

SS-P-186d

August 10, 1965

SUPERSEDING

Fed. Spec. SS-P-186c

May 5, 1960

FEDERAL SPECIFICATION
PENCIL, MECHANICAL,
(INCLUDING LEADS AND ERASERS)

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 graphite-, clay-, and wax lead mechanical pencils, for general writing purposes (see 3.1 and 6.1).

1.2 Classification.**1.2.1 Pencils.** (See 6.2.)

1.2.1.1 Types. Mechanical pencils covered by this specification shall be of the following types, as specified:

Type I—Propel, repel, and expel pencil.

(a) Using standard (0.046-inch) lead.

(b) Using fine (0.036-inch) lead.

(c) Using large (0.120-inch) lead.

Type II—Propel and expel pencil.

(a) Using standard (0.046-inch) lead.

(b) Using fine (0.036-inch) lead.

1.2.1.2 Classes (type II only). Type II mechanical pencils shall be of the following classes, as specified (see 3.3):

Class 1—One writing point.

Class 2—Two writing points (writing point at both ends of pencil).

1.2.1.3 Colors. Mechanical pencil barrels, except as hereinafter specified shall be black, blue, green, orange, purple, red, white, or yellow, as specified. Type II, class 2 pencils shall have a black barrel with finger grips colored to indicate color of lead. Unless otherwise specified, barrel of type I (c) pencils, designed to receive 0.120-inch

wax lead, shall be similar to the color of wax lead specified.

1.2.2 Leads. (See 3.9 and 6.2.)

1.2.2.1 Lengths and thicknesses. A tolerance of plus or minus 1/32 inch in length of leads will be permitted.

1.2.2.1.1 Type I and type II, class 1. Pencil leads shall be of the following lengths and thicknesses, as specified in the invitation for bids, contract, or order:

Length (Inches)	Thicknesses (Inch)
1-3/8	0.046 and 0.036
2	.046 and 0.036
2-3/4	.046, 0.036, and 0.120
4	.046 and 0.036

1.2.2.1.2 Type II, class 2. Length of leads furnished with type II, class 2 pencils shall be 1-3/8 inches. Thicknesses of leads shall be 0.036 inch or 0.046 inch, as specified (see 6.2).

1.2.2.2 Compositions, colors, and degrees of hardness. Pencil leads shall be of the compositions, colors, and degrees of hardness shown in table I. Leads shall be furnished in the compositions, colors, and degrees of hardness (for graphite composition), as specified. Indelible pencil leads of clay composition, medium hard, conforming to this specification, shall be furnished when specified in the invitation for bids.

FSC 7520 (Pencils)

FSC 7510 (Leads)

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TABLE I.

Composition	Color and hardness
Graphite	Black 7B
	Black 4B
	Black 2B
	Black B (No. 1)
	Black HB (No. 2)
	Black F
	Black H (No. 3)
	Black 2H (No. 4)
	Black 3H
	Black 4H
	Black 5H
Black 6H	
Clay	Blue
	Brown
	Gold
	Blue-green
	Orange
	Red
	Silver
White	
Yellow	
Wax	Black
	Blue
	Green
	Orange
	Purple
	Red
	White
Yellow	

2. APPLICABLE SPECIFICATIONS AND STANDARDS

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

Federal Specifications:

- ZZ-E-661—Erasers; Rubber and Rubber Substitute.
- PPP-B-566—Boxes, Folding, Paperboard.
- PPP-B-636—Box, Fiberboard.
- PPP-B-665—Boxes; Paperboard, Metal Stayed (Including Stay Material).
- PPP-B-676—Boxes, Set-Up, Paperboard.
- PPP-T-97—Tape; Pressure-Sensitive Adhesive, Filament Reinforced.

Federal Standards:

- Fed. Std. No. 102—Preservation, Packaging, and Packing Levels.
- Fed. Std. No. 123—Marking for Domestic Shipment (Civilian Agencies).
- Fed. Test Method Std. No. 406—Plastics: Methods of Testing.

(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 and Standards 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, D. C. 20402.

(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, Washington, D. C., Atlanta, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, Los Angeles, and Seattle, Wash.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specification:

- MIL-L-10547—Liners, Case and Sheet, Overwrap, Water-Vaporproof or Waterproof, Flexible.

