

QUARTERMASTER CORPS  
PURCHASE DESCRIPTION

14 December 1949

RATION, SMALL DETACHMENT, 5-IN-1

1. SCOPE AND CLASSIFICATION

1.1 Scope.--This purchase description describes the components and packaging requirements for a ration to be used by the Armed Forces, each case of the rations contains food for 5 men for one day.

1.2 Type and grade.--The ration shall consist of the components herein specified and the components shall be of the grades herein described.

2. APPLICABLE SPECIFICATIONS

2.1 Specifications.--The following specifications, of the issue in effect on date of invitation for bids, form a part of this purchase description:

FEDERAL SPECIFICATION

LLL-B-631 - Box, Fiber, Corrugated (For Domestic Shipment)

MILITARY SPECIFICATIONS

JAN-P-108 - Packaging and Packing for Overseas Shipment -  
Boxes, Fiberboard (V-Board and W-Board),  
Exterior and Interior

JAN-P-120 - Packaging and Packing for Overseas Shipment -  
Cartons, Folding, Paperboard

JAN-P-128 - Packaging and Packing for Overseas Shipment -  
Tape, Water-Resistant, Gummed

JAN-C-237 - Coatings: Exterior, Air-Drying, Camouflage  
and Rust-Inhibiting, for Food Cans

JAN-C-238 - Coating, Exterior, Camouflage and Rust-Inhibiting,  
(for Processed and Nonprocessed Food Cans)

MIL-L-1497 - Labeling and Marking of Metal Cans for  
Subsistence Items

QUARTERMASTER CORPS TENTATIVE SPECIFICATION

QQMG 94 - Specifications for Marking of Outside Shipping  
Containers by Contractors

U. S. ARMY SPECIFICATION

94-40645 - Marking, Exterior, Domestic and Export Shipment  
by Contractors 1/

Specifications applicable to individual components are noted in 5.6.





(Army.--Copies of specifications should be obtained from the procuring agency or as directed by that agency. Both the title and identifying number or symbol should be stipulated when requesting copies.)

(Navy.--Copies of Federal and Military specifications may be obtained upon application to the Bureau of Supplies and Accounts, Navy Department, Washington, 25 D. C., except that activities of the Armed Forces should make application to the Supply Officer in Command, Naval Supply Center, Norfolk 11, Va. Quartermaster Corps Tentative Specifications may be secured from the Specifications Branch, Chicago Quartermaster Purchasing Office, 1819 West Pershing Road, Chicago 9, Ill. Both the title and identifying number or symbol should be stipulated when requesting copies.)

(Marine Corps.--Copies of Federal and Military specifications may be obtained upon application to The Quartermaster General, Headquarters, U. S. Marine Corps, Navy Building, Washington 25, D. C. Both the title and identifying number or symbol should be stipulated when requesting copies.)

(Air Force.--Copies of Federal and Military specifications may be obtained upon application to the Commanding General, Air Materiel Command, Wright-Patterson Air Force Base, Dayton, Ohio. Both the title and identifying number or symbol should be stipulated when requesting copies.)

2.2 Other publications.--The following publications, of the issue in effect on date of invitation for bids, form a part of this purchase description:

BUREAU OF SUPPLIES AND ACCOUNTS PUBLICATIONS

General Specifications and Conditions of Delivery Applying to  
Provisions Contracts 2/  
Navy Shipment Marking Handbook 2/

(Copies of Bureau of Supplies and Accounts publications listed above may be obtained upon application to the Bureau of Supplies and Accounts, Navy Department, Washington 25, D. C., except that activities of the Armed Forces should make application to the Supply Officer in Command, Naval Supply Center, Norfolk 11, Va.)

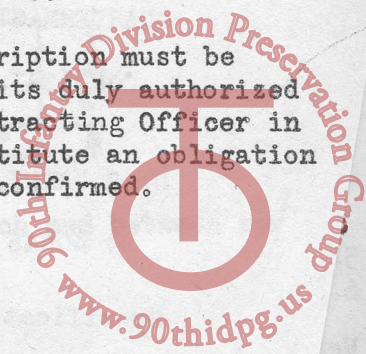
3. REQUIREMENTS

3.1 Preproduction sample approval.--When specified (see 6.1), a sample of the finished product shall be submitted to the contracting officer for approval before production is commenced.

3.2 Except where otherwise noted, compliance with specification requirements for ingredients used in the manufacture of the various components shall have been determined not more than 60 days prior to use of such ingredients.

3.3 Deviations from the requirements of this purchase description must be approved by the Quartermaster Food and Container Institute or its duly authorized representative. Changes directed must be confirmed by the Contracting Officer in accord with changes articles of the contract and will not constitute an obligation of funds in excess of the contract amount unless and until so confirmed.

2/ Applicable to Navy purchases only.





3.4 All deliveries shall conform in every respect to the provisions of the Federal Food, Drug, and Cosmetic Act and regulations promulgated thereunder.

3.5 Menus.--The ration shall be packaged in 5 menus, as specified.

3.6 Components.--The Ration, Small Detachment, 5-in-1EX1, shall consist of the following components in menus as specified.

Product	Container	Minimum net wt. (ounces)	Specification	Type Grade Class	Number of units per menu				
					1	2	3	4	5
Apricots	401 x 411	29	Z-A-631	Style Ia Grade B or Better*		1			
Cherries, Royal Anne	401 x 411	30	Z-C-301	Type IIa Grade B or Better*				1	
Fruit cocktail	401 x 411	30	Z-F-681	Grade A*					1
Peaches	401 x 411	29	Z-P-191	Type I or II Style I, Grade B or better			1		
Pineapple or	401 x 411	29	Z-P-351	Style I, II or III, Grade B or better*	1				
Applesauce	401 x 411	29	Z-A-621	Grade A					
Beans, green	307 x 409	19	JJJ-B-151	Type I Grade B or better			1		
Beans, lima	307 x 409	20	JJJ-B-126	Type I, Grade B or better		1			
Corn, whole kernel	307 x 306	12	N-C-501	Style II vacuum-packed	1				
Peas	307 x 409	20	JJJ-P-151	Type I or II Grade B or better					1
Tomatoes	307 x 409	19	JJJ-T-571					1	
Potatoes, white	401 x 411	29	MIL-P-3026			1	1	1	
Potatoes, sweet	401 x 411	29	JJJ-P-611	Style II Type a	1				
Bacon, sliced	307 x 510	24	MIL-B-3049				1	1	1
Beef and gravy	404 x 414	34	JAN-B-723	Type II	1		1		

\*To be packed in heavy sirup.



