

PPP-B-655

JULY 27, 1959

SUPERSEDING

Fed. Spec. PPP-C-570 (In Part)

October 10, 1956

FEDERAL SPECIFICATION

BOXES, FIBERBOARD, SIX OR EIGHT SIDES

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope.—This specification covers seven styles of corrugated fiberboard boxes with six or eight sides, for use in domestic shipment of supplies. The appendix contains requirements for set up and closure of the packed containers.

1.2 Classification.

1.2.1 Types.—Boxes covered by this specification shall be of the following types as specified (see 3.2 and 6.2):

- Type I.—Hexagonal (six sides)
Type II.—Octagonal (eight sides)

1.2.2 Styles.—The types of boxes covered by this specification shall be one of the following styles and the desired style shall be specified as required (see 6.2):

- Style A.—Turned-up flaps stapled
Style B.—Segmented closure glued
Style C.—Overlapping flaps glued
Style D.—Flap and slot strapped (see 6.8)
Style E.—Double locked flaps strapped
Style F.—Segmented closure glued and strapped
Style G.—Self-locking bottom and stapled top

1.2.3 Options.—Unless a specific type and style of box is specified in the procurement documents, the type and style shall be at the option of the contractor.

2. APPLICABLE SPECIFICATIONS, STANDARDS, AND OTHER PUBLICATIONS

2.1 Specifications and standards.—The following specifications and standards of the issues in effect on date of invitation for bids, form a part of this specification:

Federal Specifications:

- PPP-B-591—Boxes, Fiberboard, Wood-Cleated.
PPP-B-636—Boxes, Fiber.

Federal Standards:

- Fed. Std. 102—Preservation, Packaging and Packing Levels.
Fed. Std. 123—Marking for Domestic Shipment (Civilian agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications, Standards, and Handbooks and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge at the General Services Administration Regional Offices in Boston, New York, Atlanta, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, Los Angeles, Seattle, and Washington, D. C.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications, Standards,

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and Handbooks from established distribution points in their agencies.)

Military Standards:

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

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

(Copies of the Military Specifications and Standards required by contractors in connection with specific procurement functions should be obtained from the procuring agency or as directed by the contracting officer.)

2.2 Other publications. — The following publication, of the issue in effect on date of invitation for bids, forms a part of this specification.

Uniform Freight Classification Rule 41.

(Application for copies should be addressed to the Uniform Freight Classification Committee, 202 Chicago Union Station, Chicago 6, Illinois.)

3. REQUIREMENTS

3.1 Fiberboard.—Fiberboard shall be double-faced corrugated board. The corrugated sheet shall be glued between the two flat facing sheets. Facing sheets shall be of the same nominal thickness (caliper) and basis weight.

3.1.1 Corrugated media.—The corrugated media shall have a thickness of not less than 0.009 inch and shall weigh not less than 26 pounds per 1,000 square feet. Corrugated sheets shall be A-flute, having 36 flutes per foot; B-flute, having 50 flutes per foot; or C-flute, having 42 flutes per foot, all plus or minus 3 flutes, at the option of the contractor.

3.1.2 Combined weight of facings and bursting strength.—The combined weight of facings and the bursting strength of the fiberboard shall conform to the applicable requirements shown in table I for "weight of box and contents" or "inside dimensions of box (one-half perimeter plus depth)" whichever requires the heavier board.

TABLE I.—Requirements for corrugated fiberboard

| Weight of box and contents | Inside dimension of box (one-half perimeter plus depth (maximum)) | Combined weight of facings (minimum) | Bursting strength of fiberboard (minimum) |
|----------------------------|---|--------------------------------------|---|
| Pounds | Inches | Lb. per 1,000 sq. ft. | Lb. per sq. in. |
| 20 | 40 | 52 | 125 |
| 40 | 60 | 75 | 175 |
| 65 | 75 | 84 | 200 |
| 90 | 90 | 138 | 275 |
| 120 | 100 | 180 | 350 |

3.2 Dimensions.—Boxes shall be furnished having the dimensions specified (see 6.2). For the purpose of this specification, dimensions of a box shall be given in the following sequence: Number of sides, perimeter, and depth (i.e., 8 sides, 48" by 30"). The perimeter shall be the distance around the open face of the box. The dimensions shall be inside measurements. A tolerance of plus or minus $\frac{1}{8}$ inch will be permitted in the dimensions of boxes.

3.3 Construction.

3.3.1 Body joints (manufacturer's joint).—At the body joint, one edge of the fiberboard shall overlap the adjacent edge not less than $1\frac{1}{2}$ inches and shall be secured with steel staples or steel stitching wire at the option of the contractor. Metal fastenings shall be spaced not more than 3 inches apart. The distance between the end of the joint and the nearest metal fastening shall not exceed 1 inch. Metal fasteners shall completely pass through all pieces to be fastened and shall be well clinched and shall not show cracks or other indications of weakness.

3.3.2 Direction of flutes.—Unless otherwise specified, the direction of the flutes in the body of the box shall be parallel to the depth of the box.

3.3.3 Styles.—Type I and Type II boxes shall be constructed in the following styles. (See 1.2.2 and figures 1 through 7).

3.3.3.1 Style A, turned-up flaps stapled (see figure 1).—This box shall be in substantial accordance with figure 1. The body shall be in one piece, scored as shown, with the body joint along one of the edges parallel to the scores. The top and bottom shall each be in one piece, cut and scored as shown. The width of the turned-up flaps shall be 1½ inches minimum.

3.3.3.2 Style B, segmented closure glued (see figure 2).—This box shall be in substantial accordance with figure 2. The body shall be in one piece, cut and scored as shown, with the body joint along one of the edges parallel to the scores. All flaps shall be of equal size and shall meet when closed. The top and bottom shall each be in one piece, cut as shown.

3.3.3.3 Style C, overlapping flaps glued (see figure 3).—This box shall be in substantial accordance with figure 3. The body shall be in one piece scored and slotted as shown and shall have flaps for closing top and bottom. All flaps shall be of equal size. The first two opposite flaps which are closed shall meet when closed. The body joint shall be along one of the edges parallel to the score. Two inserts shall be provided as shown, one for insertion in the bottom and one in top to facilitate closure.

3.3.3.4 Style D, flap and slot strapped (see fig. 4, 4A, 4B and 4C.)—This box shall be in substantial accordance with figure 4. The body shall be in one piece, cut and scored as shown, with the body joint along one of the edges parallel to the scores. The top and bottom shall each be in one piece, cut, slotted, and scored as shown. Alternate tops and bottoms may be used and shall be as shown in figures 4A, 4B and 4C. Two inserts shall be cut, scored and provided as shown, one for insertion in the top and one in the bottom to facilitate containing the load (see 6.8).

