

INCH-POUND

A-A-55185

10 March 1993

COMMERCIAL ITEM DESCRIPTION

TROUSERS, MEN'S (WHITE)

The General Services Administration has authorized the use of this Commercial Item Description in preference to MIL-T-2423.

Abstract. This document covers the requirements for white polyester/cotton bell bottom trousers. The trousers are intended for use as part of the summer white uniform worn by enlisted male personnel of the Navy.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FSSC, 2800 South 20th Street, Philadelphia, PA 19101-8419, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8405

DISTRIBUTION STATEMENT A.

Approved for public release;  
distribution is unlimited.

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## SALIENT CHARACTERISTICS

General Description. The trousers shall be of single needle construction with a sewn on waistband, belt loops, hook and eye closure, a left over right front fly with slide fastener, two straight side seam pockets, unfinished bell bottoms and double welt back hip pockets with button and buttonhole on left hip pocket (reference figure 1). The seat seam shall be stitched with a double needle seat seamer, with an outlet in the back seat seam. All exposed edges shall have overedge stitching.

The waistband shall be made of basic material with an interlining and lining. The finished width shall be 1-3/4 ( $\pm$  1/8) inches with a topstitch 1/16 inch from waist seam through lining. The right front fly shall be lined from the top of the waistband to approximately 1/2 inch beyond inseam.

The trouser shall have 7 belt loops for sizes up to and including 37, 8 loops for size 38 and above. The belt loops shall be caught in the waistband seam (with the exception of the center back loop), bartacked 1/4 inch below the waistband seam and 1/8 ( $\pm$  1/16) from top edge of waistband. The finished belt loop shall be 5/16 to 3/8 inches wide, and 1-3/4 ( $\pm$  1/8) inches long. The placement of the belt loops shall be as follows:

- a loop in the center of the right and left fronts, according to notches on patterns,
- a loop adjacent to each side seam on back,
- a loop centered on the right and left backs,
- a loop centered on back seat seam,
- a loop positioned on right front (for sizes 38 and above) 1-1/4 to 1-3/4 inches from edge of left fly when closed.

The side seam pockets shall be bartacked above and below the opening, which shall measure 5-3/4 to 6-1/4 inches. The front of pocket opening shall be topstitched 3/16 to 1/4 inch from edge. Side pocket facing and bearer pieces shall be of basic fabric.

The double welt back hip pocket shall finish 5-1/4 ( $\pm$  1/8) inches wide, with a 1/8 to 3/16 inch welt edge. The pocket shall finish 5-3/4 ( $\pm$  1/4) inches deep, with the label centered and stitched on four sides to pocket, facing the wearer. The hip pocket on wearer's left shall have a buttonhole of the eyelet end, taper bar type, with ends tacked, worked over gimp, with a cut length of 5/8 to 3/4 inch. The buttonhole shall be vertical, in the center of the pocket with the inside edge of eyelet 3/16 to 5/16 inch below the joining seam of welt edge.

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All bartacks shall be made by machine, and shall finish 3/8 to 1/2 inch long. The back hip pockets shall have vertical bartacks at both ends. The base of the fly opening shall have a bartack at the junction of the crotch seam and fly which shall extend 1/16 to 1/8 inch beyond the crotch seam.

The finished trousers shall be pressed at the top; the legs pressed and creased in the center with the seams matching at the bottoms and knees. The inseam in the crotch may be slightly back of the outside seam.

**Basic Material.** The basic material for the trousers shall be a 50% polyester/50% combed cotton 2/1 right hand twill consisting of 2 ply warp yarn and singles filling yarn, shade white 3053. The polyester yarn shall be semi dull, with a 2.5 maximum denier, and staples approximately 1-1/2 inches in length. The cloth shall be preshrunk, bleached and treated with a crease resistant finish. The finished cloth shall conform to the requirements specified in Table I when tested as specified.