Product	Container	Minimum net wt. (ounces)	Specification	Type Grade Class	Number of units per menu				
					1	2	3	4	5
Beef & Vegetable	401 x 411	30	JAN-B-736						1
Beef, roast	404 x 312	24	JAN-B-791					1	
Ham and eggs	404 x 414	34	JAN-H-1038					1	
Ham	404 x 414	34	JAN-H-1021		1				
Hamburgers	300 x 409	13-1/4	JAN-H-1048	Type II				2	
Meat balls and spaghetti	401 x 411	30	JAN-M-682				1		
Pork and gravy	401 x 411	30	JAN-P-1044	Type II		1			
Frankfurters	401 x 411	22	MIL-S-3069	Type II		1			
Sausage links, pork	404 x 414	32	JAN-S-1104	Type II	1				
Luncheon meat	3-7/8x2-1/8 x3-1/4 or 3-3/4x1-15/16 x 3-5/8	12	JAN-L-1080	Type I or II					2
Soup, chicken	211 x 400	10-1/2	JJJ-S-581		2				
Soup, tomato	211 x 400	10-1/2	JJJ-S-581						2
Crackers (bread-type unit)	401 x 411	8	MIL-C-1324 & Par 3.7.1 of MIL-R	Class 3 Size C	3	3	3	3	3
Cereal, premixed		10	JAN-C-1045 & Par 3.7.4.1 of MIL-R-		1		1		1
Cereal, premixed, compressed disc		2	JAN-C-1045 & Par 3.7.4.2 of MIL-R-			5		5	
Pudding, pineapple & rice	300 x 409	18	MIL-P-1438			1			
Pudding, fig	300 x 409	12	MIL-P-1499	Type II			1		
Cake, fruit	300 x 409	12	MIL-P-1499	Type V					1
Pudding, Date	300 x 409	12	MIL-P-1499	Type III				1	
Cheese-spread	300 x 200	6	JAN-C-595	Type I Class 2	1		1		
Milk, dry, modified, sweetened	300 x 200	3	Purchase description		1	1	1		1
Bar, chocolate, sweet		1	MIL-C-1323	Type I Class 2	10	10		10	10
Bar, caramel-nougat		1-1/4 or 1-2/3	MIL-C-1424	Type III Class 3	5		5		5



Product	Container	Minimum net wt. (ounces)	Specification	Type Grade Class	Number of units per menu				
					1	2	3	4	5
Bar, chocolate-cocoaanut		1-1/4 or 1-2/3	MIL-C-1424	Type III Class 1		5		5	
Bar, starch-jelly		2	MIL-C-1424	Type IV Class 2			5		
Catsup	300 x 106	4	JJJ-C-91	Type I Grade A		1		1	
Cocoa		10	MIL-C-3031 and Par 3.7.7	Type I Class 1	1	1	1	1	1
Coffee	211 x 214	4	JAN-C-1019	Type II	1	1	1	1	1
Jam	211 x 304	11	CQD 390 and Par 3.7.6	Type IV	1			1	
Jam	211 x 304	11	CQD 390 and Par 3.7.6	Type V		1			1
Jam	211 x 304	11	CQD 390 and Par 3.7.6	Type VII			1		
Jam	211 x 304	11	CQD 390 and Par 3.7.6	Type IX			1	1	
Jam	211 x 304	11	CQD 390 and Par 3.7.6	Type III		1			1
Gum, chewing, candy coated		12 tablets	MIL-C-10022 (QMC)	Type II	3	3	3	3	3
Peanuts, roasted	300 x 308	7-1/2	MIL-P-831	Type I Class 2	1				1
Peanuts, roasted	300 x 308	7-1/2	MIL-P-831	Type II Class 1				1	
Salt		1	SS-S-31 & Par 3.7.5 of MIL-R	Type II	1	1	1	1	1
Sugar		4	JJJ-S-791 & Par 3.7.3 of MIL-R	Type I(a)	3	3	3	3	3
Cigarettes		20 ea	No Spec. See Par 3.7.8		5	5	5	5	5
Matches, safety		20 sticks	CQD 127 & Par 3.7.13		5	5	5	5	5
Opener, can			USA-28-135		2	2	2	2	2
Soap		2	USA-22-275 & Par 3.7.10	Type I	1	1	1	1	1
Sponge, cellulose		1"x2"x3"	L-S-626	Type I	1	1	1	1	1
Tablets, water-purification, halazone		50 tablets	To be furnished by OQMG. See Par 3.7.9		1	1	1	1	1
Paper, toilet		25 sheets	UU-P-556 & Par 3.7.11	Type II	1	1	1		1
Towels, paper		25 sheets	UU-T-591 & Par 3.7.12	Type II	1	1	1	1	1
Spoon, plastic			JAN-S-676		15	15	15	15	15
Trays			To be furnished by OQMG		15	15	15	15	15
Menu			To be furnished by OQMG		1	1	1	1	1



3.7 Exceptions and Cans

3.7.1 Bread-type units.--The components of the bread-type unit, (10 round crackers, class 3, size C as specified in Specification MIL-C-1324) shall be placed in a key-opening, open-top, hermetically sealed style, round, metal can, size 401 by 411, with soldered side seam and compound-lined double-seamed ends. The can shall be made throughout from commercial 0.50-pound electrolytic tin plate or the body may be made from commercial 0.50-pound electrolytic tin plate and the ends from bonderized black plate. If the ends are made from bonderized black plate, the inside surfaces of the ends shall be coated with an enamel suitable for the contents. A corrosion-resistant key shall be attached to the bottom of the can by soldering or welding, using a non-corrosive flux. The crackers shall be packaged in the can and shall be protected from breakage by a liner and pads of single-faced corrugated material made from two sheets of grease-resistant glassine, each having a basis weight of not less than 25 pounds per ream (24 x 36 - 500) and a grease resistance of not less than 200 seconds (TAPPI T-454). The liner shall completely cover the inside body surface of the can and shall be so placed that the tips of the corrugations are in contact with the walls. Two pads shall be placed at the bottom of the can and two pads shall be placed between the fifth and sixth crackers. The pads shall have the smooth surfaces in contact with each other. The cans shall have lithographed in black on the lid in accordance with Specification MIL-L-1497 the following label information:

BREAD TYPE UNIT (in letters larger than any others used for the label)

Net Weight - - - - -

Packed by - - - - -

3.7.2 Starch jelly bar.--The starch jelly bar shall comply with Specification MIL-C-1424 and shall consist of four separate pieces of approximately the same dimensions. The over-all dimensions of the four pieces wrapped in one package shall be approximately 3-1/8 inches in length, 1-1/4 inches in width, and 3/4 inch in thickness. Each piece in the package shall be of a different flavor.

