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WAR DEPARTMENT

TECHNICAL MANUAL

ORDNANCE MAINTENANCE

SETTERS, FUZE, BRACKET, M1916 SERIES; SETTERS, FUZE, HAND, M1912 AND M1913 SERIES

July 1, 1941

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SETTERS, FUZE, BRACKET, M1916 SERIES; SETTERS, FUZE, HAND, M1912 AND M1913 SERIES

Prepared under direction of the
Chief of Ordnance

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SECTION I

GENERAL

	Paragraph
Purpose	1
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1. Purpose.—This manual is published primarily for the information and guidance of ordnance maintenance personnel.

2. Scope.—This manual supplements the technical manuals which are prepared for the using arms. It contains descriptive matter and illustrations sufficient to provide a general working knowledge of these fuze setters, and detailed instructions for maintenance and repair. Figures which accompany the manual show the placement and method of fastening of each of the component parts of the instruments. Tabulated data pertaining to the instruments are included.

3. References.—The appendix lists all Standard Nomenclature Lists and other publications for the equipment described herein.

4. Description.—*a.* A fuze is a mechanical device used with a projectile to detonate it at the time and under the circumstances desired. Fuzes may be classified in two principal types: those which function by time action a certain number of seconds after firing, and those which function as the result of impact of the fuze or the projectile with a resistant object.

b. Adjustments are necessary on time fuzes in order to control their action at various distances from the gun. These settings are made by turning a graduated ring on the fuze body so that an index line points to the proper graduation of the movable ring.

c. Fuze setters are instruments used by gunners for setting time fuzes. These instruments are first adjusted to revolve the movable fuze ring the necessary amount. The fuze setters are then applied to the fuze and with the proper rotation as described in sections II, III, and IV, the fuzes will be set accurately and quickly.

d. The fuze setters contain two rings which are sloped internally to fit the contour of the fuze. These rings carry scales which are graduated to correspond to the fuze, ammunition, and matériel in use. The rings and their graduated scales may be turned to the desired settings by means of manually operated worm mechanisms. One ring (the corrector ring) has a slot which engages the pin on the movable time train ring of the fuze. The other ring (worm wheel or range ring) carries a projecting stop which permits rotation between the fuze

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and fuze setter until the stop encounters the fixed pin on the fuze body, after which further rotation is prevented. During rotation, the movable time train ring of the fuze is revolved. When the final position is reached, the fuze setting corresponds to that set on the fuze setter scales.

5. Application.—The fuze setters described in this manual are adaptable for use with different types of ammunition and matériel by use of different sets of scales. Fuze setter model designations corresponding to specific applications by the Field Artillery are listed below:

Setter, fuze, bracket, M1916:
For 21-second combination M1907 fuze, with ammunition for 75-mm guns, M1897, M1916 and modifications, and M1917.

NOTE.—For 75-mm gun carriage, M2A2, the fuze setter is supplied complete with anchor.

Setter, fuze, bracket, M1916A1, with base:
For 21-second Mark III fuze, on 75-mm AA and 3-inch AA ammunition for all AA guns of these calibers.

Setter, fuze, bracket, M1916A2, with anchor:
For 21-second combination M1907 fuze with practice ammunition for 75-mm howitzer carriages, M2A1, M3, and M3A1.

Setter, fuze, hand, M1912:
For 21-second combination M1907 fuze with ammunition for 75-mm guns, M1897, M1916 and modifications, and M1917.

Setter, fuze, hand, M1912A1:
For 21-second combination M1907 fuze with ammunition for 2.95-inch mountain gun (Vickers).

Setter, fuze, hand, M1912A4:
For 21-second combination M1907 fuze with ammunition for 75-mm pack howitzers, M1 and M1A1.

Setter, fuze, hand, M1913:
For 45-second combination M1907 fuze with ammunition for 155-mm guns, M1917 and M1918MI.

Setter, fuze, hand, M1913A1:
For 45-second combination M1907 fuze with ammunition for 155-mm howitzers, M1917 and M1918.

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SECTION II

SETTERS, FUZE, BRACKET, M1916 SERIES

Paragraph
Identification 6
Operation 7
Inspection 8
Maintenance and repair 9
Accessories 10

6. Identification.—*a.* Assembled and sectioned views of the bracket fuze setter, M1916, are shown in figures 1, 2, and 3.

b. The following table lists the piece marks and distinguishing markings of the range or time rings and corrector scales used in the different models:

		Range or time ring (scale)	Corrector scale
M1916	Piece mark	B129521	91E
	Markings	75-MM GUN, M1916–M1917. 21-SEC. FUZE. REVERSE 75-MM GUN, M1897, FRENCH.	(None)
	Graduations	0–6600 yds	0–60, arrow on 30
M1916A1	Piece mark	B704	B706
	Markings	21-SEC. A. A. TIME FUZE MARK III.	A. A. TIME FUZE
	Graduations	0–21.2 secs	0–60, arrow on 30
M1916A2	Piece mark	C56526	91E
	Markings	75-MM PACK HOW. M1 SHRAP. M37—21-SEC. FUZE.	(None)
	Graduations	0–5600 yds	0–60, arrow on 30

7. Operation.—*a.* Set the range or time ring by means of the range worm crank handle, 88E, to the desired range. Set the corrector scale by means of the corrector worm knob, 88G. If no correction is desired, make this setting at the "30" graduation. To leave the fuze in the "safe"setting, set the range or time ring to the "S" mark and set the corrector scale to the "normal" (30) graduation (marked by arrow).

b. Insert the round, fuze foremost, into the setter without regard to the relative position of the fuze and fuze setter parts.

c. With the round pressed firmly into the fuze setter, rotate the round manually in a *clockwise* direction, as indicated by the arrow on the housing cover, until the fuze pin is felt to enter the slot in the corrector ring. Continue to turn the projectile in a clockwise direc-

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tion until the stop, 88F, strikes the fixed fuze pin, which indicates that the fuze setting operation has been completed.

d. When ready for use, withdraw the round carefully so as not to rotate or tap it against the fuze setter.