TABLE I - BASIC MATERIAL REQUIREMENTS

Characteristic	Test Method	Requirement (Minimum)
Fiber identification	<u>1/</u>	As stated above
Weight	ASTM Method D3776-85 Option C	6.8 oz./sq. yd.
Yarns per inch	ASTM Method D3775-85	102 ends/inch 50 picks/inch
Breaking strength	ASTM Method D5034-90	170 lbs. warp 85 lbs. filling
Colorfastness to light	AATCC 16-1990 Option A	"Good" <u>2/6/</u>
Colorfastness to laundering	AATCC 61-1989 test 3A	Class 4 <u>3/4/6/</u>
Dimensional stability	AATCC 96-1988 Washing method Vc Drying method D	+2.0% Max. warp & +2.0% Max. fill: <u>5/</u>
pH	ASTM Method D2165-90	5.0 - 8.5

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- 1/ Unless otherwise specified, a certificate of compliance shall be submitted and will be acceptable for the stated requirements.
- 2/ Exposure time of 20 hours
- 3/ 3 complete cycles, specimens must be dried after each cycle.
- 4/ Use 10 steel balls and multifiber test fabric. Evaluate color change of the test specimens using the AATCC Gray Scale for Color Change.
- 5/ Test piece shall measure 22 x 22 inches with 18 inch benchmarks.
- 6/ Or shall show colorfastness equal to the standard sample.

Lining. The material for the waistband lining, right fly lining, left fly interlining and pocketing shall be 2/1 twill or plain weave, bleached white. The spun yarn for the cloth shall contain from 47% to 100% polyester, and any remaining percentage cotton or rayon. When 100% polyester fabric is used, the yarn shall be either staple or texturized filament polyester. As an alternate for the left fly interlining, the basic material may be used. The finished cloth shall conform to the requirements specified in Table II when tested as specified.

TABLE II - LINING MATERIAL REQUIREMENTS

Characteristic	Test Method	Requirement (Minimum)
Fiber identification	<u>1/</u>	As stated above
Weight	ASTM Method D3776-85 Option C	4.3 oz./sq. yd. <u>2/</u>
Yarns per inch	ASTM Method D3775-85	73 ends/inch <u>2/</u> 46 picks/inch <u>2/</u>
Breaking strength	ASTM Method D5034-90	72 lbs. warp 55 lbs. filling
Dimensional stability	AATCC 96-1988 Washing method Ic Drying method D	+3.0% Max. warp & +3.0% Max. fill. <u>3/</u>
pH	ASTM Method D2165-90	5.0 - 8.5

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- 1/ Unless otherwise specified, a certificate of compliance shall be submitted and will be acceptable for the stated requirements.
- 2/ A 15% minus tolerance will be permitted for 100% polyester cloth.
- 3/ Test piece shall measure 22 x 22 inches with 18 inch benchmarks.

Waistband Interlining. The material for interlining the waistband shall be bleached or unbleached cotton buckram conforming to type II of A-A-50186. As an alternate, a nonwoven interlining conforming to type IV of A-A-50186 may be used.

Waistband Stabilizer. The material for the waistband stabilizer shall be an unbleached plain weave consisting of polyester, cotton, or any combination of these fibers. The color shall be natural, and the finished material shall conform to the requirements specified in Table III when tested as specified.

TABLE III - WAISTBAND STABILIZER REQUIREMENTS

Characteristic	Test Method	Requirement (Minimum)
Weight	ASTM Method D3776-85 Option C	6.3 oz./sq. yd.
Thickness	ASTM Method D1777-64	0.026 ± 0.006 inch
Stiffness (filling dir.)	ASTM Method D1388-64	min. 0.100 max. 0.200 inch/lbs.
Dimensional stability	AATCC 96-1988 Washing Method Ic Drying Method D	2.0% Max. warp <u>1/</u>

- 1/ Test piece shall measure full width of stabilizer and 22 inches long.