3.7.3 Sugar.--Four ounces of sugar shall be packaged in a heat sealed bag made from a laminated material consisting of two sheets of glassine, each having a minimum basis weight of 20 pounds-per ream (24 x 36 - 500) laminated with a minimum of 5 pounds of wax per ream (24 x 36 - 500). The closure and seams shall be siftproof. The filled and sealed bag shall be placed in a siftproof, seal-end carton made from a bending chipboard having a minimum thickness of 0.018 inch and a No. 2 finish. The carton size shall be approximately 1-7/8 inches in length by 1-1/2 inches in width by 3-9/16 inches in depth. The carton shall be labeled on one wide panel with the following information:

SUGAR (in letters larger than any other used for the label)

GRANULATED

4 OZ NET

PACKED BY - - - - -

3.7.4 Cereal.--





3.7.4.1 Premixed.—Two ounces of the product shall be packaged in a bag which shall be packed in a carton. The bag shall be a flat or gusset style made of one of the materials specified in 3.7.4.1.1 and shall be closed with a heat seal or siftproof fold. The carton shall be made as specified in 3.7.4.1.2.

3.7.4.1.1 The bag shall be made of glassine laminated to glassine, glassine laminated to semi-glassine, glassine laminated to No. 1 kraft highly finished, or cellophane (450 MST-54 or 450 MS-3) laminated to glassine cellophane laminated to semi-glassine, or cellophane laminated to No. 1 kraft highly finished. All papers shall be not less than 25 pounds per ream basis weight (24 x 36 = 500). Laminations shall be made with not less than 9 pounds per ream (24 x 36 = 500) of an odorless and permanently plastic laminating material. The glassine or cellophane shall be on the inside of the bag.

3.7.4.1.2 The carton shall be made in accordance with style I, type A, class a of Specification JAN-P-120. The carton board shall meet the minimum bursting strength requirements. The outside of the carton shall be a dull brown or similar color. The size of the carton shall be not greater than 3-11/16 inches in length by 1-3/4 inches in width by 5 inches in depth. Other carton sizes may be used if approved by the Quartermaster Food and Container Institute for the Armed Forces.

3.7.4.1.2.1 The following information shall be printed on one side of the 10-ounce carton:

<u>PREMIXED</u>	(24 pt. capital letters)
<u>CEREAL.</u>	(24 pt. capital letters)
with	(12 pt. upper and lower case letters)
Salt, sugar, and	(12 pt. upper and lower case letters)
powdered skim milk	(12 pt. upper and lower case letters)

<u>DIRECTIONS</u>	(12 pt. capital letters)
This cereal has been pre-cooked. No further cooking is required. Add as much water, hot or cold, as desired.	(12 pt. upper and lower case letters)

This package will serve five persons.

10 OZ. NET	(12 pt. capital letters)
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Made by	
Name and address of manufacturer	(12 pt. upper and lower case letters)

3.7.4.2 Cereal, premixed, compressed.—Two ounces of premixed cereal shall be compressed into a disc having over-all dimensions not to exceed 2-3/4 inches in diameter and 11/16-inch thick. Sample lots, selected at random, shall have an average weight per disc of not less than 2 ounces, and no disc shall weigh less than 1.8 ounces. Sufficient pressure shall be exerted on the cereal to make a disc which can be eaten dry without crumbling and which shall reconstitute satisfactorily when crumbled and mixed. The disc shall be wrapped and heat-sealed in either DuPont 450 MSAT-86, Sylvania 450 MSP-3, or equivalent cellophane. The wrap shall conform closely to the contour of the disc.





3.7.4.2.1 The following information shall be random printed on a strip not over 2 inches wide along the center of the cellophane wrap. The information shall be repeated every 1-1/2 inches:

- READY TO EAT (10 pt. bold capital letters)
- CEREAL (24 pt. bold capital letters)
- (With Milk and Sugar Added) (6 pt. bold capital or lower case letters)
- EAT DRY OR CRUMBLE )
- IN CAN AND ADD HOT ) (10 pt. bold capital letters)
- OR COLD WATER )
- (Name of manufacturer) (In 6 pt. capital and lower case letters)
- 2 OZ. NET (6 pt. capital letters)
- (Name of compressor) (In 6 pt. capital and lower case letters)

3.7.5 Salt, granulated. One ounce of granulated salt shall be packaged in a kraft-paper envelope. The kraft paper shall have a basis weight of not less than 45 pounds per ream (24 x 36 - 500) and a bursting strength (TAPPI - T - 403) of not less than 40 points. The flaps shall be securely sealed. The envelope shall be so constructed and sealed that no sifting occurs.

3.7.5.1 The bag shall have the following label information printed on one side of the envelope:

- SALT (in letters larger than any others used on the label)
- Granulated
- 1 OZ. NET

Unused salt will serve as an excellent tooth powder

Packed by - - - - -

3.7.6 Jam. The following information shall be lithographed on the cover of the cans:

- JAM (kind of jam) (In letters larger than any others used on the label)
- Name and address of manufacturer





3.7.7 Cocoa beverage powder.--The carton shall be as described in the applicable specification and shall be either 2-1/2 inches in length by 2 inches in width by 4-3/4 inches in depth or 3-1/4 inches in length by 2-1/4 inches in width by 3-1/4 inches in depth. Other sizes may be used if approved by the Quartermaster Food and Container Institute.

3.7.8 Cigarettes.--Cigarettes shall be of the four leading brands in proportion to their relative Army Exchange Service sales volume. The cigarettes shall be packaged in a standard commercial package of 20 cigarettes, heat sealed in a suitable water-vapor-resistant cellophane and assembled in the dry pack (see 5.2.1) in ratio as furnished by contracting officer.

3.7.9 Tablets, water-purification.--Fifty water-purification tablets shall be packaged in an amber or green glass bottle approximately one inch in diameter and 1-5/8 inches tall with an enameled, or hot-dip tin plate, knurled, screw cap with a suitable liner and vinylite facing. The cap shall be screwed on tightly so that a tight top seal is made.

3.7.10 Soap, all-purpose.--Each 2-ounce bar of soap shall be packaged in a well-sealed bag as specified in Specification 22-275.

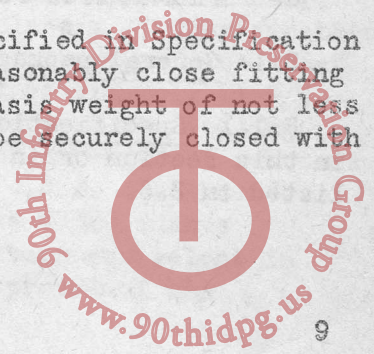
3.7.11 Paper, toilet.--One hundred and twenty-five sheets of toilet paper shall be packaged in an asphalt-laminated kraft or other waterproof kraft paper envelope having an approximate size of 3-1/2 by 5-3/4 inches. The envelope shall impart no objectionable odor or flavor to the food items.