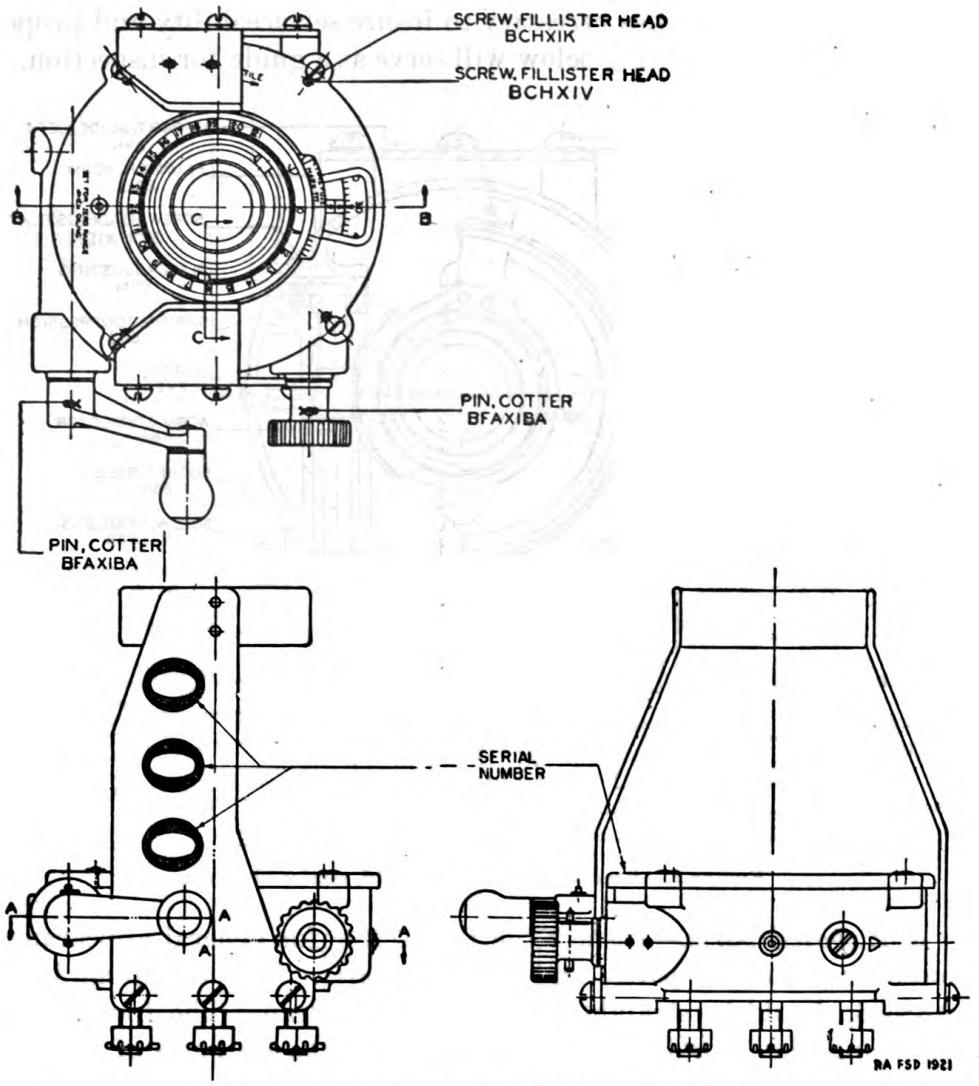


FIGURE 1.—Bracket fuze setter, M1916, assembled views.

e. The round should be left in the setter until ready for use. If necessary there is no objection to changing the setting of either the corrector scale or the range or time ring with the round in place. After either of these settings is changed, care should be taken to turn again the round clockwise as far as it will go, as in the original setting operation, to insure that the fuze pin strikes the stop.

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Caution.—Rotate the round only in a clockwise direction. Incorrect settings and loosening of the fuze from the projectile may result from failure to follow these instructions.

8. Inspection.—Inspection is for the purpose of determining the condition of the instrument, whether repairs or adjustments are required, and the remedies necessary to insure serviceability and proper functioning. The listing below will serve as a guide for inspection.

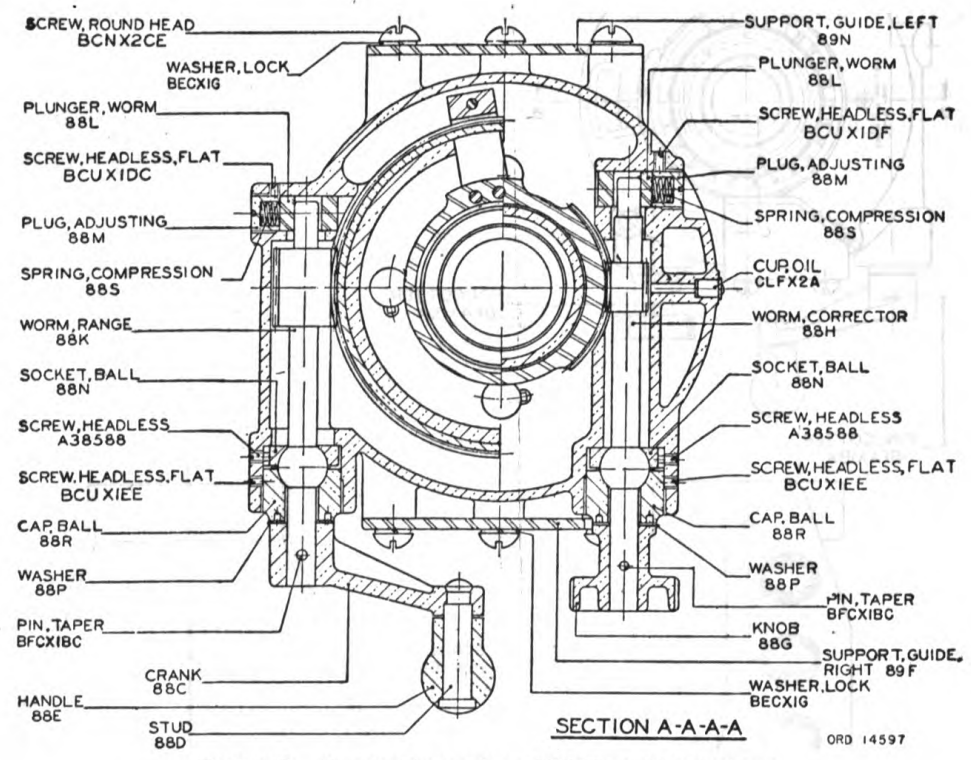


FIGURE 2.—Bracket fuze setter, M1916, sectioned views.

a. Exposed parts.—Inspect the fuze setter for general appearance, loose or damaged parts, and missing parts. The clamping bolts, A38596, should be straight and the threads clean. The four slotted clamping nuts, BBGX1C, and their cotter pins are parts of the fuze setter and should be assembled therewith. The two oil cups, CLFX2A, should be in place and operate properly.

b. Guide, assembly.—Inspect the guide for bending or other damage which might make it difficult to insert the projectile. Replacement of the entire guide, assembly, will be required in case of such damage. The serial number on the guide support should coincide with that on the housing cover, 91B.