3.3.3.5 Style E, double-locked flaps strapped (see figure 5).—This box shall be in substantial accordance with figure 5. The body shall be in one piece, cut, scored and slotted as shown with the body joint along one of the edges parallel to the scores. The top and bottom shall each be in one piece, cut and scored as shown.

3.3.3.6 Style F, segmented closure glued and strapped (see figure 6).—This box shall be in substantial accordance with figure 6. The body shall be in one piece, cut, slotted and scored as shown with the body joint along one of the edges parallel to the scores. The top and bottom shall each be in one piece, cut and scored as shown.

3.3.3.7 Style G, self-locking bottom and stapled top (see figure 7).—This box shall be in substantial accordance with figure 7. The body shall be in one piece, cut and scored as shown with the body joint along one of the edges parallel to the scores. The top shall be in one piece, cut and scored as shown. The width of the turned-up flaps shall be 1½ inches minimum.

3.4 Uniform Freight Classification.—Each box shall comply with or exceed Rule 41 of the Uniform Freight Classification.

3.5 Boxmaker's certificate.—Each box shall be plainly marked with the boxmaker's certificate, including bursting strength, dimensions and weight limits, signifying compliance with the requirements of the Uniform Freight Classification. This does not relieve the contractor of his responsibility for meeting all the requirements of this specification.

3.6 When this specification is referenced as a requirement for the shipping of an item or items in a contract or specification, the appendix shall be considered a mandatory part of this specification.

3.7 Dimensions of blank.—All dimensions of the boxmaker's blank shall be accurately

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cut, scored, and slotted so that the assembled parts fit closely without undue binding.

3.8 Scoring.—Cutting of the surface of the paperboard along score lines is not permitted. Scoring shall be uniform and of such depth as to retain maximum board strength along score marks consistent with the proper forming of the box.

3.9 Workmanship.—Fiberboard boxes shall be well manufactured in accordance with high-grade commercial practice. The boxes shall be free from imperfections which may affect their utility. All dimensions of the box maker's blank shall be accurately cut, scored, and slotted so that the assembled box parts fit closely without undue binding. No flap shall project beyond an edge of the set-up box.

4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 General.—Inspection shall be conducted as hereinafter stated to insure compliance with the requirements of this specification. Contractors not having the facilities to successfully accomplish the required tests shall engage the services of a testing facility acceptable to the procuring agency. The contractor shall be responsible for performance of all inspection requirements of this specification, except as otherwise stated herein, and he shall maintain records of all inspection performed, which shall be made available to the Government upon request.

4.2 Inspection.—Boxes shall be inspected to determine compliance with all requirements of this specification. Each sample unit shall be visually and dimensionally examined to verify conformance to the requirements. Sample boxes shall be assembled to determine that the boxes and all components fit properly. Inspection is not restricted to the defects listed in 4.3.1 and 4.3.2. Nonconforming sample units shall be rejected and if the number of nonconforming sample units exceeds

the specified acceptance number the entire lot shall be rejected.

4.2.1 Inspection Lot.— Unless otherwise specified, a lot shall consist of boxes and components of the same type, style, and size, manufactured by the same process by one manufacturer.

4.3 Visual and dimensional examination.— Sampling shall be conducted in accordance with Military Standard MIL-STD-105 and appendix thereto.

| | AQL | |
|-----------------------------|------------------|---------------------|
| | Inspection level | (percent defective) |
| For visual examination | | |
| Defects listed in | | |
| 4.3.1 and 4.3.2 | II | 1.5 |
| Total | II | 4.0 |
| For dimensional examination | L2 | 4.0 |

4.3.1 Examination of the end item for sporadic type defects in appearance, construction and workmanship.— The sample unit for this examination shall be one complete box, including ends and inserts when required.

| Examine | Defect |
|---|---|
| Condition (all boxes, ends and inserts) | Tear, split, or puncture (affecting service-ability) Scuff extending through one ply or facing; unduly dirty, stained or scuffed; unduly ragged, uneven or crushed edge; any ply separation more than ½ inch for corrugated fiber (examine visually, measure if in doubt). |
| Scoring (all boxes, ends and inserts) | Outer component ply or or facing split completely through when folded. |

| Examine | Defect |
|---|---|
| Metal fastenings (staples or stitching wire) Condition | One or more required fastenings not completely within overlap area; does not pass completely through all pieces to be fastened; not well clinched; visibly cracked or rusted. |
| Spacing | More than 3 inches apart (center to center) More than 1 inch between end of joint and nearest metal fastening. |

4.3.2 Examination of the end item for overall type defects.—The sample unit for this examination shall be one complete box, including ends and inserts when required. In addition to examining the assembled box to determine compliance with the applicable requirements of section 3, it shall be examined for the following defects.

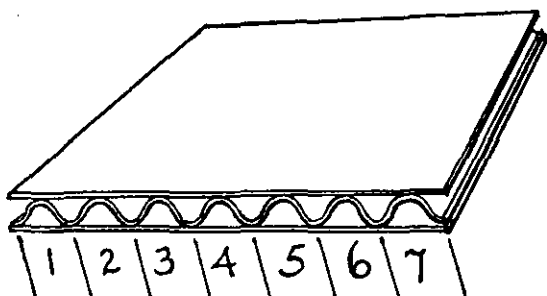
| Examine | Defect |
|---|---|
| Type of board (check edges where fluting, etc. are visible) | Not double-faced as specified. |
| Condition (all boxes, ends and inserts) | Not new. Notch, slot, lap, tongue, flap, or tuck (as applicable) missing, improperly cut (ragged edges) or not as required. |
| Scoring (all boxes, ends and inserts) | Poor scoring, making it excessively difficult to fold box, ends or inserts into required position. Does not set up properly because of improper scoring or slotting. |
| Body joints | Not lapped. Not secured by means of staples or stitching wire. |
| Style of box construction A, B, C, D, E, F and G | Not specified style. Body fabricated from more than one piece of fiberboard. |

| Examine | Defect |
|-----------------------------------|--|
| Ends and inserts | Joint not along one of the edges perpendicular to the open face. Not same grade of material as box for which it is intended; does not fit box for which it is intended. |
| Ends (Styles A, D, E, F and G) | Not properly scored to insure a proper fit. |
| Ends (Style B, C and F) | Top and bottom flaps overlap in center. |
| Ends (Style B and F) | Top and bottom flaps do not meet when closed, leaving a gap of ¼ inch or more. |
| Ends (Style D) | Slots in top and bottom pieces not cleanly cut out. |
| Inserts (Styles C and D) | Missing; does not fit inside box. |
| Flaps (Style G) | Bottom flaps not properly cut. |
| Mfger's certificate of compliance | Missing, illegible, incomplete or incorrect or improper size (check visually, measure if in doubt). |
| Dimensions: | Perimeter, depth or other dimensions varies by more than ⅛ inch from nominal requirements of contract or specification. <i>Note.</i> —All measurements shall be the inside measurements of the box unless otherwise specified. Measure the perimeter around the inside of the box, across the six or eight sides as applicable. Determine height by measuring from the middle of the score of the bottom end flap to the middle of the score of the top end flap subtracting ¼ inch score |