Military Standards:

- MIL-STD-105—Sampling Procedures and Tables for Inspection by Attributes.
- MIL-STD-129—Marking for Shipment and Storage.
- MIL-STD-130—Identification Marking for U. S. Military Property.

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

3. REQUIREMENTS

3.1 Definitions.

- 3.1.1 *Propel, repel, and expel pencil.* A

propel, repel, and expel pencil shall be defined as one whose operating mechanism will propel the lead forward, repel (draw the lead back into the pencil), and completely expel the lead from the pencil.

3.1.2 Propel and expel pencil. A propel and expel pencil shall be defined as one whose operating mechanism will propel the lead forward only, and completely expel the lead from the pencil. The mechanism is not designed to repel or draw the lead back into the pencil, but will permit the lead to be pushed back when propelling mechanism is in retracted position.

3.2 Material. The material shall be as specified hereinafter.

3.2.1 Metal. All exposed metal parts shall have a bright finish and shall not corrode when tested as specified in 4.4.2.9.

3.3 Barrel. Barrels shall be made of metal or plastic or a combination of these materials (see 3.5.1). Plastic used shall retain its design contours without warping, crazing, cracking or discoloring in service or in storage; barrel shall be nonflammable, flame resistant, or slow burning when tested as described in 4.4.2.8. Surface of barrel shall be free from mold fins, cold bonds, delaminations, porosity, warpage, checks, cracks, chipped edges, blisters, and scratches, and shall present a smooth, uniform surface to the eye and touch. Impressions or grooves may be located on the pencil for the purpose of enhancing the appearance or facilitating finger gripping. (See 3.5.)

3.3.1 Shape and dimensions. Barrel may be round or polygonal in shape. If polygonal, the form shall consist of a combination of flats and rounds. The body of the pencil on the outside shall be of a diameter of not less than 0.312 inch nor more than 0.400 inch. This diameter requirement shall not apply to that portion of the top or bottom of the barrel which may be tapered at the election of the manufacturer.

3.3.1.1 Type II, class 2 pencils. Type II, class 2 mechanical pencils shall be designed

to accept, propel, and expel leads at both ends of the pencil (see 3.10 and 3.10.2). The pencils shall have a finger grip, between the metal point and barrel, at each end of the pencil. Finger grips and metal points shall be formed in accordance with standard commercial practice. (See 1.2.1.3 and 3.5.)

3.4 Spare-lead compartment (except type II, class 2, and 0.120-inch wax lead pencils). For each pencil accepting lead in lengths of 2-3/4 inches or less (see 1.2.2.1.1), there shall be constructed within the pencil a spare lead compartment of sufficient size to contain at least five spare leads (see 3.9). Means shall be provided in the pencil whereby spare leads shall be prevented from interfering with the operating mechanism of the pencil.

3.5 Point of pencil. Each pencil shall have one or two metal points, as applicable (see 3.3.1.1 and 3.5.1), which hold the lead firmly and in a manner which meets the requirements of this specification. Tolerances in diameter of point opening will be permitted to the extent specified for the operating mechanism described in 3.10. Point ends of barrels may be knurled for the purpose of facilitating finger gripping.

3.5.1 Wax lead pencil. The point of the colored wax 0.120-inch-lead size pencil may be of the same material as the barrel (see 3.3).

3.6 Length. The pencils shall have an overall length of not less than 4-3/4 inches nor more than 6 inches.

3.7 Clip. Each pencil shall be provided with a detachable or permanently attached, bright finished, spring pocket clip. The clip shall be made of spring steel or other material which will meet the test requirements of 4.4.2.6. The clip shall meet the corrosion test specified in 4.4.2.9 and shall be of such construction that when the clip and pencil barrel are separated by 1/64 of an inch, pressure will fall within limits to prevent accidental loss of pencil when the pencil and pocket are inverted.