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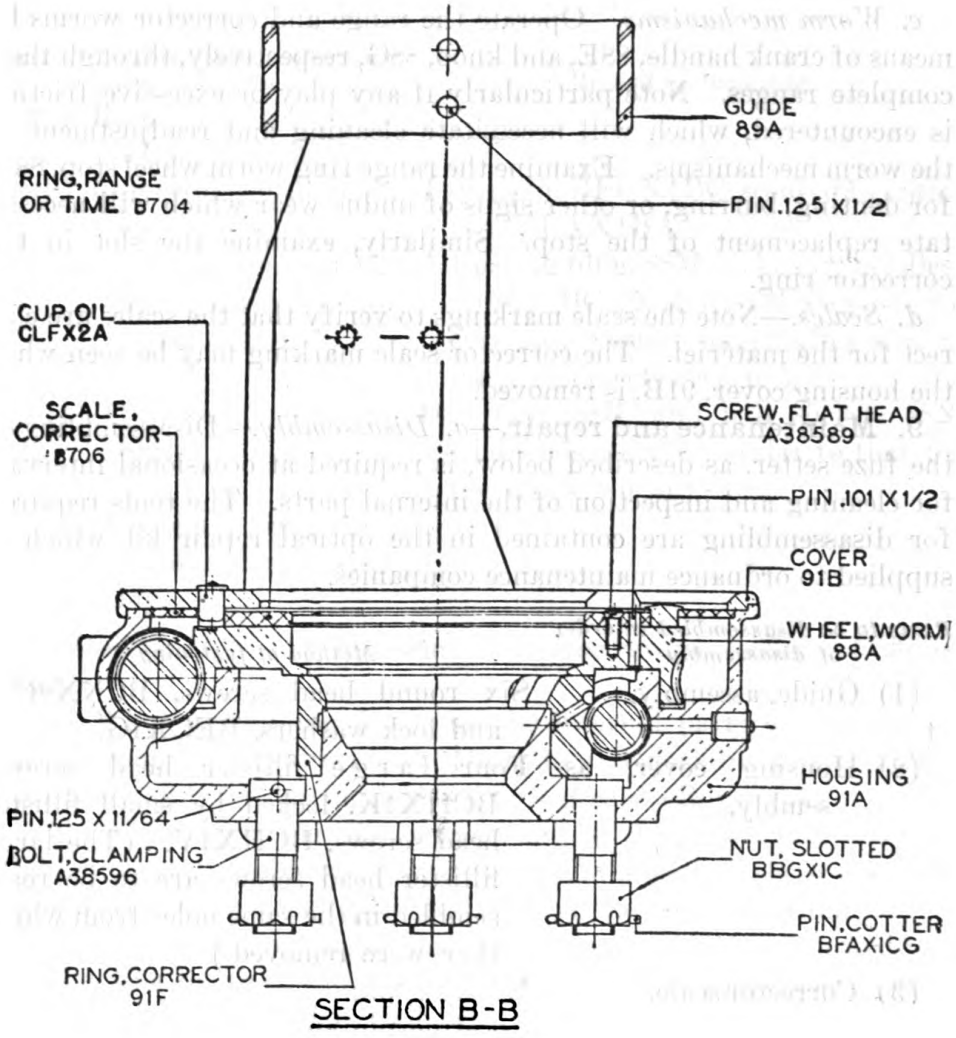


FIGURE 3.—Bracket fuze setter, M1916, sectioned views.

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c. Worm mechanisms.—Operate the range and corrector worms by means of crank handle, 88E, and knob, 88G, respectively, through their complete ranges. Note particularly if any play or excessive friction is encountered, which will necessitate cleaning and readjustment of the worm mechanisms. Examine the range ring worm wheel stop, 88F, for denting, burring, or other signs of undue wear which will necessitate replacement of the stop. Similarly, examine the slot in the corrector ring.

d. Scales.—Note the scale markings to verify that the scales are correct for the matériel. The corrector scale marking may be seen when the housing cover, 91B, is removed.

9. Maintenance and repair.—*a. Disassembly.*—Disassembling of the fuze setter, as described below, is required at occasional intervals for cleaning and inspection of the internal parts. The tools required for disassembling are contained in the optical repair kit which is supplied to ordnance maintenance companies.

Parts to be disassembled in order of disassembly	*Method of fastening*
(1) Guide, assembly.	Six round head screws, BCNX2CE, and lock washers, BECX1G.
(2) Housing cover, assembly.	Four large fillister head screws, BCHX1K, locked by small fillister head screws, BCHX1V. (The large fillister head screws are to be reassembled in the same holes from which they were removed.)
(3) Corrector scale.	Locating pin.
(4) Range or time ring.	Locating pin and four flat head screws, A38589.
(5) Range worm crank, assembly.	Taper pin, BFCX1BC, secured by cotter pin, BFAX1BA.
(6) Compression spring, 88S (for range worm plunger).	Adjusting plug, 88M, locked by headless screw, BCUX1DC. (Extract the range worm plunger, 88L, after removing the range worm.)
(7) Range worm, 88 K.	Bell cap 88R, and ball socket, 88N. The ball cap is threaded in place and secured by the headless screw, BCUX1EE. The ball socket is not threaded. It is secured by the headless screw, A38588, through the housing.

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Parts to be diassembled in order of disassembly	*Method of fastening*
(8) Range ring worm wheel, assembly.	
(9) Corrector worm knob, 88G.	Taper pin, BFCX1BC, secured by cotter pin, BFAX1BA.
(10) Compression spring, 88S (for corrector worm plunger).	Adjusting plug, 88M, locked by headless screw, BCUX1DF. (Extract the corrector worm plunger after removing the corrector worm.)
(11) Corrector worm, 88H.	Ball cap, 88R, and ball socket, 88N. (This assembly is similar to that for the range worm.)
(12) Corrector ring and pointer arm, assembly.	

b. Reassembly.—(1) Reassemble in the reverse order of disassembly.