Thread. The thread used for stitching and seaming shall be a cotton covered polyester core, color white, conforming to type I of A-A-50199. Seaming and tacking shall use Ticket No. 50 or 70, 2 ply; overedging shall use Ticket No. 70, 2 ply; button sewing shall use Ticket No. 50, 2 ply. As an alternate, white cotton machine thread conforming to type I of A-A-52094 may be used. Seaming shall use Ticket No. 40 or 50, 3 ply; overedging shall use Ticket No. 70, 2 ply; button sewing shall use Ticket No. 24, 4 ply.

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Gimp. The gimp for reinforcing the hip pocket buttonhole shall be 100% cotton, bleached white, conforming to type I or II, Ticket No. 8 of A-A-50198.

Button. The button for the left hip pocket shall be melamine plastic, shade white BA, Cable No. 62031, 22 line, flat, with 4 sewing holes.

Slide Fastener. The slide fastener for closing the front fly shall be non-separating, non-reversible, with a cam lock slider, short tab pull and bottom stop. The size shall be light special, and the tape shall be cotton or a polyester/cotton blend, approximating the shade of the basic material. The chain, slider and bottom stop shall be made of brass, except for semi-automatic pin lock cover and spring, which shall be stainless steel.

Hook and Eye. The hook and eye for the trouser waistband shall be North and Judd (Hook Flex H-49 and E-50); Universal Fastener (Elite #3, #7, and #8 hook with #8 eye or #85 eye); Akim Co. (Junior Series - type JB, Slim-Slak with MB eye and Slik-Slak); Stimpson (P-536, D-4086, D-4457, D-4228) or equal. The finish shall be nickel plate, and the base metal shall be steel.

Sizes and Lengths. The trousers shall be provided in the following sizes and lengths:

Sizes: 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 42, 44, 46, 48 and 50.

Lengths: Short, Regular, Long and Extra Long

NOTE: The lengths (Short, Regular, Long, and X-Long) may be abbreviated as S, R, L and XL.

Label. Each pair of trousers shall have a white, non-woven, commercial type label which shall be affixed to the center of the right hip pocketing, facing the wearer. The inscription shall show fastness to laundering and shall contain the following information:

**NAME:**  
**SERVICE NO.:**  
**SIZE:**  
**NATIONAL STOCK NUMBER:**  
**FIBER CONTENT: 50% polyester/50% cotton**  
**CONTRACT NO:**  
**NAME OF CONTRACTOR/MANUFACTURER**

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**LAUNDERING INSTRUCTION**

**Machine Wash - Hot Water  
DO NOT USE CHLORINE BLEACH  
Tumble Dry - Medium Heat, Remove Promptly**

or

**USE NAVEDTR 414-01-45-81 - Formula II**

Note: Abbreviations for applicable lengths may be used (EXAMPLE - 34R).

Removable Size Ticket. Each trouser shall have a commercial type size ticket attached to the outside of the waistband above the left back pocket. The ticket shall be approximately 3 inches long and 1 inch high, made of a suitable plain white cardboard. The trouser size shall be printed or stamped on the upper left hand corner in black or blue ink. The lettering for the size shall be 1/4 inch in height. Abbreviations for lengths shall be allowed.

Patterns. The government shall furnish a single size pattern. The contractor is responsible for grading patterns for additional sizes. The pattern provides for a seam allowance of 1/2 inch for joining the seat seam, inseams and outseams, 7/8 inch outlet at top of seat seam, and 3/8 inch for all other seams. The government patterns shall be used to make the contractors' working patterns. The government patterns shall not be altered in any way. The working patterns may be modified to accommodate automation; however, if the working patterns are modified the design and measurements must be maintained as intended by government patterns.

Sizes and Measurements. The finished trousers shall conform to the measurements listed in Table IV. All measurements and tolerances are expressed in inches.