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3.8 Eraser and ferrule. Each pencil, except those designed to receive 0.120-inch wax lead and type II, class 2 pencils, shall be provided with a replaceable unit consisting of an eraser and a metal cap fitted to one end of the eraser, which shall be firmly and securely seated in the ferrule or barrel. A metal sleeve or collar, or other metal eraser-holding device, will be an acceptable alternate for a metal cap provided the alternate unit meets the requirements for caps specified herein. Erasers shall be of rubber conforming to ZZ-E-661 (see 4.4.2.1). The diameter of the eraser shall be such that the eraser fits snugly within the diameter of the metal cap. There shall be not less than 7/32 inch of usable eraser extending above the top of the eraser ferrule or the end of the pencil barrel if so designed when the metal cap of the eraser rests firmly on the seat. Worn erasers with sufficient remaining length to be gripped with the fingers, and metal cap, shall be capable of being easily removed and replaced without a mechanical device. Metal caps shall not come loose from erasers or stick in the ferrule or barrel when replacing the eraser. Ferrules shall be firmly affixed to the pencil for the purpose of holding the eraser and metal cap. (See 6.2.1.)

3.9 Leads. The diameter of 0.046-inch leads shall be not less than 0.0455 inch nor more than 0.0475 inch. The diameter of 0.036-inch leads shall be not less than 0.0350 inch nor more than 0.0370 inch. The diameter of the 0.120-inch wax leads shall be not less than 0.115 inch nor more than 0.120 inch. Leads shall be straight to within such limits as are necessary to prevent breakage when inserted in the barrel. Unless otherwise specified herein or in the invitation for bids, contract, or order, all pencils shall be delivered filled with a No. HB black lead. Pencils designed for lead in lengths of 2-3/4 inches or less shall be furnished with at least five leads in the spare lead compartment (see 3.4).

3.10 Operating mechanism of pencils. The operating mechanism of pencils shall be

made of metal or a combination of metal and plastic. The mechanism shall have sufficient gripping strength to hold lead of the specified diameter firmly and securely so that the lead will not turn or wobble during use and so that the difference between initial and final lead projection shall be not more than 1/16 inch when subjected to the test specified in 4.4.2.4.1.2 before or after test specified in 4.4.2.5. The clutch and spiral type mechanisms as specified in 3.10.1 and 3.10.2 shall be constructed to permit ready insertion and ejection of lead without crumbling, chipping or breaking of lead and either mechanism shall function properly when subjected to the operating test specified in 4.4.2.4.1.1 before or after test specified in 4.4.2.5, as applicable. Movement of the lead shall be accomplished without undue effort by turning the eraser holder or point(s) of the pencil. The mechanism shall hold lead firmly and securely at the point of writing pressure from the time of insertion of a new lead until the lead has been used to at least the last 1/4 inch of its length. Tolerances in the operating mechanism will be permitted only to an extent sufficient to permit the lead to be propelled, repelled, and expelled, as applicable, through the point of the pencil.

3.10.1 Type I, propel, repel, and expel pencil. The mechanism shall be equipped with a flexible and resilient clutch, screw-type, and shall accept, propel, repel, and completely expel the lead from the pencil (see 3.1.1).

3.10.2 Type II, propel and expel pencil. The mechanism shall accept, propel, and completely expel the lead from the pencil (see 3.1.2).

3.10.2.1 Class 1, one writing point. Class 1 pencil mechanism shall be of the open spiral type with a split bushing or insert device for fitting the tip to the barrel.

3.10.2.2 Class 2, two writing points. Class 2 pencil mechanism shall be of the closed spiral type with a device (commonly referred to as "friction pads or wings") for fitting the tip to the barrel.

3.11 Wax leads.

3.11.1 Breaking strength of lead. When the square cut, unsharpened tip of lead extends 0.180 inch from the mechanical holder, the marking medium shall show an average breaking strength of not less than 565 grams with no single break of less than 500 grams when tested under the atmospheric conditions and in the manner specified in 4.4.2.7.1. (See 3.9.)

3.11.2 Softening point of marking medium. The markings shall not run or become obliterated, and colors shall remain clearly discernible, when wax leads are tested as specified in 4.4.2.7.2.

3.11.3 Marking characteristics. The wax leads shall leave a clearly visible mark of good color, continuous and free from chips and crumbs, and the writing on all surfaces shall be clearly legible when tested as specified in 4.4.2.7.3, except that a slight chipping and crumbling of lead and a slight break in the continuity of markings at any angle, will be permitted.