(2) When assembling, lubricate the internal parts with a film of oil, lubricating, for aircraft instruments and machine guns. Lubricate the worms by coating lightly with grease (Royco 6A).

(3) When replacing the worms, adjust for minimum play by tightening each of the ball caps, 88R, until the ball on the worm shaft is held securely, without play and without excessive friction.

(4) The correct setting of the adjusting plug, 88M, is marked by a scribed line on the head. This setting is not critical and is satisfactory when the head is flush with the surrounding metal.

c. Adjustment.—No adjustments, other than those relating to the worm mechanisms described above, are required.

d. Lubrication.—The range and corrector worms are lubricated through two oil cups, CLFX2A, one in the top of the case and the other in the side of the case. Use oil, lubricating, for aircraft instruments and machine guns.

10. Accessories.—*a.* A canvas cover is provided to protect the fuze setter when not in use. The cover is identified by the marking "Cover, Bracket Fuze Setter, D785."

b. The bracket fuze setter, M1916A1, is provided with a bracket fuze setter base, D1284. The base is constructed of wood and is designed to hold the fuze setter at a convenient operating angle.

c. For use with the 75-mm gun carriages, M1897, M1916, and M1917, the fuze setter is mounted on an anchor, 16B, which is carried on the fuze setter anchor rod of the caisson.

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d. For use with the 75-mm gun carriage, M2A2, and 75-mm howitzer carriages, M2A1, M3, and M3A1, the fuze setter is mounted on an anchor, B141845, which is used direct on the ground.

SECTION III

SETTERS, FUZE, HAND, M1912 SERIES

Paragraph
Identification 11
Operation 12
Inspection 13
Maintenance and repair 14
Accessories 15

11. Identification.—*a.* Assembled and sectioned views of the hand fuze setter, M1912, are shown in figures 4 and 5.

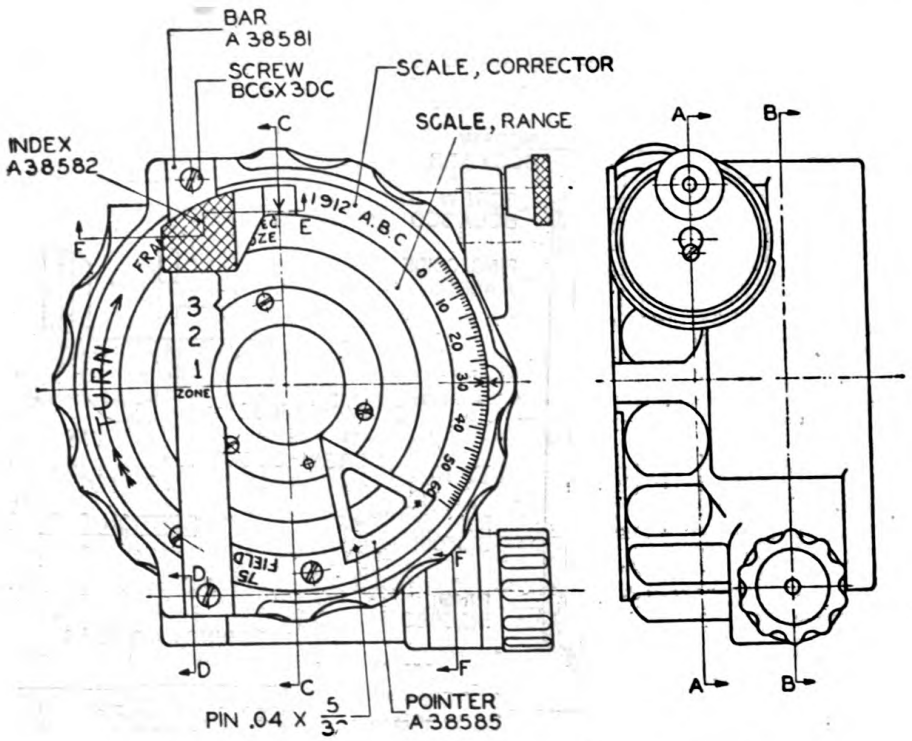
b. The following table lists the piece marks and distinguishing markings of the range scales and corrector scales used in the different models:

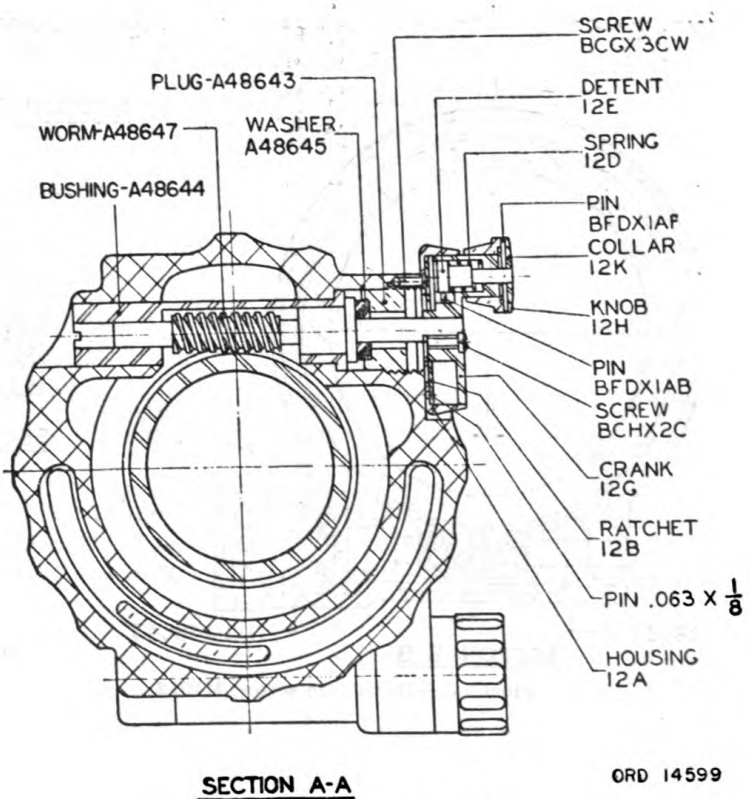
		Range scale	Corrector scale
M1912	Piece mark	B129522	A38587
	Markings	21-SEC. FUZE 75-MM GUN, M1916–M1917. REVERSE 75-MM GUN, M1897, FRENCH.	75-MM GUNS & HOW. 105-MM HOW.
	Graduations	Yards	0–60, arrow on 30.
M1912A1	Piece mark	B137426	A38586
	Markings	2.95-INCH MT. GUN (Reverse marked for 3-inch field gun, not used).	3-INCH FIELD GUN 2.95 MT. GUN
	Graduations	0–4900 yds	0–120, arrow on 30.
M1912A4	Piece mark	C44746	A38587
	Markings	21-SEC. FUZE 75-MM PACK HOWITZER, M1. SHRAPNEL, M37.	75-MM GUNS & HOW. 105-MM HOW.
	Graduations	0–5600 yds	0–60, arrow on 30.