3.7.12 Towels, paper.--The paper towels shall be made in accordance with Type II of Specification UU-T-591, multifold, approximately 9-3/8 inches by 9-5/8 inches, except that the paper shall have a minimum basis weight of 34 pounds per ream (24 x 36 = 500), and the color shall be that of unbleached kraft or a similar dull color. If made from unbleached sulphite pulp, the towels or the pulp shall have been deodorized. The folded paper towels shall be bundled in two bundles of equal thickness and inserted side by side into a polyethylene bag having inside dimensions approximately 7 inches wide by 12 inches deep. The polyethylene material shall be approximately 0.002 inch but not less than 0.0015 inch thick. After filling, the bags shall be pressed flat to exclude air and completely closed by heat-sealing.

3.7.13 Matches.--Labeling shall be in accordance with Specification CQD 127, except that all references to malaria shall be omitted.

3.7.14 Trays.--Five trays shall be packaged in a flat kraft-paper bag or envelope approximately 9 inches wide by 12-1/2 inches long. The kraft paper shall have a basis weight of not less than 30 pounds per ream (24 x 36 = 500). The bag shall be closed securely either by gluing or taping. The top shall be folded against the inside of the plates.

3.7.15 Spoons, plastic.--Spoons shall be packaged as specified in Specification JAN-S-676, except that five spoons shall be packaged in a reasonably close fitting kraft-paper bag or envelope. The kraft paper shall have a basis weight of not less than 30 pounds per ream (24 x 36 = 500). The package shall be securely closed with an adhesive or tape. Bags may be flat or gusset style.





3.8 Menus.--The menus for breakfast, dinner, and supper shall be furnished. One copy shall be placed inside on top of each dry pack as specified in 5.2.1.

3.9 Workmanship.--The product shall be prepared, processed, and packaged under modern sanitary conditions and by such methods as will reflect good standards of workmanship and quality in the finished product.

#### 4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 Sampling.--Sampling procedures shall be as specified (see 6.1).

4.2 Inspection.--Inspection procedures shall be as specified (see 6.1).

4.3 Tests.--

4.3.1 Chemical analyses.--Unless otherwise specified, chemical analyses, when required, shall be made in accordance with methods of the Association of Official Agricultural Chemists (see 6.2).

4.3.2 Determination of ascorbic acid.--The amount of ascorbic acid in the fortified coffee product and cocoa beverage powder shall be calculated by the difference from the assay values of the unfortified and the fortified coffee product. The ascorbic acid assay may be conducted photometrically by the dye, or the 2.4 dinitrophenyl hydrazine method as described in the "Methods of Vitamin Assay" of the Association of the Vitamin Chemists (see 6.3).

4.3.3 Packaging tests.--

4.3.3.1 Except as herein specified, physical tests on packaging and packing materials, when required, shall be made in accordance with the methods of the American Society for Testing Materials (ASTM) and the Technical Association of the Pulp and Paper Industry (TAPPI) (see 6.4).

4.3.3.2 The test for bursting strength of the board shall consist of at least six punctures by a Mullen or Cady tester, half from each side of the sheet, made at least 2 inches from the edge.

4.3.3.3 Test for waterproof bag.--The filled and sealed bags described in 5.2.1.1 shall be tested for leakage of the outside bag by submerging the package for at least 24 hours under 2 inches of water at room temperature. Packages shall be submerged flat. After the 24-hour period, the package shall be dried off and the bags cut open. Any moisture inside the bag or on the outside surface of the carton shall indicate an unacceptable package.

#### 5. PREPARATION FOR DELIVERY

5.1 General packaging and domestic packing.--

5.1.1 Specification requirements.--The packaging of items not specially described in this section or in 3.7 shall be in accordance with the applicable specifications listed in 3.6.





5.1.1.1 Material quality.--All materials used for packaging shall be free from any material which may transmit an objectionable odor or flavor to the contents. Unless otherwise specified, the color of the package both inside and outside (except transparent overwraps and the inside of metal containers) shall be a dull non-reflecting color such as khaki, olive-drab, or that of unbleached kraft.

5.1.1.2 Canned products.--Unless otherwise specified in the applicable specification, the canned products specified in 3.6 shall be packaged in an open-top style, hermetically sealed type, round, metal can, with soldered side seam and compound-lined, double-seamed ends. Can sizes shall be as specified in 3.6. Unless otherwise specified in the applicable specifications, the cans shall be made from tin plate meeting the requirements of Allocation Order M-81. The interior of the cans shall be plain or enameled in accordance with good commercial practice. All cans shall be coated over-all outside with an olive-drab, corrosion-resistant lacquer or enamel complying with Specifications JAN-C-237 or JAN-C-238. If the solder used for the side seam contains 30 percent or more of tin, the soldered area need not be coated.

5.1.1.3 Labeling of cans.--The cans for canned fruits, vegetables, soups, and catsup covered by Federal specification (see 3.6) shall be labeled in accordance with Specification MIL-L-1497 and with the following information:

Name of product (in letters larger than any others used for the label)

Net weight

Instructions for preparation (if necessary)

Name and address of packer

Any other information required by the Federal Food, Drug, and Cosmetic Act and Regulations promulgated thereunder.

5.1.2 Delivery of components to assemblers.--The components shall be packed so as to insure arrival at destination in satisfactory condition and in containers complying with Consolidated Freight Classification Rules for lowest rates.

5.1.2.1 Marking for domestic shipment of components.--Marking shall be in accordance with Specification OQMG 94.

## 5.2 Assembly of ration.--

5.2.1 Dry pack assembly.--The components of the dry pack include all items other than cans, soap, paper towels, trays, and spoons. Dry pack items shall be assembled according to the requirements of each menu in the most convenient and compact manner. The cartons shall be made in accordance with style III, type A, class a of Specification JAN-P-120, except that side tuck-in flaps are not required and the length of the front flap shall be not less than one inch. The carton size shall be approximately 11-5/4 inches in length by 7-11/16 inches in width by 2-7/16 inches in depth. The folding carton shall be manufactured from board having an average bursting strength of not less than 200 pounds per square inch when tested in accordance with 4.3.3.2. The board used shall be one of the following: solid kraft, minimum thickness 0.030 inches; kraft lined chipboard, minimum thickness 0.040 inch. Folding cartons equivalent in style and type to that specified above will be acceptable upon approval of the contracting officer.



5.2.1.1 The filled and closed carton specified in 5.2.1 shall be inclosed in a waterproof bag as specified in 5.2.1.1.1 or 5.2.1.1.2. The mouth of the bag shall be over one end panel with the side seams of the bag over the sides of the carton. The corners of the bag shall be folded against the end panels of the carton. The filled and sealed bags shall be tested as specified in 4.3.3.3. Not more than 10 percent of the bags so tested shall indicate a leak.