3.12 Impact. Pencils shall not show any deformation or impairment in serviceability after being subjected to the test requirement specified in 4.4.2.2.

3.13 Strength and construction of pencils. The pencils shall meet the test requirements of 4.4.2.3.

3.14 Identification marking.

3.14.1 Civil agencies. The manufacturer's name or trademark shall be shown on each pencil, either on the pencil or on the clip if it is of a permanently attached type. Each pencil shall be legibly marked "U. S. Government" unless other one-line lettering is specified in the invitation for bids, contract, or order. (See 6.2.)

3.14.2 Military agencies. Marking for identification shall be in accordance with MIL-STD-130. Markings required shall be manufacturer's identification and "U. S."

3.15 Workmanship. Workmanship shall conform to normal commercial practice, and

pencils, leads, and erasers, as applicable, shall be suitable for the purpose intended. Pencils, leads, and erasers shall be free from any defects which affect the appearance and which might affect the serviceability. (See table II.)

4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements. (See 6.2.)

4.2 Lot. A lot shall consist of all mechanical pencils of the same type and class, as applicable, or all leads of the same composition, color and hardness, as applicable, offered for delivery at one time.

4.3 Sampling.

4.3.1 For visual and dimensional examination. Random samples of mechanical pencils, leads and erasers, as applicable, shall be taken from each lot in accordance with MIL-STD-105.

4.3.2 For tests. Samples of mechanical pencils, erasers, and leads shall be selected for tests in accordance with inspection level S-2 of MIL-STD-105.

4.4 Examination and tests of pencils, leads, and erasers.

4.4.1 Examination.

4.4.1.1 Pencils, leads, and erasers. Samples of pencils, leads, and erasers taken in accordance with 4.3.1 shall be examined in accordance with the following classification of defects, acceptable quality level (AQL) 4.0 percent defective:

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Mechanical pencils

Defect	Applicable reference paragraph
Material not as specified	3.2 thru 8.10
Type and class not as specified	3.10
Color not as specified	1.2.1.3, 3.3
Surface imperfections	3.3, 3.15
Dimensions not as specified	3.3.1, 3.6, 3.8, 3.9
Spare lead compartment missing	3.4, 3.9
Performance and ease of removal and replacement of erasers not as specified	3.8

Leads

Defect	Applicable reference paragraph
Dimensions not as specified	1.2.2.1
Composition not as specified	1.2.2.2
Color not as specified	1.2.2.2
Hardness not as specified	1.2.2.2

4.4.1.2 *Preparation for delivery.* An inspection shall be made to determine compliance with the packaging, packing, and marking requirements of section 5. Defects shall be scored in accordance with table II. For examination of contents the sample unit shall be one shipping container fully prepared for delivery selected just prior to the closing operations. Defects of closure shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be II and the AQL, 4.0 defects per 100 units.

TABLE II. *Classification of preparation for delivery defects*

Examine	Defects
Markings (exterior and interior).	Omitted; incorrect; illegible; or improper size, location, sequence, or method of application.
Materials.	Any component missing or damaged.
Workmanship.	Inadequate application of components such as incomplete closure of container flaps, loose strapping, inadequate stapling. Bulging or distortion of container.

4.4.2 *Tests.* The following tests shall be conducted on samples of pencils, erasers, and leads taken as specified in 4.3.2 in accordance with an AQL of 2.5 percent defective.

4.4.2.1 *Erasers.* Tests for quality and performance requirements of rubber shall be made in accordance with ZZ-E-661.

4.4.2.2 *Impact.* Pencils shall be dropped three times from a height of 4 feet to a rigid steel plate so that they land on their sides. After the third drop, the pencils shall be examined for compliance with 3.12.

4.4.2.3 *Strength and construction.* Each pencil shall be supported horizontally on flat steel blocks whose spacing is 1/8 inch less than the length of the pencil not including eraser. A perpendicular force of 6 pounds shall be applied through a 1/4-inch steel edge, located at the center of the free span. After three applications of load without moving the pencil, it shall operate as well and present as good an appearance as in its original state.