12. Operation.—*a.* Pull out the detent knob, 12H, and while holding, rotate the range worm crank, 12G, to set the range scale to the desired range, then release the knob.

NOTE.—It will be found that the range scale index, A38582, may be moved to several positions on the index bar, A38581, but that it registers properly with the scale graduations only when in the outermost position. This movable index

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SECTION A-A

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FIGURE 4.—Hand fuze setter, M1912.

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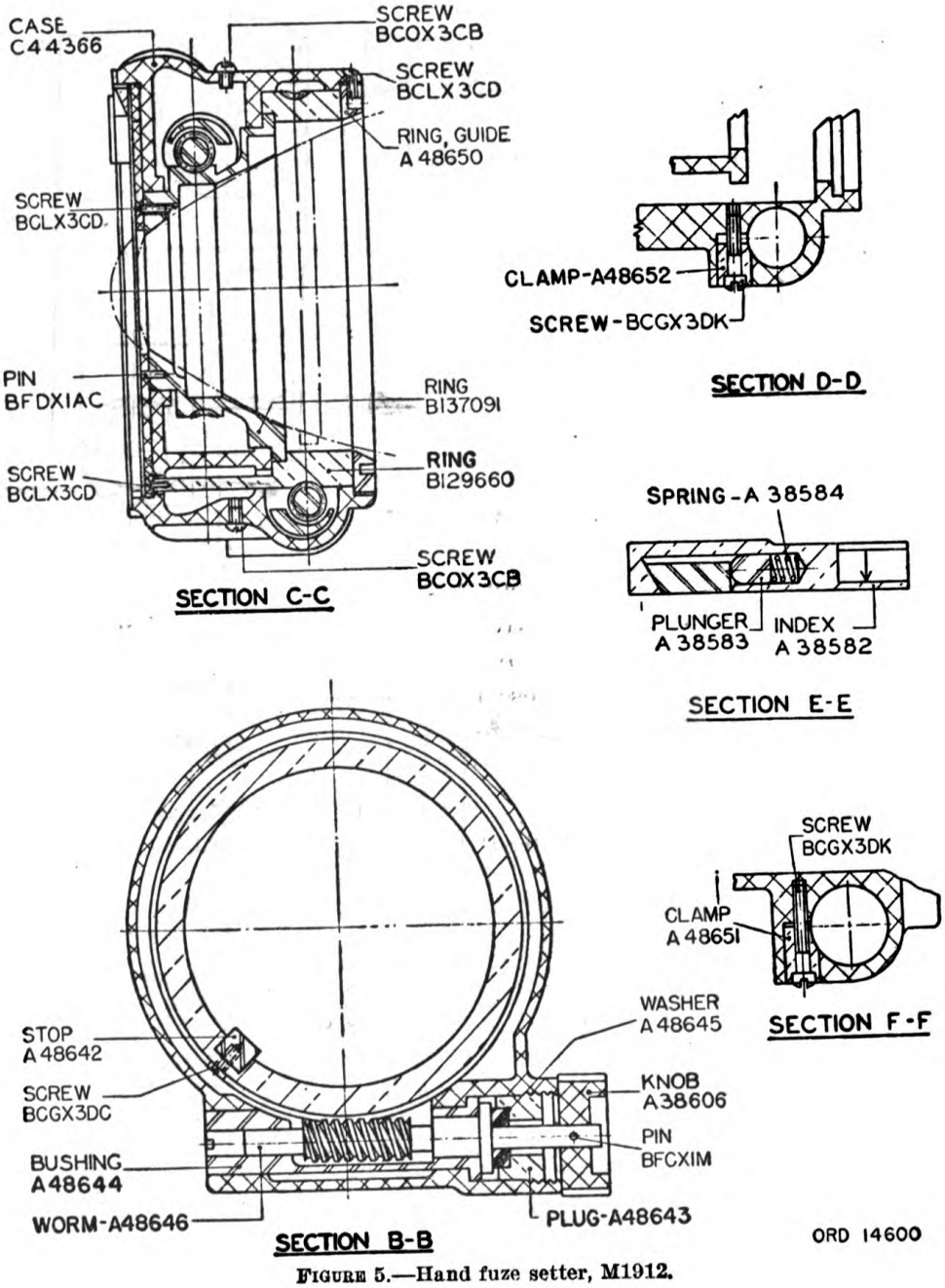


FIGURE 5.—Hand fuze setter, M1912.

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feature was provided originally for use in zone fire, with correspondingly graduated scales. In present usage, it is not necessary to move the index from its outermost position.

b. Rotate the corrector worm knob, A38606, until the desired correction is indicated on the corrector scale. If no correction is desired, make this setting at the "normal" (30) graduation (marked by arrow).

c. To leave the fuze in the "safe" setting, set the range scale to the "S" mark and set the corrector scale to the normal setting.

d. Place the fuze setter over the point of the fuze and rotate the fuze setter in a *clockwise* direction, as indicated by the arrow on the corrector scale, until the fuze pin of the movable time train ring is felt to enter the slot in the setting ring, B137091. Press the fuze setter firmly onto the fuze and continue rotation in the same direction until the stop, A48642, strikes the fixed fuze pin, which indicates that the setting operation has been completed.

e. Verify the completion of the fuze setting by noting that the safety pointer, A38585, coincides with the line on the closing cap of the fuze.

f. Lift off the fuze setter without rotating it.

Caution.—Rotate the fuze setter only in a clockwise direction. Incorrect settings and loosening of the fuze from the projectile may result from failure to follow these instructions.