5.2.1.1.1 Waterproof bag.-- The bag shall be of the flat envelope type, heat-sealed on four edges. The bag shall be made from one of the following materials with the cloth on the outside:

5.2.1.1.1.1 Vinyl film 0.002-inch thick, laminated to or coated on a 0.001-inch aluminum foil laminated to or coated with 0.0015-inch vinyl film laminated to cloth.

5.2.1.1.1.2 A combination of 0.002-inch polyethylene, kraft paper having a minimum basis weight of 50 pounds per ream (24 x 36 - 500), 0.0015-inch aluminum foil, and cloth.

5.2.1.1.2 Alternatively, the bag may be made of a laminated material consisting of 40 pounds per ream kraft paper laminated with 75 pounds per ream of asphalt to 0.00035-inch aluminum foil laminated with 75 pounds per ream of asphalt to 40 pounds per ream kraft (ream weight basis 24 x 36 - 500). The laminated material shall have a 20 percent stretch in each direction. The bag seams shall be made with a moisture-proof adhesive in a strip not less than one-half inch wide at any point. Asphalt used for laminating and sealing shall be essentially odorless. The asphalt shall withstand a temperature of 145° F. for 5 hours without running and shall retain some plasticity at a temperature of minus 20° F. The mouth of the bag shall be lined with a continuous strip of pressure-sensitive waterproof adhesive covered with an easily removable protective film, which, upon removal of the film, permits a secure closure of the bag to be made by means of pressure rollers at as low a temperature as 60° F. Pressure rollers shall be used in sealing the bag. The seams and closures shall not break when bent to a 180° fold at 60° F.

5.2.1.2 The folding carton, packaged as specified in 5.2.1.1, shall be placed in a snug-fitting two-piece slide box having an inner and outer slide as illustrated in Figure 5 of Specification LLL-B-631. The two-piece slide box shall be made from solid fiberboard complying with compliance symbol WEs of Specification JAN-P-108. The body joint of the outer slide shall be taped with not less than 2-inch wide cloth tape or water-resistant gummed tape conforming to Specification JAN-P-128. The inside dimensions of the box shall be 12-5/16 inches in length by 8 inches in width by 2-11/16 inches in depth.

5.2.1.3 No labeling is necessary on the two-piece slide fiberboard box.

5.2.2 Assembly of tray pack.--Three packages of trays, as specified in 3.7.14 and three packages of spoons as specified in 3.7.15 shall be assembled in a heat-sealed polyethylene bag. The polyethylene material used for the bag shall be approximately 0.004-inch thick but not less than 0.0035-inch thick. The bag shall be approximately 12 inches wide by 14 inches long inside. Two packages of trays shall be nested. The third package of trays shall be inverted with the ribs of the trays over the ribs of the nested trays. Three packages of spoons as specified in 3.7.15 shall be placed in the space thus formed between the packages of trays. The assembled items shall then be inserted in the polyethylene bag. The assembly of trays and spoons and one package of towels as specified in 3.7.12 shall be packed in a double slide box as specified in 5.2.1.2, except that the inside dimensions shall be 12-15/16 inches in length by 8 inches in width by 2 inches in depth. The package of towels shall be rolled lengthwise and placed in the inner slide at one end of the tray assembly.

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courtesy of the Quartermaster Museum, Ft. Lee, Virginia



5.2.3 Final assembly.---The canned items, soap, dry pack (5.2.1), and tray pack (5.2.2), for all menus shall be packed in a fiberboard container with sleeve, made, sealed, and strapped in accordance with style RSC-SL, compliance symbol V2s of Specification JAN-P-108. The fiberboard container shall be approximately 14-9/16 inches in length by 12-7/8 inches in width by 8-1/2 inches in depth. The container shall be strapped with two straps applied at right angles to each other. One strap shall be centered over the top, sides, and bottom, and the other shall be centered over the top, ends, and bottom. The longer strap shall be applied first.

5.2.3.1 Arrangement of items.---The dry pack, tray pack, and canned items required according to 3.5 shall be arranged as specified in Appendix II. Pads and dividers shall be made and inserted as specified in Appendix II and shall be made from solid fiberboard complying with compliance symbol W5s of Specification JAN-P-108. The soap shall be placed in a cell with one of the smaller cans in the top layer of cans.

### 5.3 Marking of shipments.---

5.3.1 Ration containers.---Marking shall be in accordance with Specification OQMG 94 and as specified in Appendix I. Lettering shall be jet black.

5.3.2 Navy.---In addition to the marking specified in 5.3.1 and any special marking required by the contract or order, shipments shall be marked in accordance with the Navy Shipment Marking Handbook.

5.3.3 Marine Corps.---Shipments for the Marine Corps shall be marked as specified (see 6.1).

5.3.4 Air Force.---In addition to the marking specified in 5.3.1 and any special marking required by the contract or order, shipments for the Air Force shall be marked in accordance with Specification 94-40645.

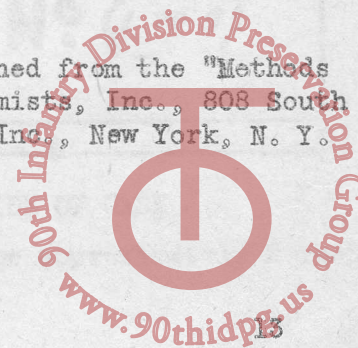
## 6. NOTES

6.1 Ordering data.---Requests, requisitions, schedules, and contracts or orders should specify the following:

- a. Title, number, and date of this specification.
- b. Whether preproduction samples are to be furnished (see 3.1).
- c. Sampling procedures required (see 4.1).
- d. Inspection procedures required (see 4.2).
- e. Marking of shipments for Marine Corps purchases (see 5.8.3).

6.2 Details and test methods specified in 4.3.1 may be obtained from "Official and Tentative Methods of Analysis" of the Association of Official Agricultural Chemists, Box 540, Benjamin Station, Washington 4, D. C.

6.3 Details of test methods specified in 4.3.2 may be obtained from the "Methods of Vitamin Assay" published for the Association of Vitamin Chemists, Inc., 808 South Wood Street, Chicago 12, Ill., by the Interscience Publishers, Inc., New York, N. Y.





6.4 Details of test methods specified in 4.3.3 may be obtained from "Book of ASTM Standards" of the American Society for Testing Materials, 1916 Race Street, Philadelphia 3, Pa., and with the publication "Testing Methods, Recommended Practices, and Specifications" of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York City, N. Y.