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| Examine | Defect |
|---------|---|
| | allowance from the dimensions obtained. Dimensions are indicated in this order: Perimeter by depth. |
| Fluting | |
| A flute | More than 39 flutes per foot. Less than 33 flutes per foot. |
| B flute | More than 53 flutes per foot. Less than 47 flutes per foot. |
| C flute | More than 45 flutes per foot. Less than 39 flutes per foot. |

Note.—Flutes shall be counted as follows:



4.4 Testing of the end item.—The end item shall be tested to determine whether the bursting strength of the sidewall, ends, and inserts meet the requirements of table I. The test procedure shall be in accordance with 4.5.2. The sample unit specimens shall be the amount required to perform all tests for one sample unit (minimum 6" x 10"). To the extent possible, sample unit specimens shall be taken from one box. When retest provisions of 4.5 require additional specimens to determine sample unit compliance, these specimens shall, if possible, be selected from the same box. If not possible, they shall be taken from boxes manufactured either immediately before or immediately after the box sampled. Ten sample units shall be tested from each lot. If more than one sample unit

fails to meet requirements, the lot will be rejected.

4.5 Tests.

4.5.1 Conditioning of board.—Tests shall be made after board has been conditioned for 5 hours in an atmosphere of 60 ± 12 percent relative humidity and $75^\circ \pm 5^\circ$ F. temperature. In case of dispute the board specimens for final referee tests shall be conditioned in an atmosphere maintained at 50 ± 2 percent relative humidity and $73^\circ \pm 3.5^\circ$ F. until moisture in the sample attains equilibrium with conditioning atmosphere as determined by accurately weighing samples at intervals of not less than 4 hours until the weight is constant.

4.5.2 Bursting strength test.

4.5.2.1 Apparatus (Mullen or Cady type).

—The bursting strength test consists essentially in clamping the fiberboard between two surfaces having concentric circular apertures of approximately 1 square inch area (1.24 inches diameter), and then applying hydraulic pressure through a rubber diaphragm secured to one of the circular apertures so as to burst a hole through the board exposed to the opening. The pressure required to burst the board is recorded by means of a pressure gage calibrated to read in pounds per square inch. Motor driven tester of jumbo type shall be used. The hydraulic system of the tester shall be filled with glycerin and maintained free from entrapped air when in use.

4.5.2.2 Method.—The bursting strength of fiberboard conditioned as specified in 4.5.1 shall be determined as follows: A specimen of the dry board shall be clamped firmly in the machine to prevent slipping. Pressure shall be applied by action of motor drive. If the board slips during a test, the results shall be disregarded. In testing corrugated board, double-pop tests shall be disregarded. Six bursts shall be made, three from each side of the board. If box dimensions do not

allow cutting of specimen sheet to 6 by 10 inches dimension, the specimen sheets shall be cut as large as practical and additional sheets used. The bursting strength for not less than five of the six bursts on each sample unit shall comply with the requirements in table I. If a sample unit fails to comply with the requirements, a substitute specimen from the same sample unit may be selected from which a specimen may be tested by making 24 bursts, 12 from each side of the board. The bursting strength for not less than 20 bursts shall comply with the requirement.

4.6 Inspection of preparation for delivery requirements.—The packing and marking of the boxes and components shall be subject to inspection by the inspector to determine compliance with the requirements of section 5 of this specification. The contractor shall provide the necessary facilities and supplies for inspection and tests made prior to final acceptance.

5. PREPARATION FOR DELIVERY

5.1 Packing.—Boxes and inserts, folded flat, shall be packed in accordance with level A, B, or C as specified (see 6.2 and 6.7).

5.1.1 Level A.—The boxes shall be knocked-down flat and the box bodies, inserts, inner lids, tops and bottoms comprising complete boxes shall be packed together in wood-created fiberboard boxes conforming to Federal Specification PPP-B-591, overseas type, in quantities not to exceed 200 pounds net weight or in quantities of 10 complete boxes in fiberboard boxes conforming to Federal Specification PPP-B-636, class 2, V3S, except that maximum size and weight limitations shall not apply. The boxes shall be closed and strapped in conformance with the appendix to the applicable specification.

5.1.2 Level B.—The boxes shall be knocked-down flat and the box bodies, inserts, inner lids, tops and bottoms comprising complete

boxes shall be packed together in wood-created fiberboard boxes conforming to Federal Specification PPP-B-591, style A or B, domestic type, in quantities not to exceed 200 pounds net weight or in quantities of ten complete boxes in corrugated fiberboard boxes conforming to Federal Specification PPP-B-636, class 1, except that maximum size and weight limitations shall not apply. The boxes shall be closed and strapped in conformance with the appendix to the applicable specification.

5.1.3 Level C.—Boxes shall be packed in a manner to insure carrier acceptance and safe delivery at destination. Containers shall be in accordance with Uniform Freight Classification Rules or regulations of other carriers applicable to the mode of transportation.

5.2 Marking.

5.2.1 Military agencies.—Shipments shall be marked in conformance with Military Standard MIL-STD-129.

5.2.2 Civil agencies.—In addition to any special markings required by the contract or order, shipments shall be marked in accordance with Federal Standard No. 123.

6. NOTES

6.1 Intended use.—The domestic, corrugated fiberboard boxes covered by this specification are intended as shipping containers for rope, hose, household goods and other similar items. They may be used for shipping articles that are not easily susceptible to damage that might be caused by ordinary distortion of the boxes brought about by external forces during shipment. Type 3 loads that are highly concentrated, which require a high degree of protection, or do not support the shipping container should not be packed in fiberboard boxes unless converted to type 1 or 2 loads by suitable interior packaging. Types 1, 2 and 3 loads are described in Federal Specification PPP-B-636, section 6.

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6.2 Ordering data.—Purchasers should exercise any desired options offered herein and procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Type of box, if a specific type is required (see 1.2).
- (c) Style of box, if a specific style is required (see 1.2).
- (d) Inside dimensions of box, specified in inches to the nearest sixteenth in order of number of sides, perimeter, and depth (see 3.2).
- (e) Level of packing required (see section 5).

6.3 Exceptions to specifications.—Nothing in these specifications shall be construed to prohibit the use of boxes of special design when in the experience and judgment of the purchaser, the nature of the articles or material to be shipped justifies such boxes. Exceptional commodities may require less protection while other commodities, especially dangerous articles, may require better boxes than are here specified. In every case, the container must comply with the specification prescribed in the Interstate Commerce Commission Regulations for the Transportation of Explosives and Other Dangerous Articles for the particular articles to which those specifications apply. (The ICC regulations apply to such articles as explosives, inflammable and corrosive liquids, compressed gases, inflammable solids, oxidizing materials, poisons, etc.).