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TABLE IV - SIZES AND MEASUREMENTS

Size	Waist <u>1/</u>	Seat <u>2/</u>	Inseam - Unhemmed <u>3/</u>				Knee <u>4/</u>	Leg <u>5/</u> Bottom
			S	R	L	XL		
26	26	34	31	33	35-1/2	38-1/2	19-3/4	21-1/4
27	27	35	31	33	35-1/2	38-1/2	20-1/4	21-3/4
28	28	36	31	33	35-1/2	38-1/2	20-1/4	21-3/4
29	29	37	31	33	35-1/2	38-1/2	20-3/4	22-1/4
30	30	38	31	33	35-1/2	38-1/2	20-3/4	22-1/4
31	31	39	31	33	35-1/2	38-1/2	20-3/4	22-1/4
32	32	40	31	33	35-1/2	38-1/2	21-1/4	22-3/4
33	33	41	31	33	35-1/2	38-1/2	21-1/4	22-3/4
34	34	42	31	33	35-1/2	38-1/2	21-3/4	23-1/4
35	35	43	31	33	35-1/2	38-1/2	21-3/4	23-1/4
36	36	44	31	33	35-1/2	38-1/2	22	23-1/2
37	37	45	31	33	35-1/2	38-1/2	22-1/4	23-3/4
38	38	46	31	33	35-1/2	38-1/2	22-1/2	24
40	40	47	31	33	35-1/2	38-1/2	23	24-1/2
42	42	48	31	33	35-1/2	38-1/2	23	24-1/2
44	44	49	31	33	35-1/2	38-1/2	23-1/2	25
46	46	51	35	33	35-1/2	38-1/2	23-1/2	25
48	48	52	31	33	35-1/2	38-1/2	24	25-1/2
50	50	54	31	33	35-1/2	38-1/2	24	25-1/2
Tol.	$\pm 1/2$	$\pm 1$	$\pm 3/4$	$\pm 3/4$	$\pm 3/4$	$\pm 3/4$	$\pm 1/2$	$\pm 1/2$

Note: Measurements for waist and seat shall be taken with slide fastener and waistband closed. All measurements shall be taken with trousers laid out smooth and flat.

- 1/ Waist: Double the measurement across the top edge of waistband from folded edge to folded edge.
- 2/ Seat: Double the measurement taken from folded edge to folded edge one inch above fly bartack.
- 3/ Inseam: Measurement taken along inseam from crotch seam to unfinished bottom of legs.
- 4/ Knee: Double the measurement taken from folded edge to folded edge across the width of trouser leg. Location of knee measurements shall be the following distance from bottom of trousers:

Short	- 16-3/4 inches	Long	- 20 inches
Regular	- 18 inches	X-Long	- 22-1/4 inches

- 5/ Bottom: Double the measurement taken from folded edge to folded edge across unfinished bottom of leg.



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Workmanship. After completion, the finished trousers shall be thoroughly cleaned, and all loose thread, lint, and foreign matter removed.

Product Demonstration Model. When required, offerers shall submit samples of their intended production. The Product Demonstration Model will consist of units independently developed. Product Demonstration Models will be analyzed and evaluated by the government. Evaluation criteria and basis for award are contained in the solicitation. Product Demonstration Models will be retained by the government. One (1) Product Demonstration Model approved by DPSC under the resultant contract will serve as a manufacturing standard for the corresponding production items delivered under this contract. Offerers are advised that the Product Demonstration Model does not relieve the successful offerer of his responsibility to perform in accordance with the Commercial Item Description specified above.

Regulatory Requirements. The offeror/contractor is encouraged to use recovered material in accordance with Public Law 94-580 to the maximum extent practicable.

#### QUALITY ASSURANCE

Certification. The contractor shall certify that the product offered meets the salient characteristics of this description and that the product conforms to the producer's own drawings, specifications, standards and quality assurance practices. The government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for, under the provisions of the contract. Reliance on contractor QA systems shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the government for acceptance comply with all requirements of the contract.

Examination. Trouser lots shall be inspected in accordance with "Sampling Procedures and Tables for Inspection by Attributes", ANSI/ASQC Z1.4, published by the American Society for Quality Control.