13. Inspection.—Inspection is for the purpose of determining the condition of the instrument, whether repairs or adjustments are required, and the remedies necessary to insure serviceability and proper functioning. The listing below will serve as a guide for inspection.

a. Exposed parts.—Inspect the fuze setter for general appearance, loose or damaged parts, and missing parts. Operate the index, A38582, on the index bar, A38581, by sliding it back and forth and ascertain that the index plunger, A38583, holds the index securely in the operating position. Operate the detent, 12E, to see that it engages firmly with the ratchet teeth at several positions of the crank, 12G.

b. Worm mechanisms.—Operate the range and corrector worms by means of crank, 12G, and knob, A38606, respectively, through their complete ranges. Note particularly if any play or excessive friction is encountered at any point, which will necessitate cleaning and readjustment of the worm mechanisms. Examine the stop, A48642, for denting, burring, or other signs of undue wear which will necessitate replacement of the stop. Similarly, examine the slot in the setting ring, B137091.

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c. Scales.—Note the scale markings to verify that the scales are correct for the matériel.

14. Maintenance and repair.—*a. Disassembly.*—Disassembling of the fuze setter, as described below, is required at occasional intervals for cleaning and inspection of the internal parts. The tools required for disassembling are contained in the optical repair kit which is supplied to ordnance maintenance companies.

Parts to be disassembled in order of disassembly	*Method of fastening*
(1) Index bar, A38581, with index, A38582, and index parts.	Two fillister head screws, BCGX-3DC.
(2) Corrector scale, assembly.	Two flat head screws, BCLX3CD.
(3) Range scale.	Three flat head screws, BCLX3CD, and locating pin, BFDX1AC.
(4) Guide ring, A48650.	Ring is threaded into place and secured by locking screw, BCLX3-CD. Locking screw must be removed before attempting to remove guide ring.
(5) Corrector worm knob, A38606.	Taper pin, BFCX1M.
(6) Corrector worm plug, A48643, and washer, A48645.	The plug which is threaded into place, has a screw driver slot in its upper surface for turning purposes.
(7) Corrector worm, A48646.	
(8) Corrector scale ring, B129660, with stop, A48642.	
(9) Range worm crank, 12G.	Fillister head screw, BCHX2C, at center of crank.
(10) Ratchet, assembly.	Three fillister head screws, BCGX-3CW.
(11) Range worm plug, A48643, and washer, A48645.	This plug is fastened in the same manner as the corrector worm plug.
(12) Range worm, A48647.	
(13) Range ring, assembly, B137091.	

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b. Reassembly.—(1) Reassemble in reverse order of disassembly.

(2) When assembling, lubricate the internal parts with a film of oil, lubricating, for aircraft instruments and machine guns. Lubricate the worms by coating lightly with grease (Royco 6A).

(3) When replacing the worms, adjust for minimum play by tightening each of the plugs, A48643, until the worm is held securely, without play and without excessive friction.

c. Adjustment.—The only adjustments required are those for elimination of backlash in the worm mechanisms. The method of adjustment is the same for both the range and corrector worms. Longitudinal worm movement is eliminated by adjustment of the worm plugs, A48643, as previously described. For elimination of play due to wear of the worm gear teeth, the worms are mounted in eccentric worm bushings, A48644, which are secured by clamps as shown in section F–F and section D–D of figure 5. To adjust, loosen two clamps which secure each bushing and turn the bushing by means of the screw driver slot in the end. The adjustment setting, marked by a scribed line when the instrument is assembled, should not require frequent change. After adjustment, the clamps should be tightened.

d. Lubrication.—The range and corrector worms are lubricated through the two oil holes in the sides of the case. These holes are normally plugged by round head screws, BCOX3CB, which are removed for oiling.

15. Accessories.—The carrying case, M3, is issued for use with this fuze setter.

Section IV

SETTERS, FUZE, HAND, M1913 SERIES

	Paragraph
Identification	16
Operation	17
Inspection	18
Maintenance and repair	19
Accessories	20

16. Identification.—*a.* Assembled and sectioned views of the hand fuze setter, M1913, are shown in figures 6 and 7.

b. The following table lists the piece marks and distinguishing markings of the time scales and corrector scales used in the different models:

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		Range or time scale	Corrector scale
M1913	Piece mark	A48634	B137427
	Markings	45-SEC. COMB. FUZE.	155-MM GUNS
	Graduations	0–45.2	0–105, arrow on 30
M1913A1	Piece mark	A48634	B137428
	Markings	45-SEC. COMB. FUZE.	155-MM HOW., M1918
	Graduations	0–45.2	0–210, arrow on 60

c. The guide ring, B137424, on the under side of the fuze setter is marked "155-MM GUN OR HOW."

17. Operation.—*a.* Pull out the detent knob, 12H, and while holding, rotate the range worm crank, 12G, until the desired setting is indicated on the time scale, then release the knob.

NOTE.—It will be found that the time scale index, A38582, may be moved to several positions on the index bar, A48635, but that it registers properly with the scale graduations only when in the outermost position. This movable index feature was provided originally for use in zone fire, with correspondingly graduated scales. In present usage, it is not necessary to move the index from its outermost position.

b. Rotate the corrector worm knob, A38606, until the desired correction is indicated on the corrector scale. If no correction is desired, make this setting at the "normal" graduation (marked by the arrow).

c. To leave the fuze in the "safe" setting, set the range scale to the "S" mark and set the corrector scale to the normal setting.

d. Place the fuze setter over the point of the fuze and rotate the fuze setter in a *clockwise* direction, as indicated by the arrow on the case, until the fuze pin of the movable time train ring is felt to enter the slot in the setting ring, B135297. Press the fuze setter firmly onto the fuze and continue rotation in the same direction until the stop, A48649, strikes the fixed pin on the body of the fuze, which indicates that the setting operation has been completed.

e. Verify the completion of the fuze setting by noting that the safety pointer, A48656, coincides with the line on the closing cap of the fuze.

f. Lift off the fuze setter without rotating it.

Caution.—Rotate the fuze setter only in a clockwise direction. Incorrect settings and loosening of the fuze from the projectile may result from failure to follow these instructions.

