

N18. ORDNANCE BUREAU

[Established as Ordnance and Hydrography Bureau by act to reorganize Navy Department approved Aug. 31, 1842 (Stat. L. v. 5, p. 579). The name was changed to Ordnance Bureau in accordance with act approved July 5, 1862 (Stat. L. v. 12, p. 510). See also note at head of N14.]

Classification
no.

N18.1: Annual reports

(date) [1842-1909, in annual reports of Navy Department (N1.1:), and usually issued separately also. The Department edition of Navy Department report sometimes gave the Ordnance Bureau report only in abridged form.
Report for 1866 was published as Congressional document, [1288-16].]

N18.2: General publications

- Ai7¹ Air compressor. Instructions for operating E. W. Bliss Company air compressor, type 2. [1897.] 12°
- Ai7² Air-compressor test, instructions for operating air-compressors. [1897.] 12°
- Ai7³ Air compressor. Rand air compressor, type 2, instructions for operating 9½-inch by 4-inch torpedo compressor, made with 3-stage air cylinders. [1897.] 12°
- Ai7⁴ Air compressor. Translation, description and instructions for installation of air compressors, system Kaselowsky, for 5½ and 9 liters, 100 atmospheres, a minute. [1899.] 12°
- Ai7⁵ Air compressor. Instructions for installation and manipulation of Whitehead air compressors, type 2. [Apr. 13, 1898.]
- Am6¹ Ammunition. Description of ammunition used in naval service and method of preparing same for issue. Naval Torpedo Station [Newport, R. I.], 1896. 12°
- Am6² Same, plates. n. p. 1896. 4°
- Am6³ Ammunition. Stowage sizes of ammunition, Navy. n. p. [1902].
- Am6⁴ Ammunition. Instructions for care and preparation of ammunition. 1874.
- Ar5¹ Armor for naval vessels. Advertisement and circular concerning armor for naval vessels. 1899.
- Ar5² Same. [Jan. 25, 1907.]
- Ar5³ Same. Apr. 22, 1907.
- B21¹ Ballistic tables for standard navy projectiles with ogival heads of 2 calibers radius; computed by R. R. Ingersoll from Mayevski's Laws of resistance of air, as deduced from Krupp's experiments. 1893.
- B21² Ballistics. Interior ballistics, pt. 1: Properties of powders and their action in closed chambers and in cannon, by A. Brynk; translated by John B. Bernadou. 1904.
- B63¹ Boat armament. System of boat armament in Navy; by J. A. Dahlgren. [1st edition.] Philadelphia, printed by A. Hart, 1852. [The cover describes this volume as "part second." It is not known whether pt. 1 was ever published.]
- B63² Same, with title, Boat armament of Navy; by J. A. Dahlgren. 2d edition. Philadelphia, printed by King & Baird, 1856.
- C28 Catechism for magazine employees and those having charge of magazines on shore. 1904. 12°
- C49 Circulars. [Compilation of circulars issued by Ordnance Bureau, May 4, 1861-Nov. 16, 1863.] Oct. 19, 1863. [Circulars which had become obsolete were omitted from this compilation.]
- C64 Code of flotilla and boat squadron signals for Navy; prepared by Thornton A. Jenkins. 1861. 24° [See, for later edition, N17.12¹:F66.]
- C72 Colt automatic gun, caliber 6 millimeters, mark 1, description and nomenclature; prepared by P. R. Alger and N. C. Twining. 1897. [See, for later edition, N18.7:67.]

Classification
no.