6.4 Common carriers' requirements.—The requirements of this specification on the date of issue conform to the requirements of Rule 41 of the Uniform Freight Classification. The latter are subject to change without notice, however, so that there is a possibility that requirements herein may not conform to all details of the latest requirements of Rule

41. Boxmakers generally conform to such changes as they become effective since they are required to do so before they can imprint the box with the boxmaker's certificate.

6.5 Normally, no samples will be necessary prior to award to determine compliance with this specification. If, for any particular purpose, samples with bids are necessary, they should be specifically asked for in the invitation for bids, and the particular purpose to be served by the bid sample should be definitely stated; the specification to apply in all other respects.

6.6 Supersedure.—This specification supersedes, in part, Federal Specification PPP-C-570, dated October 10, 1956. Style D container in Federal Specification PPP-B-574 will replace type I container included in Federal Specification PPP-C-570.

6.7 For civil agency procurement the definitions and applications of the various levels of packaging and packing are defined in Federal Standard No. 102.

6.8 The design of style D container is possibly covered by Patent No. 2,718,996 owned by Gaylord Container Company.

Notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

MILITARY INTERESTS:

Army—Q C E O Sig T

Navy—S Sh Y

Air Force.

APPENDIX SET-UP AND CLOSURE

10. SCOPE

10.1 This appendix covers requirements for the set-up and closure of seven styles of fiberboard boxes with six or eight sides for use in domestic shipment of supplies.

20. APPLICABLE SPECIFICATIONS AND STANDARDS

20.1 The following specifications and standards, of the issues in effect on date of invitation for bids, form a part of this appendix:

Federal Specifications:

- QQ-S-781—Strapping, Flat; Steel.
- PPP-T-97 — Tape, Pressure-Sensitive Adhesive, Filament Reinforced.

Military Specifications:

- MIL-A-101 — Adhesive, Water Resistant, for Sealing Fiberboard Boxes.

Military Standards:

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

30. REQUIREMENTS

30.1 **Style A, turned-up flaps stapled.**—The bottom of style A boxes shall be inserted with the flaps inside the body and secured with staples or stitching wire. The metal fastenings shall be staggered in two rows and spaced not more than 2 inches apart in the row. One row shall be not over $\frac{5}{8}$ inch from the score and the second row shall be not less than $\frac{3}{8}$ nor more than $\frac{1}{2}$ inch from the first row. The distance between the end of any joint and the nearest metal fastener shall not exceed 1 inch. Metal fasteners shall completely pass through all pieces to be fastened and shall be well clinched and shall not show cracks or other indication of weakness. The top shall be inserted and closed the same as the bottom.

30.2 **Style B, segmented closure glued.**—Style B boxes shall be assembled by attaching the bottom to the outside of the flaps with a water-resistant adhesive applied to the entire contact area. Water-resistant adhesives shall conform to the requirements of Military Specification MIL-A-101. The top shall be closed and secured the same as the bottom.

30.3 **Style C, overlapping flaps glued.**—Style C boxes shall be assembled by first folding down and attaching two opposite flaps to the insert with a water-resistant adhesive applied to the entire contact area. Then successive pairs of opposite flaps are folded down and attached in a similar manner. Top and bottom closures are accomplished in the same manner. Water-resistant adhesives shall conform to the requirements of Military Specification MIL-A-101.

30.4 **Style D, flap and slot strapped.**—One inner lid, with the flaps turned up, shall be positioned on the inside of the body flush with the body. The slotted box bottom is attached by inserting the flaps on the body into the slots on the box bottom and folding the flaps against the sidewall of the body. Folded flaps shall be secured to the body with $\frac{1}{2}$ -inch wide filament-reinforced, pressure-sensitive tape conforming to Federal Specification PPP-T-97, type I; or with $\frac{3}{8}$ -inch wide flat, steel strapping conforming to Federal Specification QQ-S-781. The tape or strapping shall be applied straight and sufficiently taut to embed into the edges of the box, but not to the extent of cutting, tearing, or otherwise damaging the fiberboard or crushing contents. Exposed ends of strapping shall not be of a hazardous length. The top shall be closed and secured the same as the bottom.

30.5 **Style E, double-locked flaps strapped.**—Style E boxes shall be assembled by doubling the flaps of the insert under the flaps of the body and securing the flaps to the body with $\frac{1}{2}$ -inch filament-reinforced, pressure-sensitive tape or $\frac{3}{8}$ -inch wide flat, steel

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strapping in a manner conforming to 30.4. The top shall be closed and secured the same as the bottom.

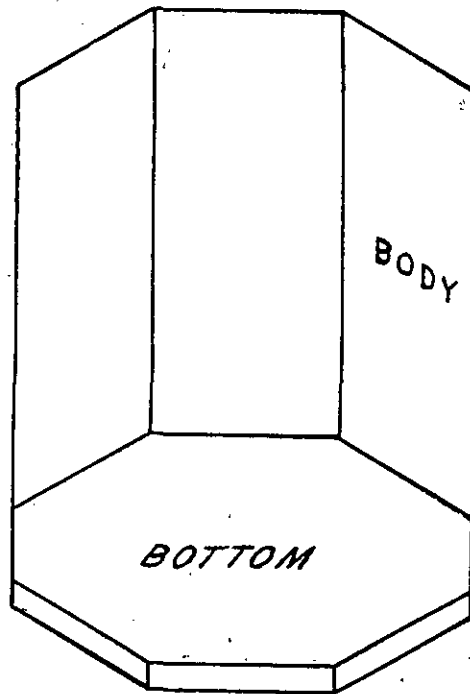
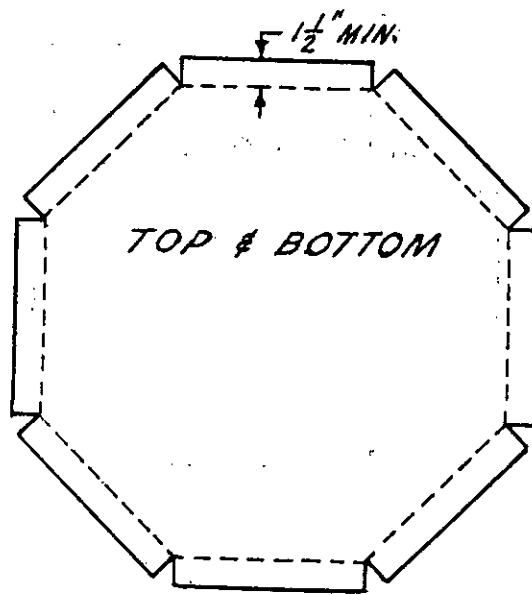
30.6 Style F, segmented closure glued and strapped.—Style F boxes shall be assembled by first attaching the bottom to the flaps in a manner conforming to 30.2. Then the flaps of the bottom shall be folded over and secured to the body in a manner conforming to 30.4. The top shall be closed and secured the same as the bottom.