18. Inspection.—Inspection is for the purpose of determining the condition of the instrument, whether repairs or adjustments are re-

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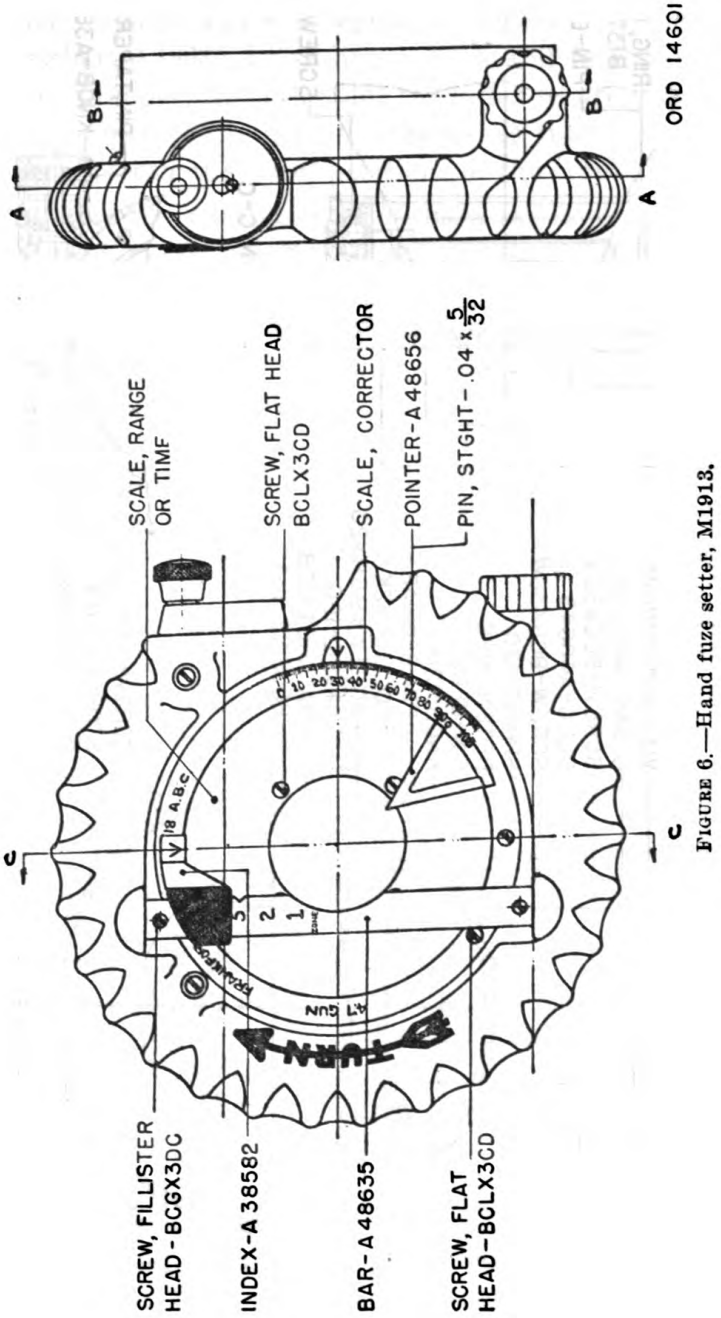


FIGURE 6.—Hand fuze setter, M1913.

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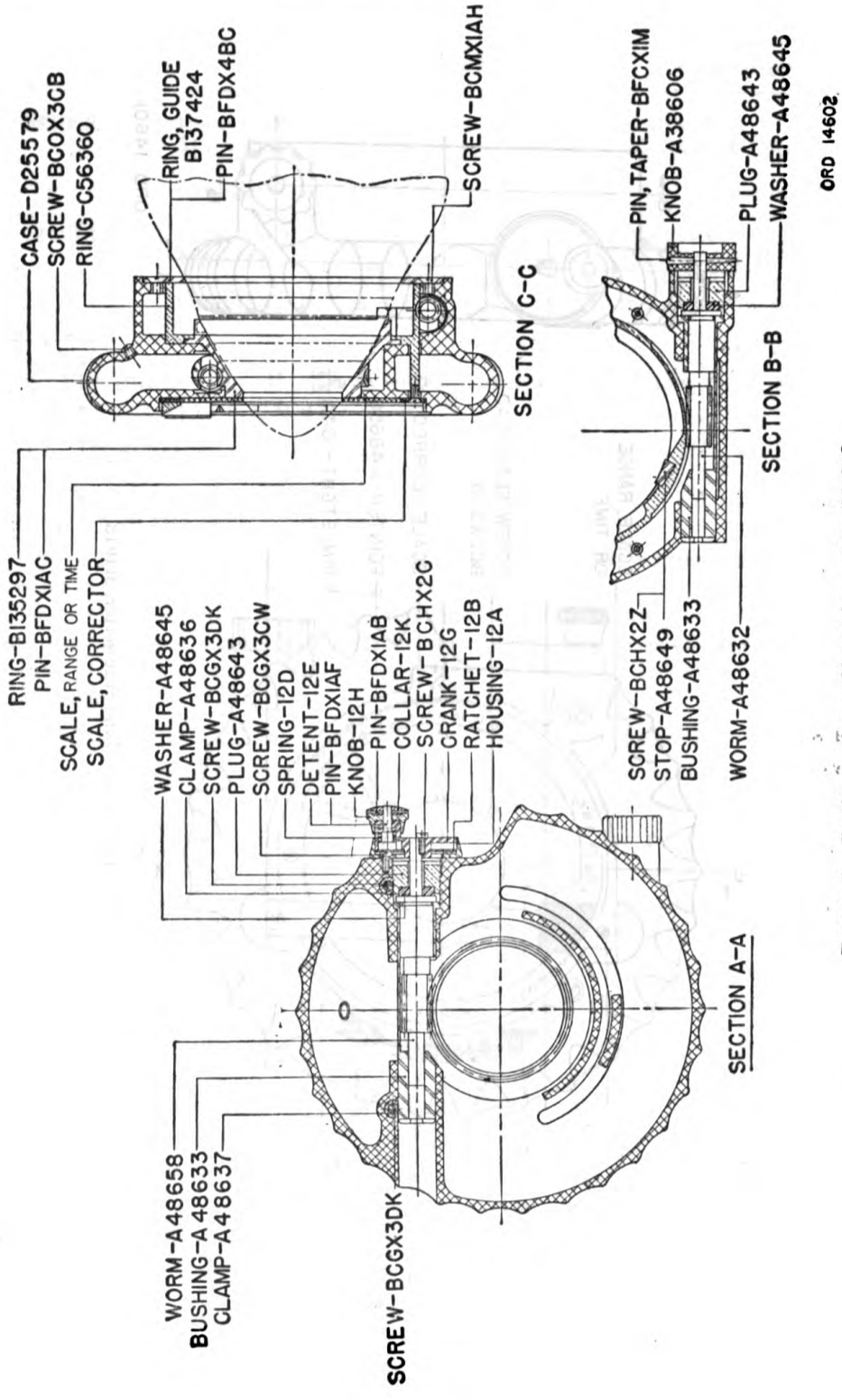


FIGURE 7.—Sectioned views of hand fuze setter, M1913.