N18. ORDNANCE BUREAU—Continued

N18.2: General publications—Continued

- C88 Cruisers. Detailed requirements of Bureau of Ordnance for armored cruisers West Virginia, Nebraska, and California, nos. 4, 5, and 6, authorized by act approved Mar. 3, 1899, and Maryland, Colorado, and South Dakota, nos. 7, 8, and 9, authorized by act approved June 7, 1900, and described in Navy Department circular dated July 31, 1900. [July 31, 1900.] 12°
- D74 ✓ Dotter. Notes on care of dotter. Mar. 23, 1906. narrow large 8°
- E1 2 Electric position-indicator, or distance-measurer. 1871. 4°
- Eu7¹ Europe. Report on naval mission to Europe, especially devoted to material and construction of artillery. 1873. v. 1, 4°
- Eu7² Same. 1873. v. 2, 4°
- Ex7 Explosives. Notes on explosives and their application in torpedo warfare; by Walter N. Hill. U. S. Torpedo Station, Newport, R. I., 1875.
- F51 Fire regulations, Naval Proving Ground and Powder Factory. [1907.] 4°
- F54 Fiske range-finder. Instructions for installation, use, and care of Fiske range-finder and range-indicator. n. p. 1894.
- F63 Fletcher rapid-fire breech mechanism. Nomenclature and description of Fletcher rapid-fire breech mechanism, pedestal mounts, 3-inch field and gun carriage, and electric firing attachments. 1897. [See also N18.7:158.]
- G13¹ Galvanic batteries. Lecture on galvanic batteries and electrical machines as used in torpedo operations, pt. 1: —; by John P. Merrell. U. S. Torpedo Station, Newport, R. I., 1874. *
- G13² Same, pt. 2: Frictional and magneto-electric machines; by John P. Merrell. U. S. Torpedo Station, Newport, R. I., 1874. *
- G13³ Same, pt. 3: Dynamo-electric machines; [by] John P. Merrell. U. S. Torpedo Station, Newport, R. I., 1875.
- G95¹ Gun-cotton torpedo instructions. Plates to accompany gun-cotton torpedo instructions, Navy; prepared at Torpedo Station, Bureau of Ordnance. n. p. 1886.
- G95² Gunnery drill book for new armaments, 1889. Naval Torpedo Station and War College Print [1889]. [See, for later edition, N17.12¹: G95¹.]
- G95³ Gun mounts. Description of modern gun mounts in Navy. 1894.
- G95⁴ Guns. Directions for removing steel recoil cylinder and putting bronze recoil cylinder on 3-inch field gun, mark 1. [1901.]
- G95⁵ Gunpowder. Theory and practice of granulating gunpowder; by J. D. Marvin. Naval Experiment Battery, Annapolis, Md., 1875.
- G95⁶ Gunnery notes. 1871.
- G95⁷ Gun implements. Dimensions and weights of gun implements. 1874.
- H83 Howell torpedo, 14.2 inches, mark 1, general description. Naval Torpedo Station Print, 1896.
- M31 Manufacture. Notes on manufacture and inspection of steel breech-loading rifles, rapid-fire and machine guns, and small arms. Torpedo Station Print, 1891.
- M66 Minors. Rules to be observed in examination of minors under instruction. Apr. 25, 1900. 12°
- N22¹ Naval percussion locks and primers, particularly those of United States; by J. A. Dahlgren. Philadelphia, A. Hart, 1853.
- N22² Naval experimental battery. Objects and resources of naval experimental battery at Annapolis, Md. [Washington] 1875.
- N72 Nomenclature of steel B. L. R. guns and carriages and mounts for Hotchkiss guns. n. p. n. d.