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 person or corporation, or conveying any right or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

Custodian:

Army - Quartermaster Corps

Other interest:

Army

Navy

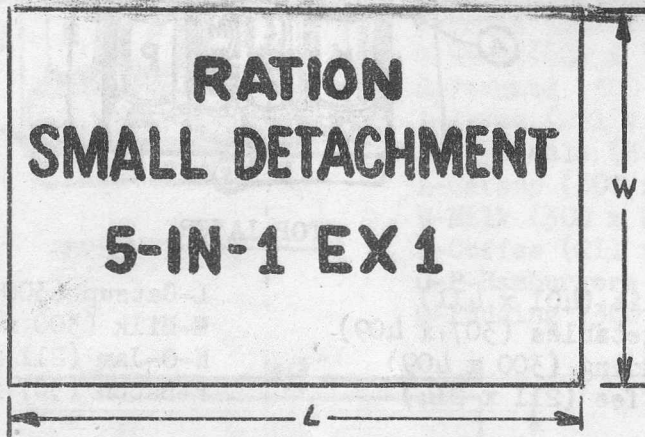
Air Force





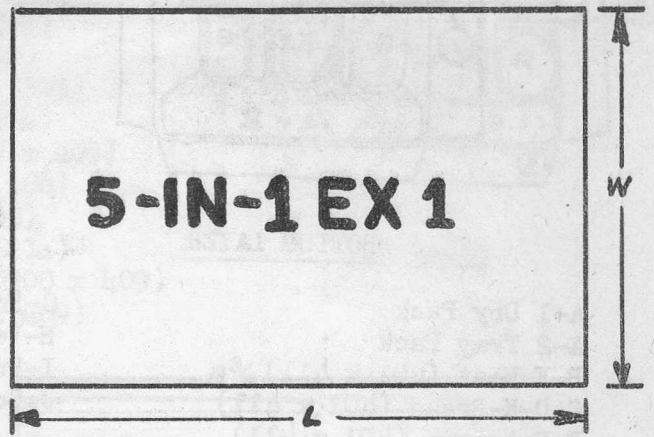
APPENDIX I

MARKINGS FOR SLEEVE AND BOX FOR  
RATION SMALL DETACHMENT, 5-IN-1 EX 1



TOP OF SLEEVE

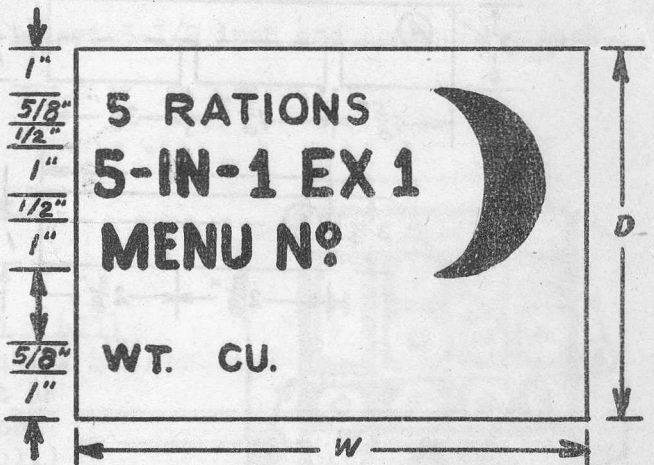
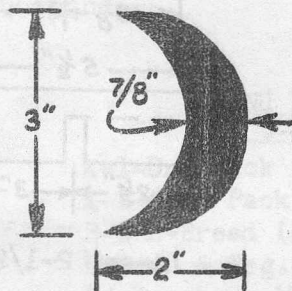
All lettering to be approximately 2 inches but not less than 1-1/2 inches high.



BOTTOM OF SLEEVE

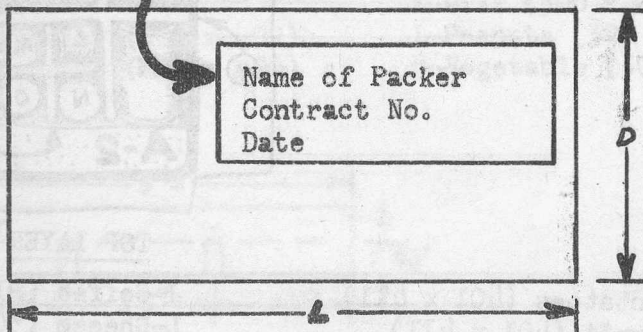
All letters to be approximately 2 inches.

Stencil or print as per sample in 42 square inches. Characters to be in largest type possible.



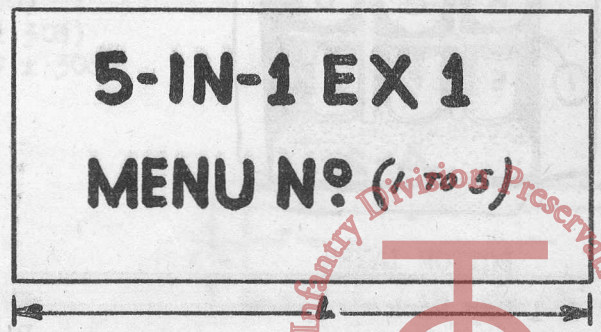
END OF SLEEVE

Crescent as per detail



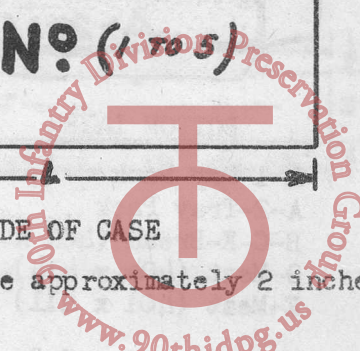
SIDE OF CASE

(Marked end of sleeve to right)

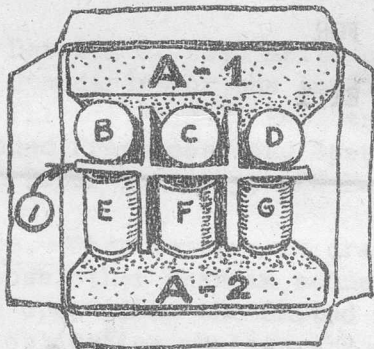


OPPOSITE SIDE OF CASE

All letters to be approximately 2 inches.