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quired, and the remedies necessary to insure serviceability and proper functioning. The listing below will serve as a guide for inspection.

a. Exposed parts.—Inspect the fuze setter for general appearance, loose or damaged parts, and missing parts. Operate the index, A38582, on the index bar, A48635, by sliding it back and forth, and ascertain that the index plunger, A38583, holds the index securely in the operating position. Operate the detent, 12E, to see that it engages firmly with the ratchet teeth at several positions of the crank, 12G.

NOTE.—The operation of the index on the index bar is shown in section E–E of figure 5 if index bar, A48635, is substituted for the one shown.

b. Worm mechanisms.—Operate the range and corrector worms by means of crank, 12G, and knob, A38606, respectively, through their complete ranges. Note particularly if any backlash or undue friction is encountered, which will necessitate cleaning and readjustment of the worm mechanisms. Examine the stop, A48649, for denting, burring, or other signs of undue wear which will necessitate replacement of the stop. Similarly examine the slot in the setting ring, B135297.

c. Scales.—Note the scale markings to verify that the scales are correct for the matériel.

19. Maintenance and repair.—*a. Disassembly.*—Disassembling of the fuze setter, as described below, is required at occasional intervals for cleaning and inspection of the internal parts. The tools required for disassembling are contained in the optical repair kit which is supplied to ordnance maintenance companies.

Parts to be disassembled in order of disassembly	*Method of fastening*
(1) Index bar, A48635, with index, A 38582, and index parts.	Two fillister head screws, BCGX-3DC.
(2) Corrector scale, assembly.	Two flat head screws, BCLX3CD.
(3) Time scale.	Four flat head screws, BCLX3CD, and locating pin, BFDX1AC.
(4) Guide ring, B137424.	Six flat head screws, BCMX1AH.
(5) Corrector worm knob, A38606.	Taper pin, BFCX1M.
(6) Corrector worm, plug, A48643, and washer, A48645.	The plug, which is threaded into place, has a screw driver slot in its upper surface for turning purposes.
(7) Corrector worm, A48632.	
(8) Corrector scale ring, C56360.	

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Parts to be disassembled in order of disassembly	*Method of fastening*
(9) Range worm crank, 12G.	Fillister head screw, BCHX2C, at center of crank.
(10) Ratchet, assembly.	Three fillister head screws, BCGX-3CW.
(11) Range worm plug, A48643, and washer, A48645.	This plug is fastened in the same manner as the corrector worm plug.
(12) Range worm, A48658.	
(13) Setting ring, assembly.	

b. Reassembly.—(1) Reassemble in the reverse order of disassembly.

(2) When assembling, lubricate the internal parts with a film of oil, lubricating, for aircraft instruments and machine guns. Lubricate the worms by coating lightly with grease (Royco 6A).

(3) When replacing the worms, adjust for minimum backlash by tightening each of the plugs, A48643, until the worm is held securely, without shake and without excessive friction.

c. Adjustment.—The only adjustments required are those for elimination of backlash in the worm mechanisms. The method of adjustment is the same for both the range and corrector worms. Longitudinal worm movement is eliminated by adjustment of the worm plugs, A48643, as previously described. For elimination of play due to wear of the worm gear teeth, the worms are mounted in eccentric worm bushings, A48633. To adjust, loosen the two clamps which secure each bushing and turn the bushing by means of the screw driver slot in the end. The adjustment setting should not require frequent change. After adjustment, the clamps should be tightened. The construction of these clamps is shown in section D–D and section F–F of figure 5.

d. Lubrication.—The range worm is lubricated through an oil hole in the side of the case. This hole is normally plugged by round head screw, BCOX3CB. The corrector worm is lubricated through the guide ring screw hole which is directly below the worm. Both holes are marked. The screws are temporarily removed for oiling. Use oil, lubricating, for aircraft instruments and machine guns.

20. Accessories.—The carrying case, M2, is issued to protect this fuze setter when not in use.

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SECTION V

CARE AND PRESERVATION

Paragraph
General 21

21. General.—*a.* The exterior surfaces should be kept free from dirt, sand, mud, etc., and also of any grease or oil which may seep from the interior mechanisms. Graduated surfaces should be cleaned occasionally with dry cleaning solvent and wiped thoroughly dry after cleaning. Polishing liquids, pastes, or abrasives are not to be used.

b. The fuze setters should be protected from wet weather as much as possible. They should be wiped dry as soon as practicable after use in such weather to prevent rusting of steel parts. They should never be placed in their cases while wet.

c. When operating the range worm crank of the hand fuze setters, withdraw the detent knob sufficiently to prevent scraping of the detent on the rachet teeth. Scraping will eventually wear the detent to such an extent as to permit accidental turning of the crank.

d. Fuze setters, in active use should be lubricated frequently through the oil holes provided. The correct lubricant is oil, lubricating, for aircraft instruments and machine guns. Not more than a few drops of oil should be used at one time.

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APPENDIX

LIST OF REFERENCES

1. Standard Nomenclature Lists.

Bracket fuze setter, M1916	SNL F–11
Optical repair kit for field artillery	SNL F–21
Head fuze setter, M1912	SNL F–126
Head fuze setter, M1913	SNL F–127
Current Standard Nomenclature Lists are as tabulated here. An up-to-date list of SNL's is maintained as the "Ordnance Publications for Supply Index."	(OPSI)

2. Technical Manuals.

75-mm gun matériel, M1897	TM 9–305
75-mm gun and carriage, M1917	TM 9–315
Cleaning and preserving materials	TM 9–850 (now published as TR 1395–A)
Matériel inspection and repair	TM 9–1100

[A. G. 062.11 (5–13–41).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

DISTRIBUTION:

D 2, 7, 17 (3); B 4, 6 (3); IR 4, 6 (2); Bn 9 (2); IC 9 (4).
(For explanation of symbols see FM 21–6.

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