30.7 Style G, self-locking bottom and stapled top.—The bottom of style G boxes

shall be assembled by first inverting and, starting at the body joint, pushing all the flaps down inside the box in succession. Next, the box shall be set upright and the flaps forced down flat. Then the bottom insert is placed down inside the bottom. The top is stapled in place in a manner conforming to 30.1.

40. INSPECTION

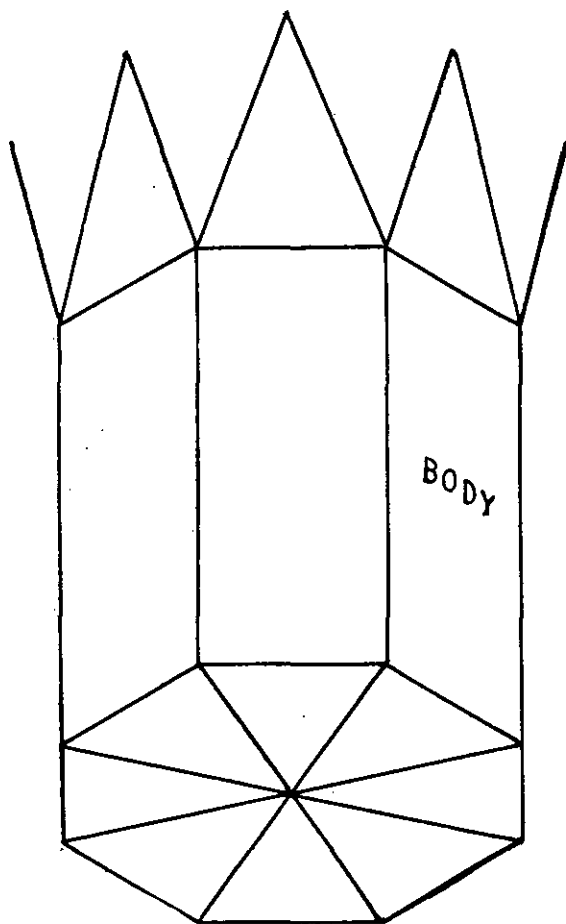
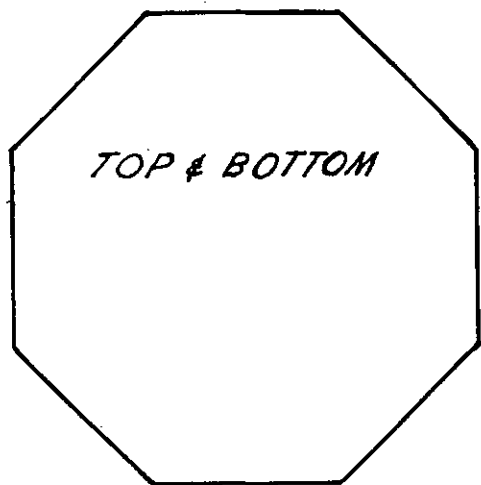
Boxes shall be inspected to determine compliance with the closure and strapping requirements of this appendix. Sampling shall be conducted in accordance with the provisions of Military Standard MIL-STD-105.



Type I or Type II.
Type II shown.

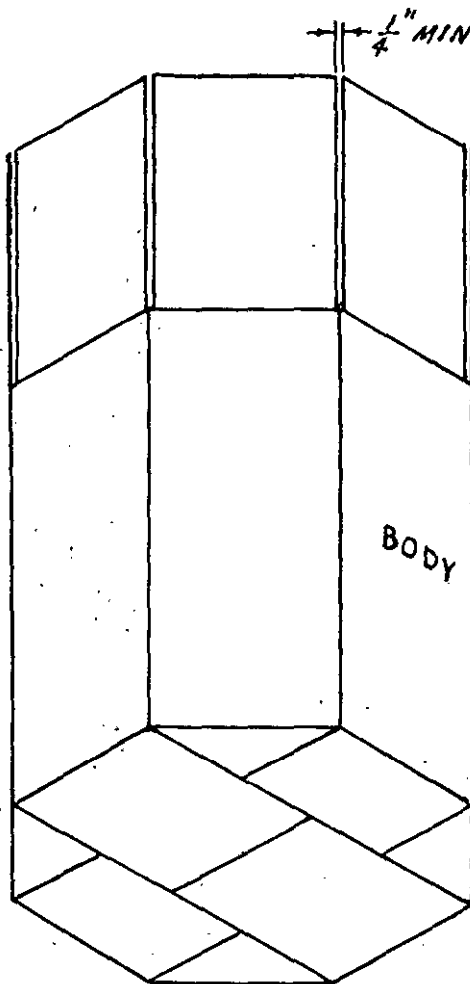
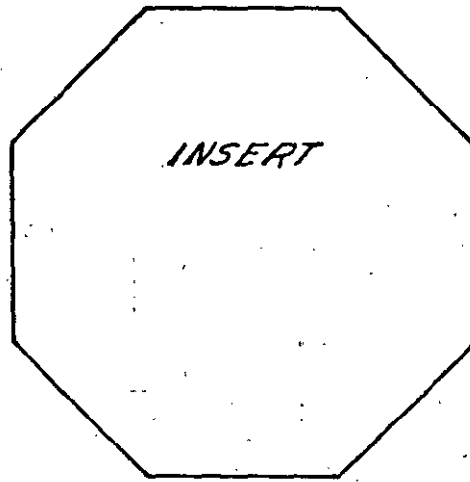
FIGURE 1.—Style A—Turned-up flaps stapled.

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Type I or Type II.
Type II shown.

FIGURE 2.—Style B—Segmented closure glued.