Visual Examination. The trousers shall be examined for the defects listed below. The lot size shall be expressed in units of trousers. The sample unit is one trouser. The inspection level shall be III and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 0.65.

Defects. The trousers shall be examined for the defects listed in Table V.

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TABLE V - END ITEM VISUAL DEFECTS

Examination	Defect
Material and workmanship	<p>Component part full, tight, or twisted</p> <p>Hole, cut, tear, streak, color not as specified, misweave</p> <p>Permanent fold, pleat, or crease</p> <p>Measurement not as specified, an omitted part</p> <p>Seam; puckered, distorted, pleated, irregular or open, loose or tight stitch tension, broken or missing thread or stitch, needle chew</p> <p>Any twisted or caught part of trouser in any unrelated row of stitching</p> <p>Pressing omitted or not as specified</p> <p>Twill line not consistent throughout</p> <p>Button or hook and eye missing or broken, or positioned so as to cause a bulge or misaligned waistband</p>
Shade Variations	<p>Shaded part, off shade, wrong shade, or shade variation</p> <p>Thread color not as specified</p>
Cleanness	<p>Spot, stain, thread ends not trimmed</p> <p>Rancid odor</p>
Label	<p>Omitted, incorrect, illegible or misplaced</p>

**Dimensional Examination.** The finished trousers shall conform to the dimensions specified. Any dimension that is not within the established tolerance shall be classified as a defect. The sample unit shall be one trouser; the inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

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Packaging Examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5.

EXAMINATION	DEFECT
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, or method of application.
Materials	Any component missing, damaged, or not as specified.
Workmanship	Inadequate application of components such as: incomplete closure of container flaps, loose strapping, improper taping, or inadequate stapling.
Content	Number of items per container is more or less than required.  NSN shown on one or more items not as specified on shipping container.
Palletization	Length, width, or height exceeds specified maximum requirements.  Pallet type not as specified.  Load not bonded as specified.

End Item Performance Testing. The finished trousers shall conform to the requirements listed in Table I.

Preservation, Packing, and Marking. The preservation, packing, and marking shall be as specified in the contract or order.

Source of Government Documents. Copies of Military and Federal documents are available from:

Standardization Documents Order Desk  
Bldg. 4D  
700 Robbins Avenue  
Philadelphia, PA 19111-5094

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Sources of Nongovernment Documents.

ANSI/ASQC Z1.4 - Sampling Procedures and Tables For Inspection  
By Attributes

(Applications for copies should be addressed to American  
National Standards Institute, 1430 Broadway, New York, NY 10018-  
3308.)

ASTM-D 1388-64 - Standard Test Methods for Stiffness of Fabrics

ASTM-D 1777-64 - Standard Method for Measuring Thickness of  
Textile Materials

ASTM-D 2165-90 - Standard Test Method for pH of Aqueous  
Extracts of Wool and Similar Animal Fibers

ASTM-D 3775-85 - Standard Test Method for Fabric Count of Woven  
Fabric

ASTM-D 3776-85 Option C - Standard Test Methods for Mass per  
Unit Area (Weight) of Woven Fabric

ASTM-D 5034-90 - Standard Test Method for Breaking Force and  
Elongation of Textile Fabrics (Grab test)

(Applications for copies should be addressed to American  
Society For Testing and Materials, 1916 Race Street,  
Philadelphia, PA 19103.)

AATCC Method 16-1990 Option A - Colorfastness to Light

AATCC Method 61-1989 Test 3A - Colorfastness to Laundering,  
Home and Commercial: Accelerated

AATCC Method 96-1988 - Dimensional Changes in Commercial  
Laundering of Woven and Knitted Fabrics Except Wool

(Applications for copies should be addressed to American  
Association of Textile Chemists and Colorists, P.O. Box 12215,  
Research Triangle Park, N.C. 27709.)