4.4.2.4 *Operation and rigidity of mechanism.*

4.4.2.4.1 *Before accelerated service test of 4.4.2.5.*

4.4.2.4.1.1 *Operation.* After being subjected to inspection and tests as specified above or to test of 4.4.2.5, as applicable, the pencils shall have leads expelled and new leads inserted, after which an 8-inch line shall be written. This shall be repeated for 30 times, of which 15 shall be with black HB leads and 15 with red clay leads, as applicable. Pencils and lines shall be examined for evidence of impairment of function of pencils.

4.4.2.4.1.2 *Rigidity of mechanism.* Take a black graphite lead of the specified length for use in the pencil being tested and 4H degree in hardness or harder, break off $1 \pm 1/16$ inch and insert into the barrel with 1/8 or 3/16 inch of lead projecting from the point. If the writing end of the lead is not smooth, draw the lead across a sheet of paper and remove any sharp or rough edges.

Hold the barrel of the pencil approximately vertical and press the lead against a platform scale with a pressure of 5 pounds \pm 1/8 pound for 0.046-inch-diameter lead and a pressure of 3-1/8 pounds \pm 1/8 pound for 0.036-inch-diameter lead. The pressure shall be transmitted to the lead through that part of the barrel between the point section and the bottom of the eraser ferrule or holder. The pressure shall be applied for at least 1/2 minute and then the pencil shall be removed from the platform scale. (See 3.10.)

4.4.2.4.2 After accelerated service test of 4.4.2.5. Upon completion of test specified in 4.4.2.5, insert erasers in those pencils from which removed and again subject all the pencils to the test procedures of 4.4.2.4.1.1 and 4.4.2.4.1.2. Re-examine during and at completion of tests for compliance with 3.10.

4.4.2.5 Accelerated service test. When tests of 4.4.2.4 have been completed, remove erasers and leads from half of the pencils tested. Take these pencils and the remaining pencils tested and subject all to an accelerated service test in accordance with procedure II, method No. 6011 of Fed. Test Method Std. No. 406. (See 4.4.2.4.2.)

4.4.2.6 Clip performance test. Slide clip over stiff material 1/8 inch in thickness. Repeat for a total of 25 operations. Then slide the clip and pencil over stiff material 1/64 inch in thickness and invert. Pencil shall remain clipped to the material.

4.4.2.7 Wax lead tests.

4.4.2.7.1 Breaking strength. Wax lead and mechanical holder in accordance with this specification (see 3.11.1), shall be placed in a rigid-holding block set to maintain a constant angle of 45° between the pencil and the platform (see fig. 1). The pencil shall extend beyond the underside of the block 1-1/4 to 1-1/2 inches, measured along the pencil to the end of the prepared end. The scale platform shall be smooth and shall offer no resistance to the point moving across its surface. Pressure shall be applied by pushing the rod, which holds the block, down gradually and uniformly in order to avoid

variations and shock. Readings shall be taken at the instant of breaking, provided the breaking point is definite. A slow, mushy deformation or crumbling shall be considered as a break with the reading to be taken as nearly as possible to the point where this type of failure begins. The breaking strength shall be based on the average of all tests made. Not less than three pencils of a color of lead shall be used and each pencil shall be subjected to not less than four tests. All leads being tested and all pencils being used as holding devices shall be held at a temperature of not less than 23° \pm 1.1°C. (73.5° \pm 2°F.), relative humidity 50 \pm 4 percent, for 12 hours preceding the test.

4.4.2.7.2 Softening point of marking medium. Inscribe letters or numbers with sample pencil on the sides of a glass beaker and place beaker in an oven held at a temperature of 300° \pm 5°F. for 1 hour. After removal and cooling to room temperature, examine markings for compliance with 3.11.2.

4.4.2.7.3 Marking characteristics of wax leads. When wax leads have been subjected to test of 4.4.2.7.2, they shall be tested for writing on the following glossy-surface materials: Glass, aluminum, including aluminum foil; cellophane and cellulose acetate adhesive tape, and glazed white porcelain. Straight and zigzag lines, consisting of short straight lines forming sharp angles, shall be drawn on each of the specified materials at both slow and fast writing speeds. The markings shall then be examined for compliance with 3.11.3.