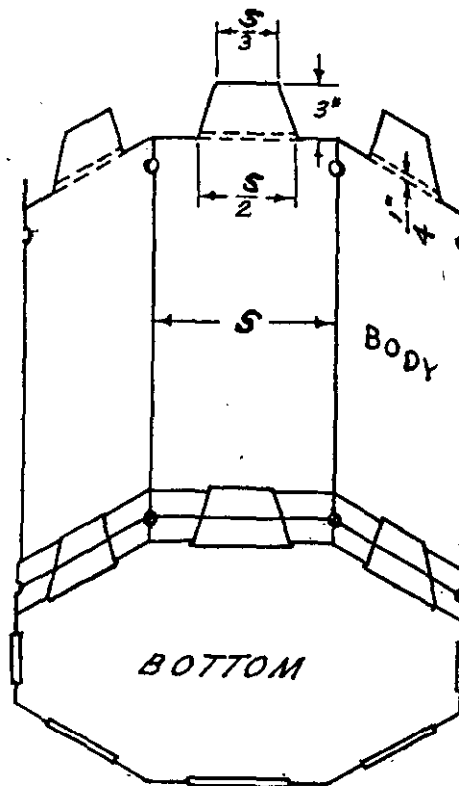
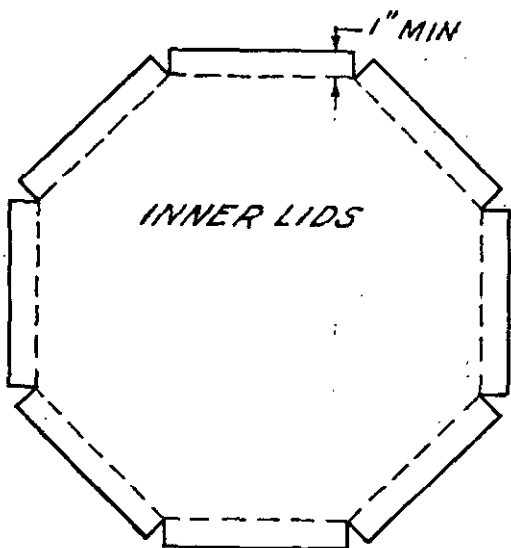
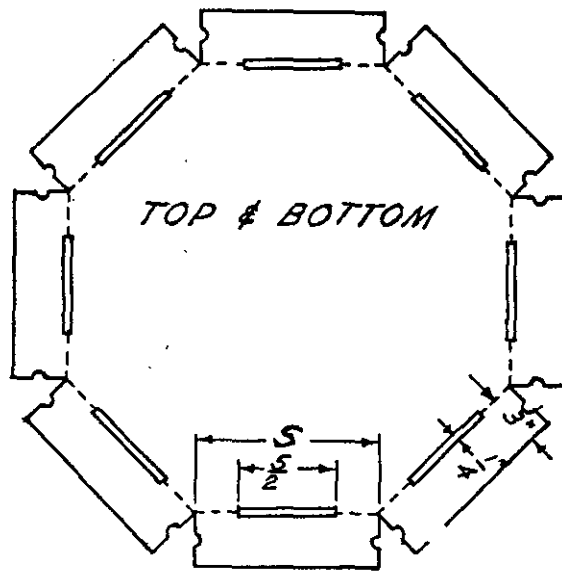


Type I or Type II.
Type II shown.

FIGURE 3.—Style C—Overlapping flaps glued.

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The location of the circular cutouts in the flaps of the top and bottom pieces shall coincide with the location of the holes in the body of the box. Holes in the body shall be 1/2-inch in diameter. Circular cutouts in the flaps shall have a 1/4-inch radius.

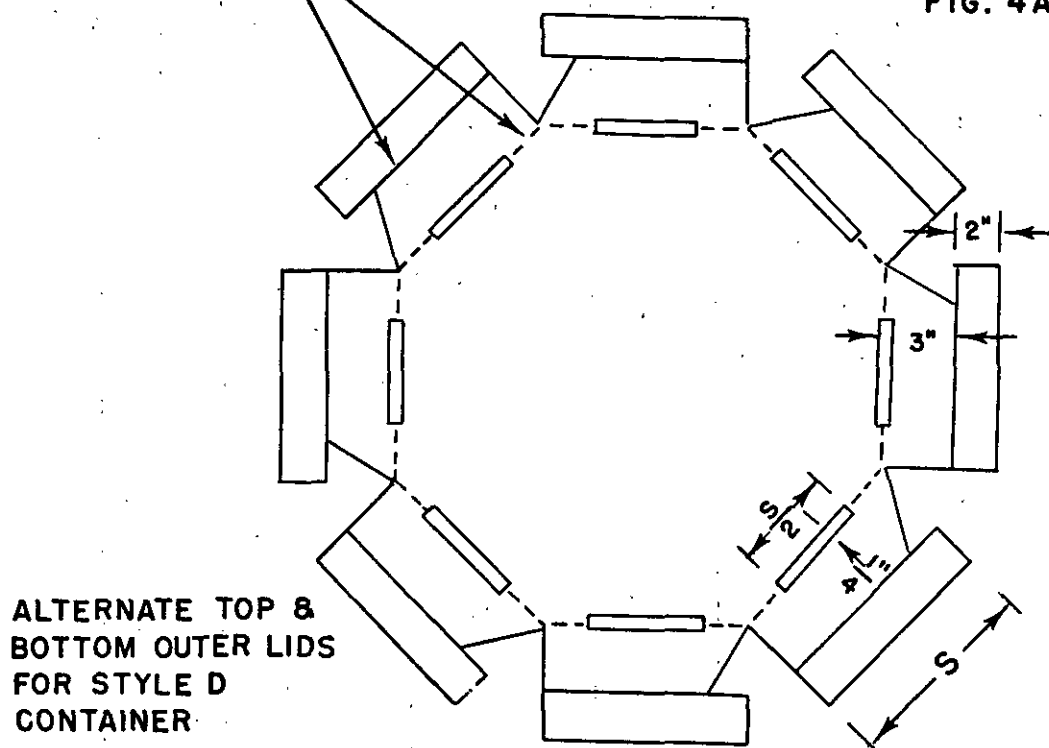
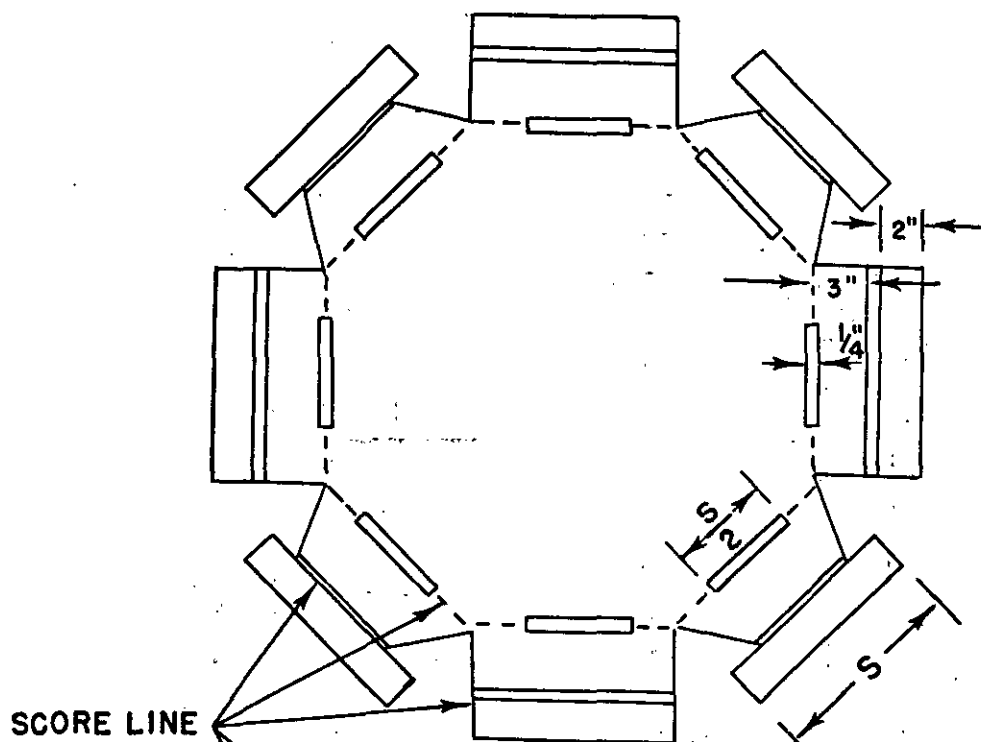


Type I or Type II.