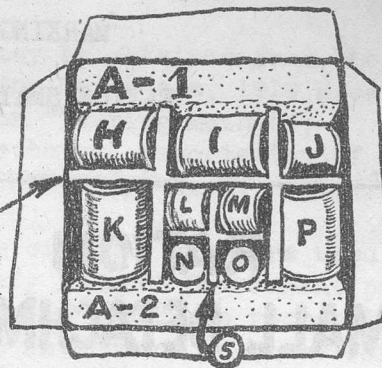






BOTTOM LAYER

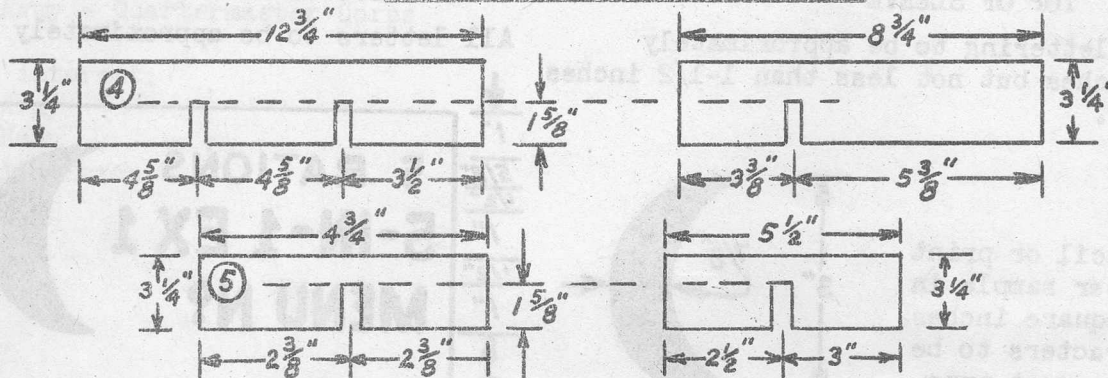
- A-1 Dry Pack
- A-2 Tray Pack
- B-F-Meat (401 x 411)
- C-D-K-Bread (401 x 411)
- E-Potatoes (401 x 411)



TOP LAYER

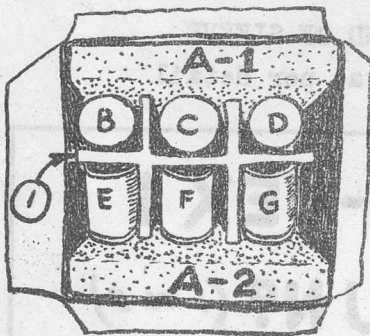
- G-Fruit (401 x 411)
- H-Vegetables (307 x 409)
- I-Pudding (300 x 409)
- J-Coffee (211 x 214)
- L-Catsup (300 x 106)
- M-Milk (300 x 200)
- N-O-Jam (211 x 304)
- P-Bacon (307 x 509)

DIVIDERS FOR MENUS NO. 2 AND 3



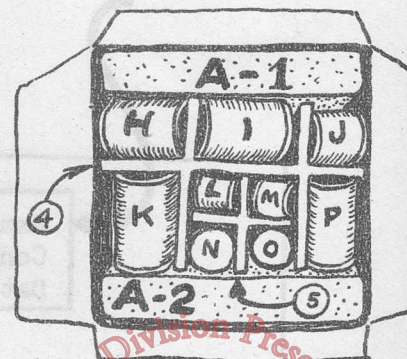
Insert 2-1/2 inch end between jam cans.

MENU No. 3



BOTTOM LAYER

- A-1-Dry Pack
- A-2-Tray Pack
- B-C-K-Bread (401 x 411)
- G-Meat (404 x 414)
- E-Meat (401 x 411)



TOP LAYER

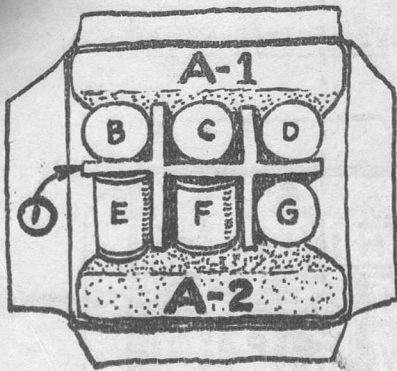
- F-Potatoes (401 x 411)
- D-Fruit (401 x 411)
- H-Vegetables (307 x 409)
- I-Pudding (300 x 409)
- J-Coffee (211 x 214)
- L-Cheese (300 x 200)
- M-Milk (300 x 200)
- N-O-Jam (211 x 304)
- P-Bacon (307 x 509)

Menus No. 2 and 3 - Divider (1) same as Menu No. 1  
 Pads between layers (2) and (3) (not indicated) same as Menu No. 1



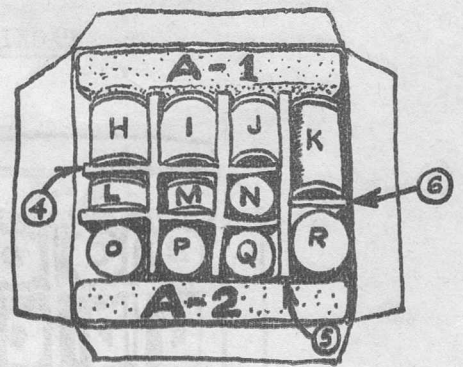


MENU NO. 4

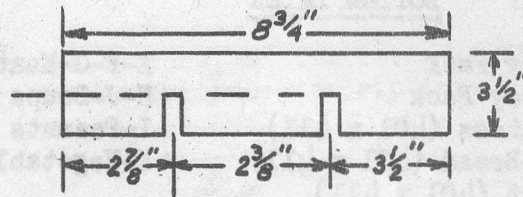
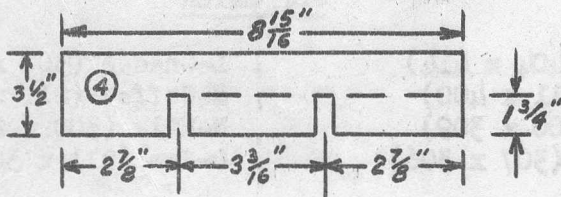


BOTTOM LAYER

- A-1-Dry Pack
- A-2-Tray Pack
- B-Meat (404 x 414)
- C-D-R-Bread (401 x 411)
- E-Potatoes (401 x 411)
- F-Fruit (401 x 411)
- G-Meat (404 x 312)
- H-Peanuts (300 x 308)
- I-J-Jam (211 x 304)
- K-Vegetable (307 x 409)
- L-Catsup (300 x 106)
- M-Milk (300 x 200)
- N-Coffee (211 x 214)
- O-P-Hamburgers (300 x 409)
- Q-Pudding (300 x 409)

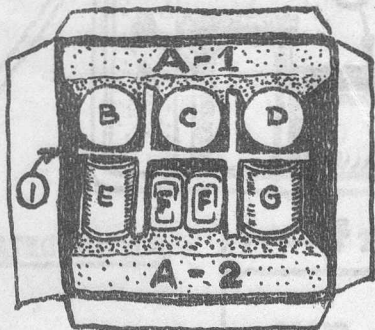


TOP LAYER



Insert 3-1/2 inch end toward dry pack.