Custodian:  
Navy - NU

Civil Agency Coordinating  
Activity:  
GSA - FSS

Preparing Activity:  
DLA - CT

Project No.  
8405-0202

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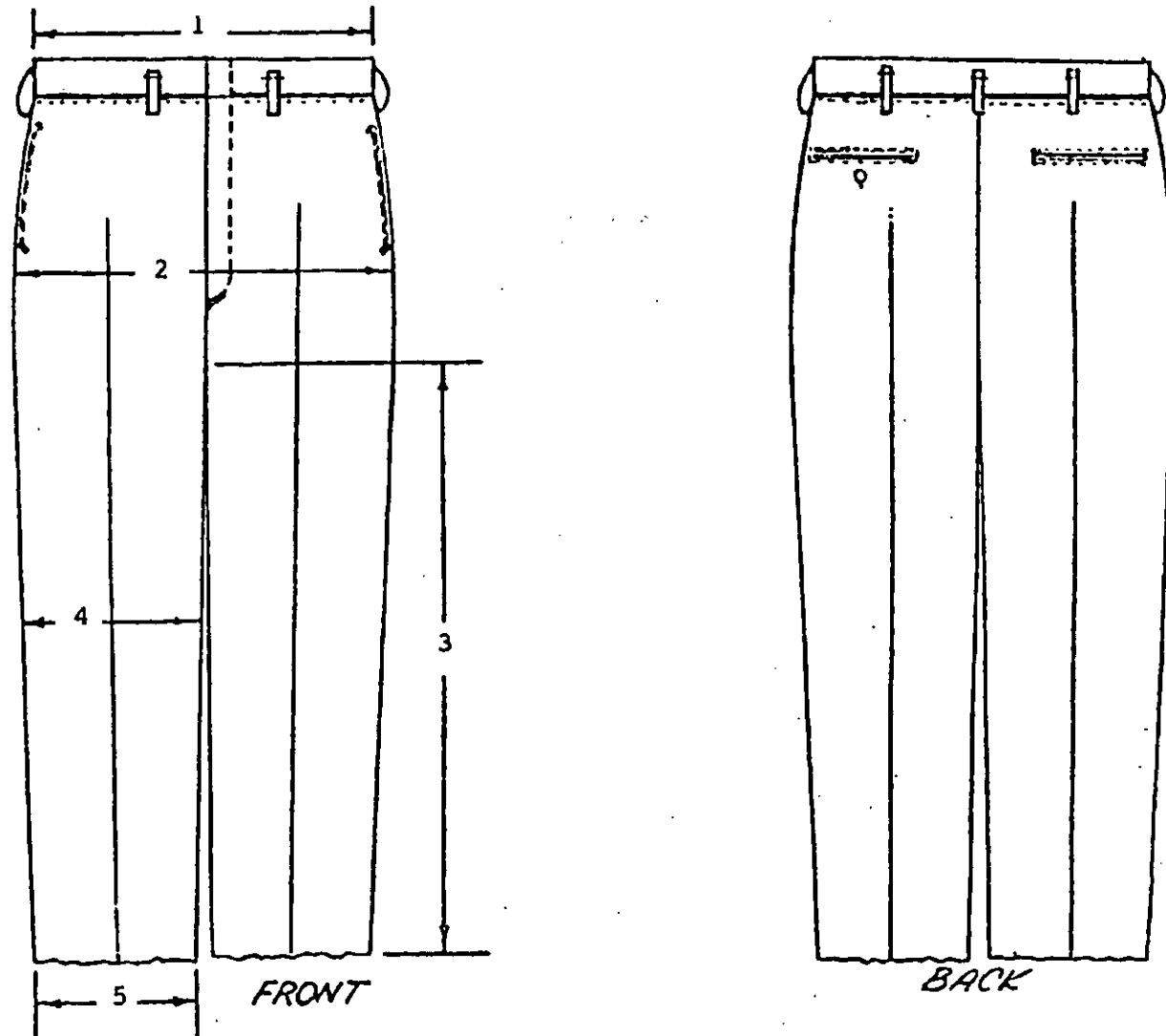


FIGURE 1 TROUSERS, MEN'S (WHITE)

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