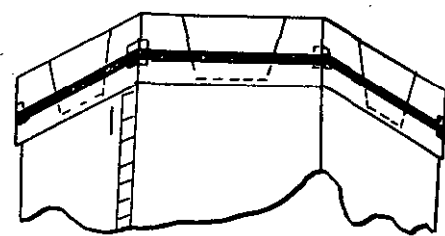
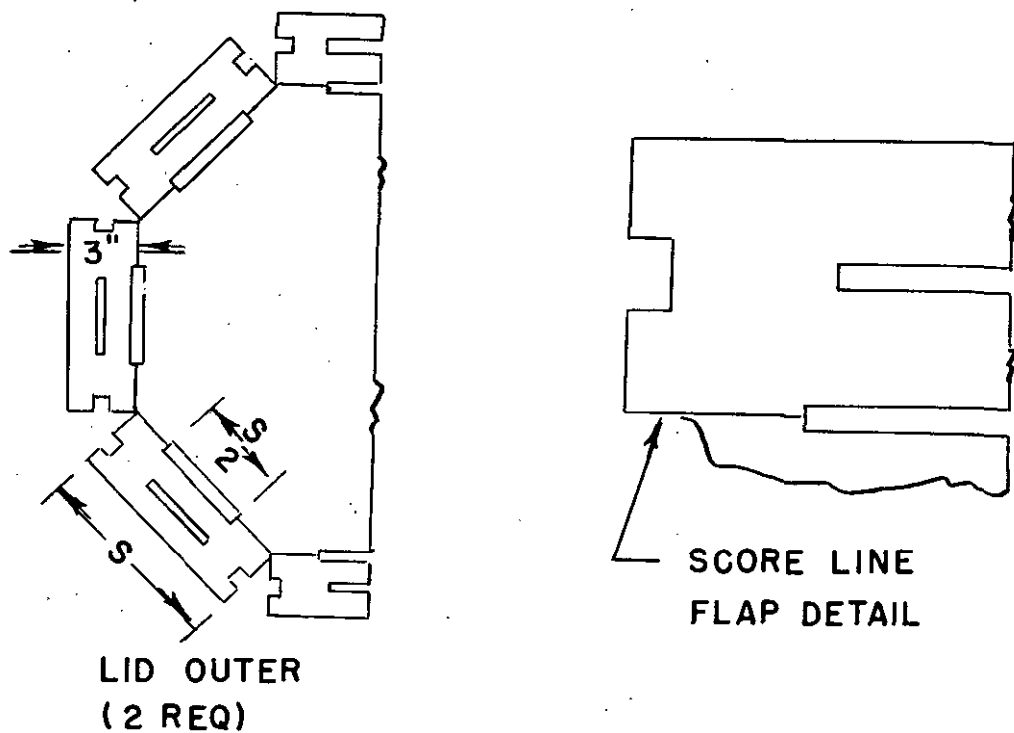
Type II shown.

The top and bottom of the body are cut and scored the same way.

FIGURE 4.—Style D—Flap and slot strapped
(see 6.8).

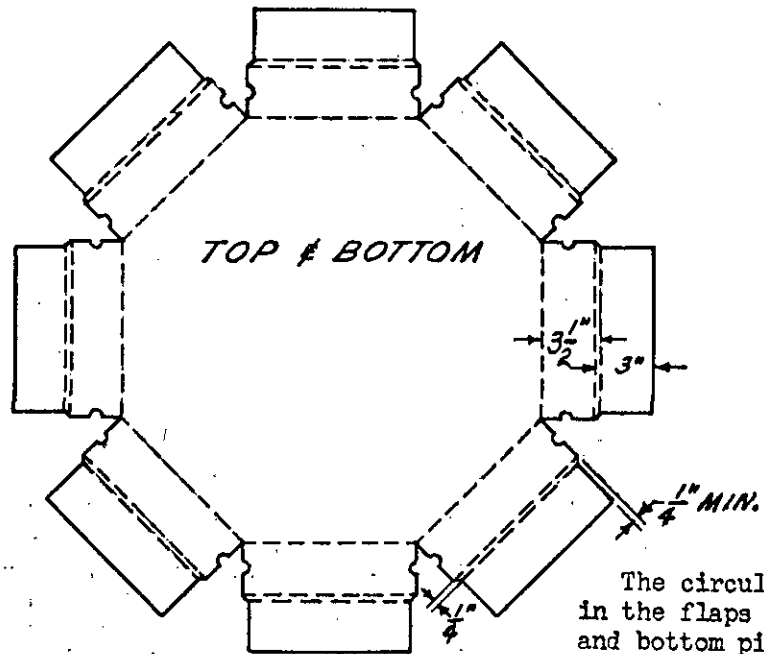


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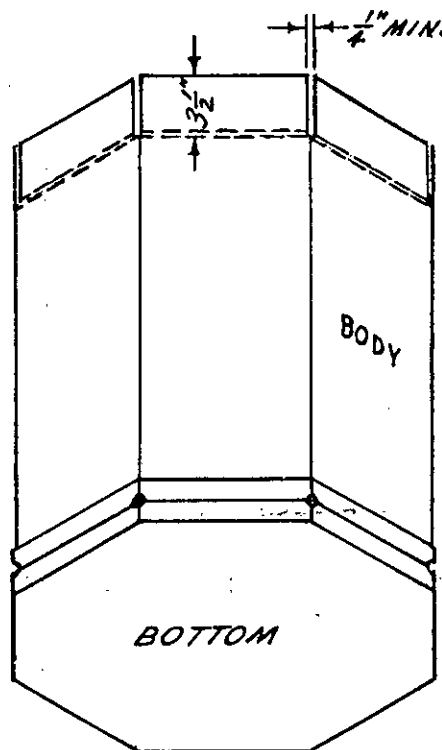


ASSEMBLY DETAILS

FIGURE 4C.