Classification no. **N18. ORDNANCE BUREAU—Continued**

- N18.2: General publications—Continued**
- N81 North Atlantic Squadron. Notes for outfit of countermines for North Atlantic Squadron. Apr. 1898.
- Or2¹ Ordnance. Description of modern ordnance in Navy. 1894.
- Or2² Ordnance. Course of instruction in ordnance at seamen's quarters, navy yard, Washington, D. C. 1903.
- Or2³ Same. 1906.
- Or2⁴ Same. 1908.
- P19 Pan-American Exposition, Buffalo, N. Y., Navy Department's ordnance exhibit. [1901.]
- P56 Phosphor-bronze. Essay on use of various alloys, especially of phosphorous bronze, for founding of cannon, by C. Montefiore-Levy and C. Kunkel, Brussels, 1870; translated from the French by John D. Brandt. 1872. 4°
- P87 Powder magazines. Regulations for powder magazines and shell houses. 1874.
- P93 Price list of ordnance stores, Mar. 8, 1905. [1905.]
- P99 Pyro-cellulose. Method of manufacture of pyro-cellulose. Jan. 2, 1900. 12°
- R16¹ Range finder. Form for use in adjusting and verifying range finder. n. d.
- R16² Ranges. Calculated tables of ranges for army and navy guns, with method of finding distance of object at sea; by W. P. Buckner. New York, D. Van Nostrand, 1865.
- R16³ Range tables for naval guns; by I. K. Seymour. Torpedo Station, 1893.
- R24 Reductions, etc., of steel. Tables of reductions, tensile strengths, elastic limits, etc. [of steel]. 1898.
- R32 Revolver. Notes on navy revolver, models of 1889 and 1895. [1897.]
- R44 Rifle. U. S. navy rifle, calibre 6 millimetres, model 1895, description and nomenclature; by P. R. Alger and N. C. Twining under direction of Bureau of Ordnance. Hartford, Conn., Press of Case, Lockwood, and Brainard Co., 1896.
- Sel1 Seaman gunners. Handbook for seaman gunners, catechism of Whitehead torpedoes, naval defense mine, countermine, observation mine, explosives, and electricity. 1908.
- Sh4 Shells and shell-guns; by J. A. Dahlgren. Philadelphia, King and Baird, printers, 1856.
- Sm7¹ Smokeless powder. Regulations governing examination of smokeless powder for magazines on shipboard. Sept. 10, 1901.
- Sm7² Same for magazines on shore. Sept. 10, 1901.
- Sm7³ Smokeless powder. U. S. navy smokeless powder; by A. C. Dieffenbach. [Dec. 28, 1904.]
- Sm7⁴ Smokeless powder. [Reassignments of weights of charge of smokeless powders.] Dec. 9, 1905. 4°
- Sm7⁵ Same. Oct. 1, 1906. 4°
- Sm7⁶ Smokeless powder. [Circular letter to commandants and commanders-in-chief, withdrawing from service smokeless powder containing mercuric chloride in sufficient quantities to mask K. I. heat test.] Oct. 22, 1906. 4°
- Su1 Submarine boats. Lecture on submarine boats and their application to torpedo operations; by F. M. Barber. U. S. Torpedo Station, Newport, R. I., 1875.
- Su3 Suggestions to officers on temporary duty under instruction at Naval Proving Ground and Smokeless Powder Factory of things to be studied or observed. Dec. 28, 1904. 12°

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no.

N18. ORDNANCE BUREAU—Continued

N18.2: General publications—Continued

- T63¹ Torpedoes. Notes on torpedoes, offensive and defensive; by R. H. Stotherd. 1872.
[The author was a major in the Royal Engineers, and his book was reprinted at the Government Printing Office from the British edition. The back title of this Government Printing Office edition reads: Submarine mines.]
- T63² Torpedo boats. Details of armaments for torpedo-boat destroyers and torpedo boats, 1st class, for Navy. 1898. 12°
- T63³ Torpedo experiments at Key West, Fla., Mar. 1874. n. p. [Mar. 31, 1874].
- T63⁴ Torpedo fuzes. Notes on torpedo fuzes; by G. A. Converse. U. S. Torpedo Station, Newport, R. I., Jan. 1875.
- T63⁵ Torpedo gyro gears. Instructions for packing navy torpedo gyro gears for shipment. Jan. 17, 1906.
- T86¹ Turret mounts. Directions for care and preservation of turret mounts. 1895.
- T86² Turret mounts. Telescope sights for turret mounts. n. p. [July 1, 1896].
- W58 Whitehead torpedoes. Contract for launching apparatus for Whitehead 5^m 45^{cm} torpedoes. n. d. f°

N18.3: Bulletins

(nos.) [None issued.]

N18.4: Circulars (unnumbered)

(date)

[Prior to 1893, unnumbered circulars were issued by this bureau as necessary in connection with its work. Since that date, under article 1614 of Regulations for government of Navy, 1893, all such information and instructions are included in the various series issued by the Secretary of the Navy.

The Public Documents Library has very few of the early circulars and no complete file could be consulted. The entries for 1861-63 in the list below are taken from Compilation of circulars issued by Ordnance Bureau, May 4, 1861-Nov. 16, 1863 (N18.2:C49); that compilation omitted all obsolete circulars.]