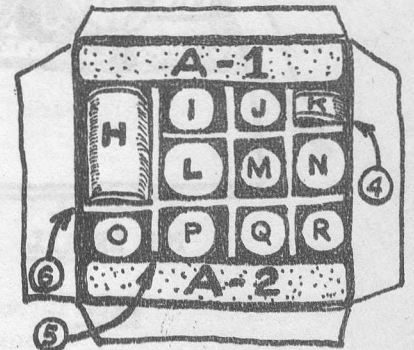
5. Pad 9 inches by 3-1/2 inches.
6. Pad 3-3/4 inches by 3-3/4 inches.



BOTTOM LAYER

MENU NO. 5

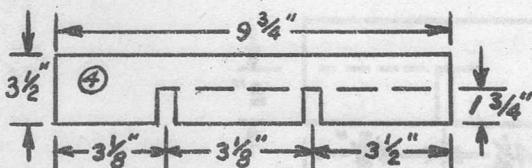
- A-1-Dry Pack
- A-2-Tray Pack
- B-C-D-Bread (401 x 411)
- E-Beef & Veg. (401 x 411)
- F\*-Luncheon Meat or Tuna or Salmon
- G-Fruit (401 x 411)
- H-Bacon (307 x 509)
- I-M-Jam (211 x 304)
- J-Coffee (211 x 214)
- K-Milk (300 x 200)
- L-Peanuts (300 x 308)
- N-Vegetable (307 x 306)



TOP LAYER

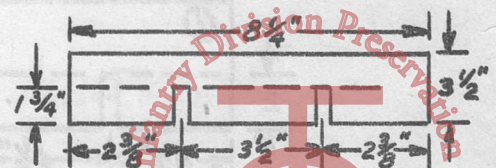
- O-Pudding (300 x 409)
- P-Q-Soups (211 x 400)

- R-Vegetables (307 x 409)
- \*See Menu Appendix.



Insert 3-1/8 inch end between IL&P

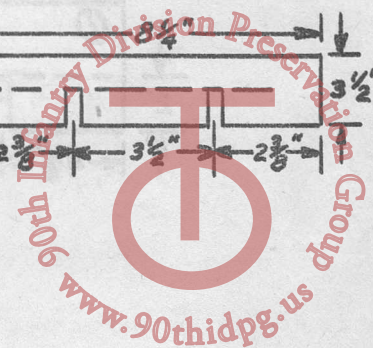
5. Pad 8-1/4 inches by 3-1/2 inches.
6. Pad 3-1/2 inches by 4 inches.



Menu No. 4 and 5 - Divider (1) same as Menu No. 1.

Pads between layers (2) and (3) (not indicated) same as Menu No. 1.

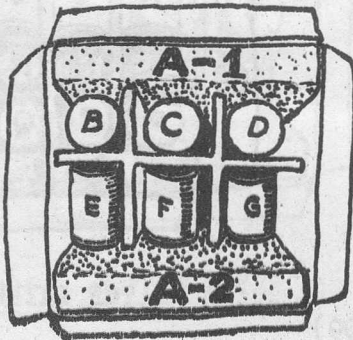
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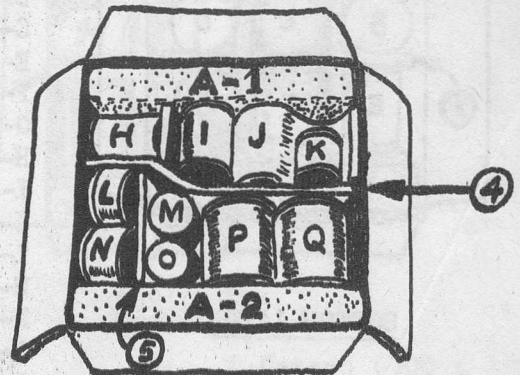


PACKING PLAN FOR RATION SMALL DETACHMENT, 5-In-1 EX 1

MENU 1



BOTTOM LAYER

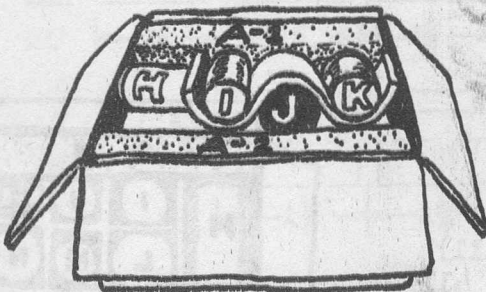


TOP LAYER

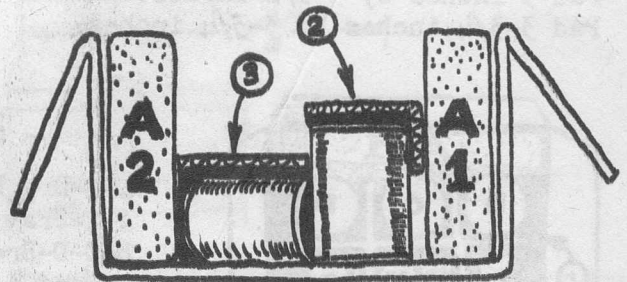
- A-1-Dry Pack
- A-2-Tray Pack
- B-Potatoes (401 x 411)
- C-P-Q-Bread (401 x 411)
- D-Fruit (401 x 411)

- E-F-G-Meat (404 x 414)
- H-J-Soups (211 x 400)
- I-Peanuts (300 x 309)
- K-Vegetable (307 x 306)

- L-Cheese (300 x 200)
- M-Coffee (211 x 214)
- N-Milk (300 x 200)
- O-Jam (211 x 304)



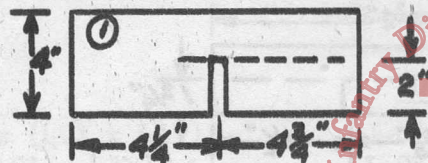
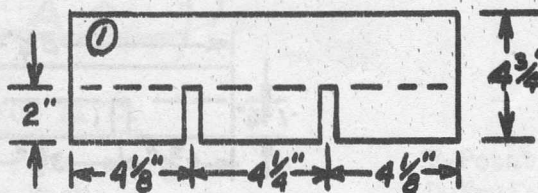
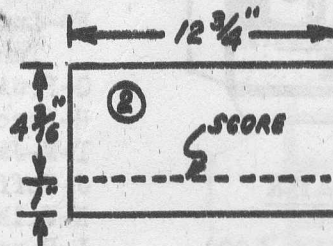
TOP DETAIL



BOTTOM DETAIL

PADS

- 3. 12-3/4 inches by 4-11/16 inches.
- 4. 13-3/8 inches by 3-1/4 inches.
- 5. 5-1/2 inches by 3-1/4 inches.
- 6. 16-1/4 inches by 4-1/4 inches.



Insert 4-1/4 inch end between upright cans.

