FIGURE 12. DRAWER, SMALL

MIL-L-28576A(YD)



DRAWER BODY

20 GAGE STEEL

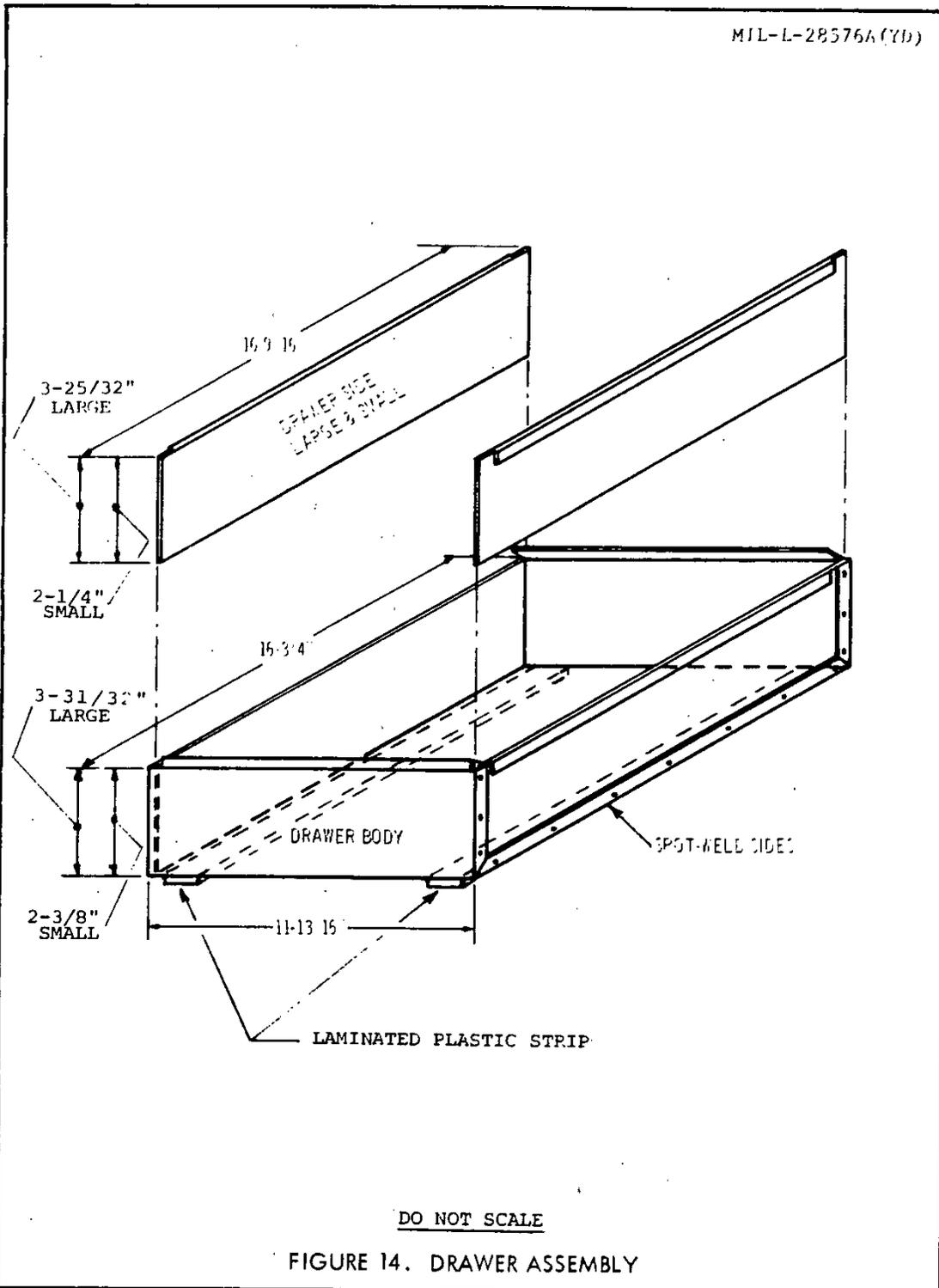


DRAWER SIDE

DO NOT SCALE

FIGURE 13. DRAWER, LARGE

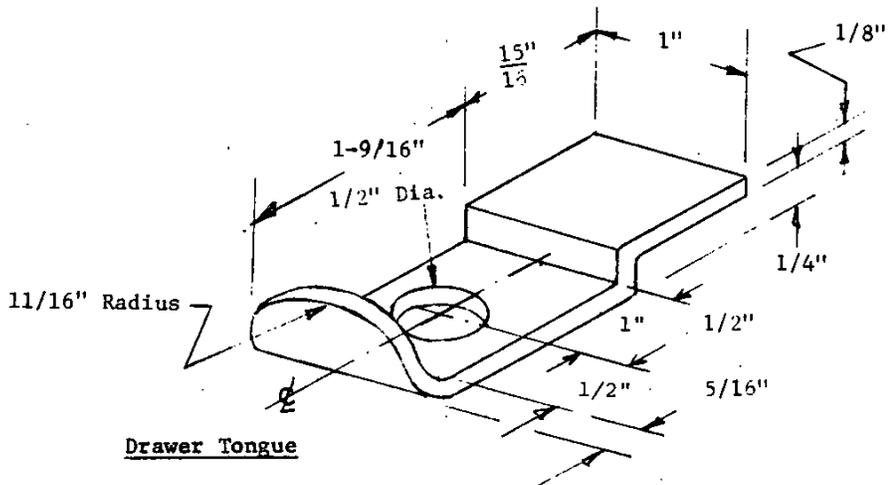
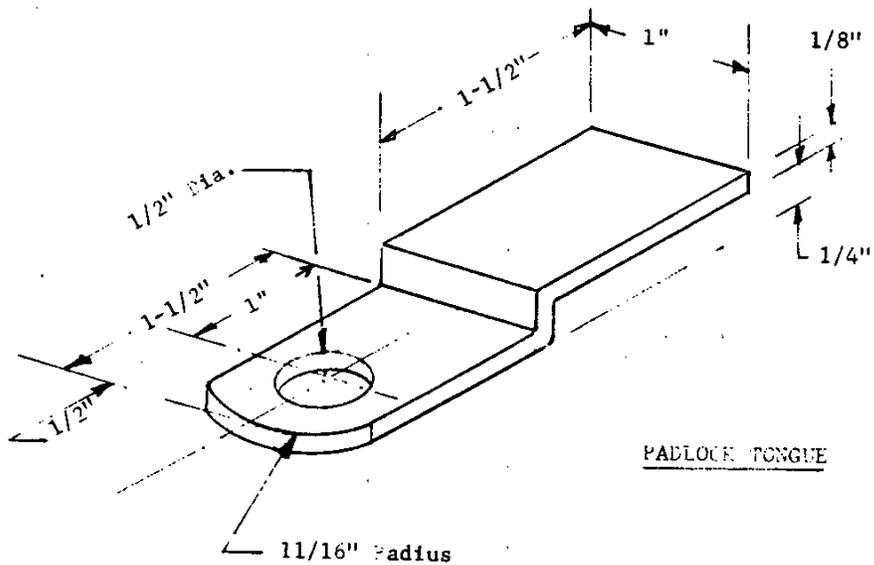