4.4.2.8 Flammability test for plastic. A draft shield shall be used to reduce air current effects. Hold the plastic specimen horizontally within the shield above a Bunsen burner having a 1- to 1-1/4-inch blue flame just touching the end of the barrel until the specimen ignites, or for a period of not over 30 seconds. Remove the flame. If the specimen will not support combustion, it is nonflammable. If the specimen burns when in contact with the flame but will not con-

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TABLE III. Unit and intermediate quantities of leads

Length (inches)	0.036 Diameter				0.046 Diameter				0.120 Diameter	
	Graphite lead		Clay or wax lead (colored)		Graphite lead		Clay or wax-lead (colored)		Clay or wax-lead (colored)	
	Unit	Int.	Unit	Int.	Unit	Int.	Unit	Int.	Unit	Int.
1-3/8	24	12	12	12	24	12	12	12	—	—
	—	—	72	12	25	12	72	12	—	—
2	12	12	8	12	12	12	72	12	—	—
	24	12	72	12	—	—	—	—	—	—
2-3/4	12	12	8	12	12	—	8	12	4	—
	8	12	8	12	6	12	6	12	—	—
4	12	12	—	—	12	12	12	12	—	—
	—	—	—	—	—	—	72	12	—	—

tinue to burn when the flame is removed, it is flame resistant. If the specimen continues to burn at a rate of less than 2.5 inches per minute, it shall be considered as slow burning. If the specimen bursts into flame immediately, it is to be considered as not meeting the requirements of this specification.

4.4.2.9 Corrosion test. Metal parts, as applicable, shall be placed in a boiling 10 percent (by weight) aqueous solution of sodium chloride for a period of 15 minutes. Metal parts upon being removed from the solution shall be immediately immersed for at least 1 hour in 10 percent (by weight) aqueous solution of sodium chloride at room temperature. They shall then be removed from this solution and, without having the adhering liquid wiped off, allowed to dry for 24 hours at room temperature and then wiped free of any residue and examined for presence of corrosion.

5. PREPARATION FOR DELIVERY

For civil agency procurement the definitions and application of levels of packaging and packing shall be in accordance with Fed. Std. No. 102.

5.1 Packaging. Packaging shall be level A, B, or C, as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Unit packaging.

5.1.1.1.1 Pencils. Twelve pencils of like description shall be packaged in a close-fitting box conforming to PPP-B-566, style II; PPP-B-665, style B; or PPP-B-676, type II.

5.1.1.1.2 Leads. Leads of like description shall be packaged in quantities as specified in table III in a close-fitting paperboard tube or box. The box shall conform to PPP-B-566, PPP-B-665, or PPP-B-676.

5.1.1.2 Intermediate packaging.

5.1.1.2.1 Pencils. Six unit packages of pencils of like description shall be packaged in a close-fitting box conforming to PPP-B-566, PPP-B-665, or PPP-B-676.

5.1.1.2.2 Leads. Six unit packages of leads of like description shall be packaged in quantities as specified in table III in a close-fitting box conforming to PPP-B-566, PPP-B-665, or PPP-B-676.

5.1.1.2.3 Closure. Boxes specified in 5.1.1.1.1 through 5.1.1.2.2 shall be closed in accordance with the applicable box specification or appendix thereto.

5.1.2 Level B. The pencils and leads shall be packaged as specified in 5.1.1.

5.1.3 Level C. The leads shall be packaged in accordance with the supplier's normal commercial practice.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.2.1 *Level A.* Leads or pencils of like description shall be packed in a close-fitting box conforming to PPP-B-636, class—weather-resistant, style FTC with partial telescope cover. The box shall be closed and strapped in accordance with the appendix to the box specification. The gross weight shall not exceed the weight limitations of the box specification.

5.2.2 *Level B.*

5.2.2.1 *Pencils.* Pencils of like description, packaged as specified in 5.1.1, shall be packed in a close-fitting box conforming to PPP-B-636, class—domestic, style RSC with partial telescope cover.

5.2.2.2 *Leads.* Leads of like description, packaged as specified in 5.1.1, shall be packed in a close-fitting box conforming to PPP-B-636, class—domestic, style RSC with partial telescope cover.