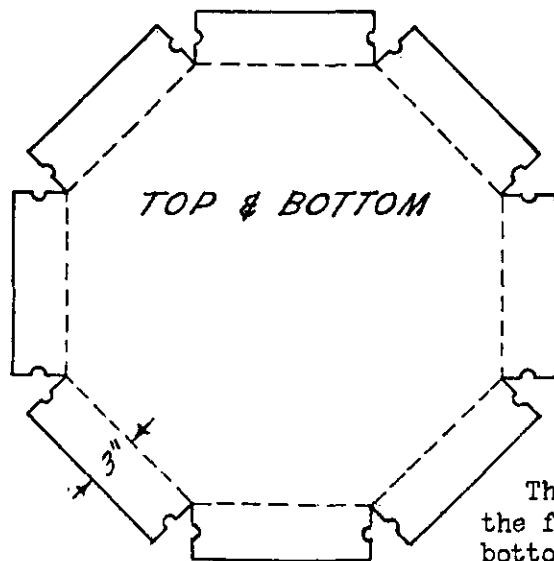
The circular notches in the flaps of the top and bottom pieces shall be located 1 1/2-inches from the score line and shall have a 1/4-inch radius.



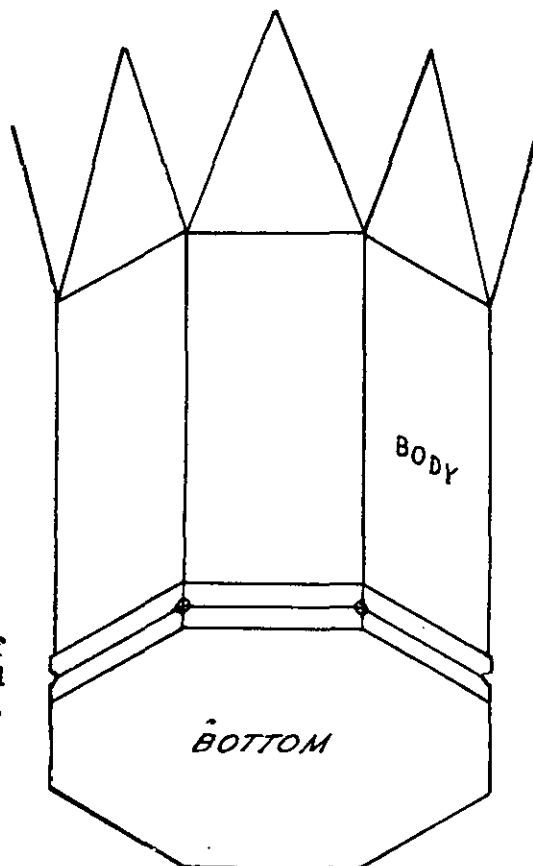
Type I or Type II.
Type II shown.
The top and bottom of
the body are cut and
scored the same way.

FIGURE 5.—Style E—Double locked flaps strapped.

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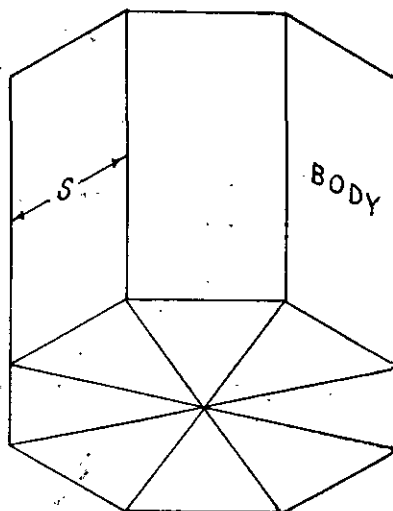
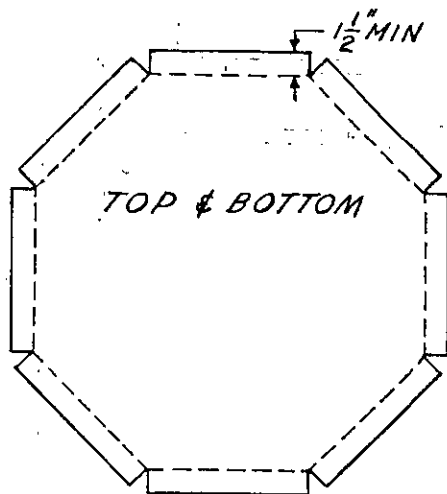


The circular notches in the flaps of the top and bottom pieces shall be located 1 1/2-inches from the score line and shall have a 1/4-inch radius.



Type I or Type II.
Type II shown.
The top and bottom of
the body are cut and
scored the same way.

FIGURE 6.—Style F—Segmented closure
glued and strapped.



STYLE G
SELF-LOCKING BOTTOM
AND STAPLED TOP

| | | |
|---------------|----------------|----------------|
| | A | B |
| OCTAGONAL BOX | $\frac{3}{8}S$ | $\frac{1}{2}S$ |
| HEXAGONAL BOX | S | $\frac{1}{8}S$ |

Type I or Type II.
Type II shown.

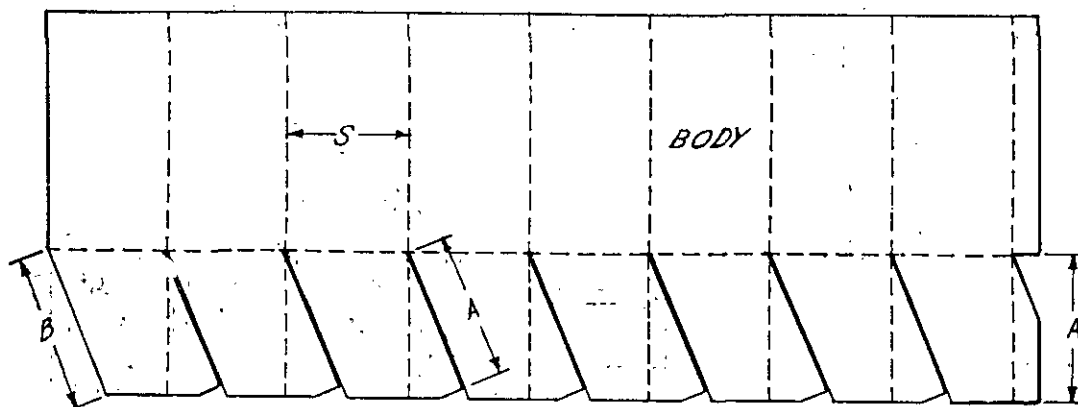


FIGURE 7.

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Copies of this specification may be purchased for 15 cents each.

SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity (as indicated on reverse hereof).

SPECIFICATION

ORGANIZATION (Of submitter)

CITY AND STATE

CONTRACT NO.

QUANTITY OF ITEM PROCURED

DOLLAR AMOUNT

\$

MATERIAL PROCURED UNDER A

DIRECT GOVERNMENT CONTRACT

SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

YES

NO IF "YES", IN WHAT WAY?

4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)

SUBMITTED BY (Printed or typed name and activity)

DATE