MIL-L-28576A (YD)



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FIGURE 14. DRAWER ASSEMBLY

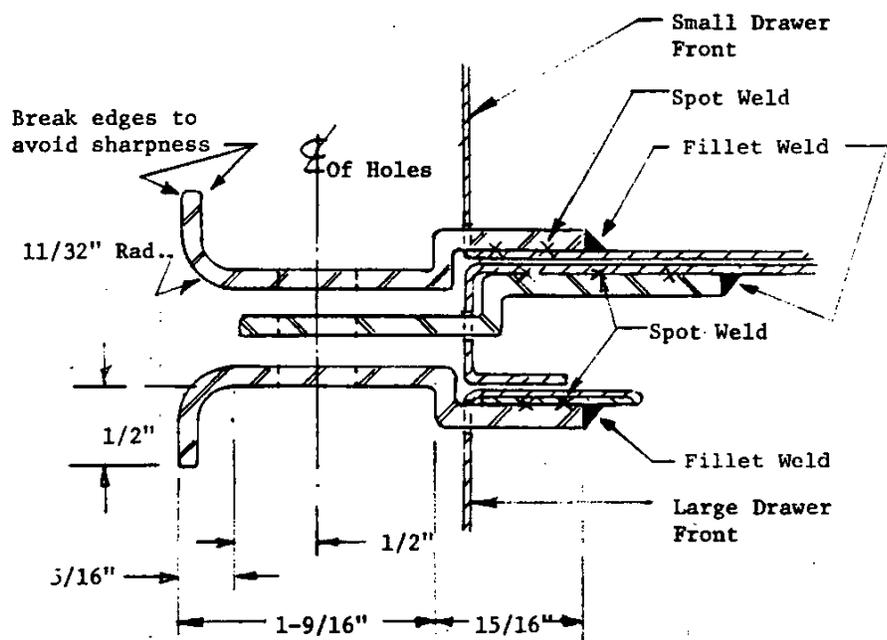
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FIGURE 15. PADLOCK AND DRAWER TONGUE DETAILS