5.2.2.3 *Closure.* Boxes in accordance with PPP-B-636 (5.2.2.1 and 5.2.2.2) shall be closed in accordance with the appendix to the box specification.

5.2.3 *Level C.* The pencils and leads shall be packed in accordance with normal commercial practice and in a manner to insure carrier acceptance and safe delivery to destination in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking (pencils and leads).

5.3.1 *Civil agencies.* In addition to any special marking required by the contract or order, interior packages and exterior shipping containers shall be marked in accordance with Fed. Std. No. 123, including specification classification such as type, class, color, etc.

5.3.2 *Military activities.* In addition to any special marking required by the contract or order, interior packages and exterior ship-

ping containers shall be marked in accordance with MIL-STD-129.

6. NOTES

6.1 *Intended use.* The pencils and leads conforming to this specification are intended for general writing except the 0.120-inch lead size is intended primarily for colored wax lead to be used for marking on glazed and other glossy-surface materials, including apparatus subject to oven or Bunsen burner heat.

6.2 *Ordering data.* Purchasers should specify the type of pencil, class of type II pencil; and color of pencils required, except type II, class 2, and type I (c). Leads should be specified by the length (except type II, class 2), thickness, composition, color, and degree of hardness (for graphite composition). Indelible leads should be specified when required, together with length and thickness desired. Purchasers should also specify arrangement for inspection and inspection facilities; if different than as indicated in 4.1; levels of packaging and packing, any special marking for shipment required, and should exercise any desired options offered herein. (See 1.2 through 1.2.2.2, 3.3, 3.9, 3.14, 5.1, 5.2, 5.3, and 6.3.)

6.2.1 *Spare erasers.* In requirements for spare erasers for pencils, purchasing officers should identify the pencils with which they are to be used.

6.3 *Military standards.* Items procured under this specification for military use are to be limited to the variety shown on the applicable military standards. Personnel of the military departments are required to refer to these documents for guidance.

6.4 *Transportation data.* Transportation descriptions and minimum weights applicable to this commodity are:

Rail:

Pencils

Pencils, not otherwise indexed by name.
Carload minimum weight 24,000

SS-P-186d

pounds, subject to Rule 34, Uniform Freight Classification.

Leads

Pencil leads.

Carload minimum weight 30,000 pounds.

Erasers

Erasers, not otherwise indexed by name.

Carload minimum weight 30,000 pounds.

Motor:

Pencils

Pencils, not otherwise indexed.

Motor volume minimum weight 24,000 pounds.

Leads

Pencil leads.

Motor volume minimum weight 30,000 pounds.

Erasers

Erasers, not otherwise indexed.

Motor volume minimum weight 30,000 pounds.

6.5 This specification covers only the end items required by the Federal Government. It is not intended to include all of the types, etc., which are commercially available.

DOD coordination has been waived.

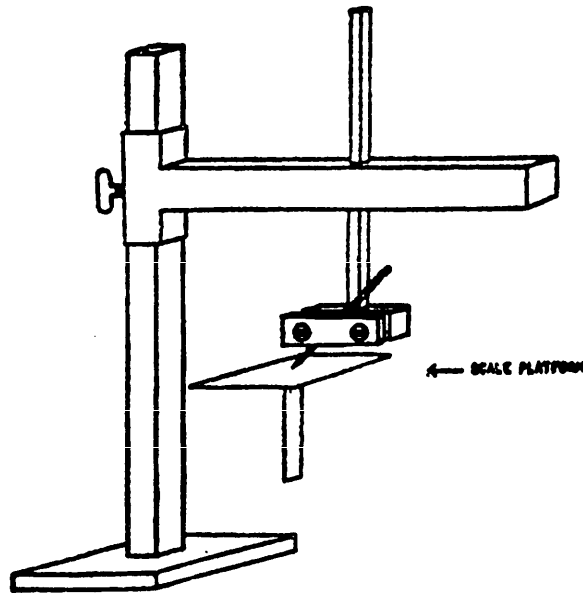


FIGURE 1.—Holder.
(See 4.4.2.7.1)

Copies of this specification may be purchased for 10 cents each.