1861, May 4	*	1863, July 9	*
June 19	*	Aug. 21	*
July 24	*	Aug. 25	*
Aug. 28	*	Aug. 31	*
Dec. 2	*	Sept. 1	*
1862, Apr. 11	*	Sept. 2	* [Relating to inspection of ships.]
Apr. 21	*	Sept. 2	* [Relating to inspection of metals.]
Apr. 22	*	Sept. 8	* [Relating to proportion of projectiles.]
June 3	*	Sept. 8	* [Relating to color of projectiles.]
June 4	*	Sept. 11	*
July 2	*	Sept. 19	*
July 15	*	Sept. 26	*
July 24	*	Oct. 5	*
Aug. 4	*	Oct. 17	*
Aug. 19	*	Oct. 24	*
Sept. 10	*	Nov. 5	*
Oct. 15	*	Nov. 16	*
Oct. 22	*	1864-1884	*
Nov. 9	*	1885, Apr. 14	*
Dec. 11	*	1886	[None issued?]
Dec. 18	*	1887	[None issued?]
Dec. 20	*	1888, Sept. 1	*
Dec. 29	*	1889	[None issued?]
1863, Jan. 19	*	1890	[None issued?]
Feb. 4	*	1891, Nov. 12	*
Feb. 5	*	Dec. 29	*
Feb. 13	*	1892	[None issued?]
Feb. 18	*	1893	[None issued?]
Feb. 19	*		
Feb. 20	*		
Mar. 16	*		
Mar. 23	*		

Classification
no.

N18. ORDNANCE BUREAU—Continued

N18.5: Ordnance instructions for Navy

(ed. nos.) [1st edition.] Instructions in relation to preparation of vessels of war for battle, to duties of officers and others when at quarters, and to ordnance and ordnance stores; [with] Form of exercise and manœuvre for boat-howitzers of Navy, by J. A. Dahlgren. [1st edition.] 1852. [Imprints are: Washington, C. Alexander, printer, 1852; and Philadelphia, A. Hart, 1852.]

[The matter contained in the 1st edition as an appended article is included in the body of the later editions.]

2d edition. 1860.

3d edition. 1864.

4th edition. 1866.

5th edition. 1880.

[Discontinued.]

N18.6: Specifications (unnumbered) various sizes

(CT)

[These unnumbered specifications, which are not of interest to the general public, are not listed here.]

Some of the specifications, originally issued in 12, have been reprinted in 4° as Ordnance pamphlets. These reprints and all other specifications which belong to the numbered series of Ordnance pamphlets, whether the number appears on the publication or not, are to be classed under N18.7: See also note under N18.7:

In cases where the same subject matter appears in more than one form, there being often no difference except in size, class under N18.6: the prints which are not Ordnance pamphlets, and under N18.7: those which properly belong to that series.]

N18.7: Ordnance pamphlets 4°

(nos.)

[Although this series was begun about 1896, the issues prior to 1905 appeared without numbers. In 1905, a system of consecutive numbers so arranged as to bring together the pamphlets on closely related subjects was adopted by the Ordnance Bureau. This plan included those pamphlets previously issued and made provision for future issues. Up to date (1911) there are still numbers which are unassigned. See, for lists of these numbers, Index to Ordnance pamphlets, which appeared in 1905 and 1907 as Ordnance pamphlet 0 (N18.7:0^{1,2}).

The series of Ordnance pamphlets includes some, but not all, of the specifications issuing from the Ordnance Bureau; those which do not belong to this series being classed with other unnumbered specifications; see N18.6:]

0 [1st edition] Nov. 1905 [This is a list of Ordnance pamphlet numbers.]

Same, addenda

Same. [2d edition] Nov. 1907

[1] Specifications for armor plates and appurtenances. Jan. 1893. 4°

[2] Same. Apr. 1896. 4°

[3] Same. May, 1898. 4°

[4] Same. Oct. 1900. 4°

5}

6} [Not issued up to Dec. 31, 1909.]

[7] Face-hardened armor. Dec. 1902. 4°

8 [Not issued up to Dec. 31, 1909.]

9

[10] Manufacture of armor-piercing projectiles. Sept. 1902. 4°

11

12 [Not issued up to Dec. 31, 1909.]

[13] Specifications for armor-piercing shell. Feb. 1903. 4° [Confidential.]

13 Same. Oct. 1907 4° [Confidential.]

14 Oct. 1906 *

Same. Nov. 1906

Same. Oct. 1907

15 Oct. 1906 *

Same. Oct. 1907

[16] Specifications for minor caliber steel shell. Nov. 1900. 4°

17 *

Classification
no.