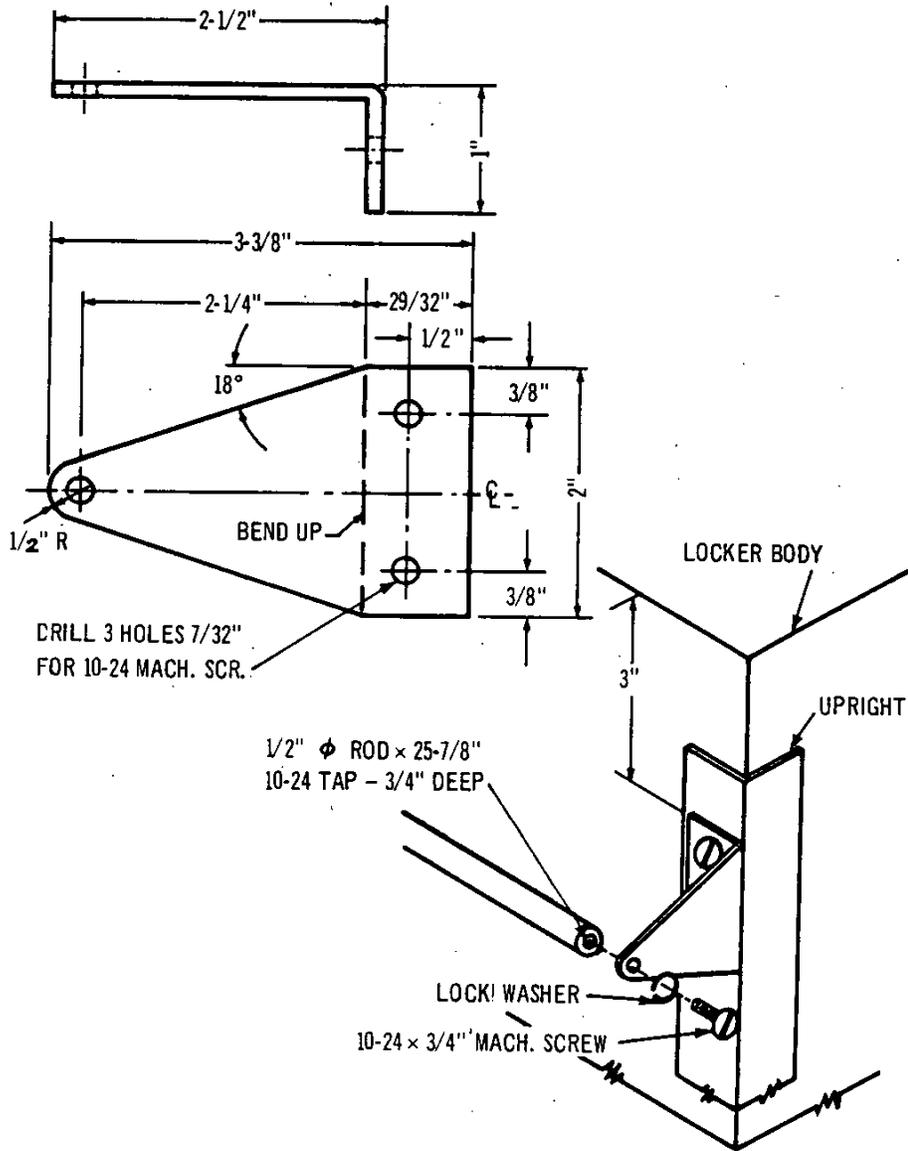
MIL-L-28576A(YD)



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FIGURE 16. PADLOCK AND DRAWER TONGUE ASSEMBLY

MIL-L-28576A(YD)



DO NOT SCALE

FIGURE 17. TOWEL BAR

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER		2. DOCUMENT TITLE	
3a. NAME OF SUBMITTING ORGANIZATION		4. TYPE OF ORGANIZATION <i>(Mark one)</i>	
b. ADDRESS <i>(Street, City, State, ZIP Code)</i>		<input type="checkbox"/> VENDOR	
		<input type="checkbox"/> USER	
		<input type="checkbox"/> MANUFACTURER	
		<input type="checkbox"/> OTHER <i>(Specify):</i> _____	
5. PROBLEM AREAS			
a. Paragraph Number and Wording:			
b. Recommended Wording:			
c. Reason/Rationale for Recommendation:			
6. REMARKS			
7a. NAME OF SUBMITTER <i>(Last, First, MI)</i> – Optional		b. WORK TELEPHONE NUMBER <i>(Include Area Code)</i> – Optional	
c. MAILING ADDRESS <i>(Street, City, State, ZIP Code)</i> – Optional		8. DATE OF SUBMISSION <i>(YYMMDD)</i>	

(TO DETACH THIS FORM, CUT ALONG THIS LINE.)