N18. ORDNANCE BUREAU—Continued

N18.7: Ordnance pamphlets—Continued

- | | | |
|--------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (nos.) | 18 | |
| | [19] | Manufacture of U. S. navy smokeless powder. Sept. 1902. 4° |
| | 20 | * |
| | [21] | Heat test of smokeless powder. Sept. 1902. 4° |
| | 22 | * [Confidential.] |
| | [23] | General description of manufacture, etc., of gun cotton. Mar. 1905. * |
| | 24 | * |
| | [25] | Specifications for manufacture of 6-inch mark 8, 7-inch mark 2, 8-inch mark 6, and 12-inch mark 5 guns and breech mechanisms, etc. Jan. 1905. * |
| | 26 | * [Confidential.] |
| | 27 | * |
| | 28 | * |
| | 29 | [Not issued up to Dec. 31, 1909.] |
| | [30] | Specifications for manufacture of Howell automobile torpedoes, 45 cm., U. S. N., mark 1. June, 1896. 4° |
| | [31] | Specifications for manufacture of Howell automobile torpedoes, 14.2-inch, U. S. N., mark 1. Jan. 1897. 4° |
| | [32] | Specifications for manufacture of Whitehead automobile torpedoes, U. S. N., 5 m. × 45 cm., mark 1. Dec. 1897. * |
| | [33] | Specifications for manufacture of Whitehead automobile torpedoes, U. S. N., mark 3. Sept. 1896. * |
| | [34] | Specifications for manufacture of Bliss-Leavitt automobile torpedoes, U. S. N., 5 m. × 21 in., mark 1. Nov. 1903. 4° |
| | [35] | Specifications for manufacture of Bliss-Leavitt automobile torpedoes, U. S. N., 5 m. × 45 cm., mark 3. Dec. 1903. 4° |
| | [36] | Specifications for materials for manufacture of Bliss-Leavitt torpedoes, U. S. N., 5 m. × 45 cm., mark 4. Jan. 1905. * |
| | [37] | Specifications for manufacture of B.-L. torpedoes, U. S. N., 5 m. × 45 cm., mark 4. Jan. 1905. * [Confidential.] |
| | 38 | * [Confidential.] |
| | [39] | Specifications for manufacture of apparatus for Howell automobile torpedoes, 45 cm., U. S. N., mark 1. June, 1896. * |
| | [40] | Specifications for manufacture of launching apparatus for Whitehead 5 m. 45 cm. torpedoes. Oct. 1897. 4° |
| | 41 | [Not issued up to Dec. 31, 1909.] |
| | 42 | |
| | 43 | |
| | [44] | Specifications for Bliss type 3 single steam cylinder air compressors. Nov. 1900. 4° |
| | [45] | Specifications for Bliss type 5 single steam cylinder air compressors, nos. 6-15. June, 1901. 4° |
| | 46 | [Not issued up to Dec. 31, 1909.] |
| | [47] | Specifications for type 4 Rand air compressor. Apr. 1903. 4° |
| | [48] | Specifications for type 5 Rand air compressor. Apr. 1903. 4° |
| | [49] | Specifications for Rand type 6 electric air compressors. Apr. 1903. 4° |
| | 50 | * |
| | 51 | [Not issued up to Dec. 31, 1909.] |
| | 52 | |
| | 53 | |
| | [54] | Specifications for bronze torpedo air accumulators of 50 cubic feet capacity, for United States ships Virginia [etc.], working pressure, 2,500 pounds. May 18, 1905. 4° |
| | [55] | Specifications for steel hoop forgings for torpedo air vessels for Navy. June, 1892. * |

Classification
no.

N18. ORDNANCE BUREAU—Continued

N18.7: Ordnance pamphlets—Continued

- (nos.)
- [56] Specifications for manufacture of bronze torpedo air accumulators for armored cruisers Pennsylvania, etc. Sept. 1904. *
- [57] Same? Nov. 1904. *
- [58] Specifications for standing torpedo air piping and fittings for ships of Navy. Oct. 1904. *
- [59] Standard battery control system. July, 1905. *
- [60] Increasing twist of rifling. Apr. 1905. *
- [61] Introductory definitions, general discussions, etc., of guns, breech mechanisms, and gun mounts. Aug. 1902. 4°
- [62] Nomenclature of gun mounts. Mar. 1905. *
- [63] Electric firing and night sight lighting attachments. Nov. 1904. *
- 64
- [65] Colt automatic gun, caliber 6 mm. May, 1903. 4°
- 66 [Not issued up to Dec. 31, 1909.]
- [67] Colt automatic gun, caliber .30. Sept. 1902. 4° [See, for earlier edition, N18.2:C72.]
- 68 } [Not issued up to Dec. 31, 1909.]
- 69 }
- [70] Gatling guns, models prior to 1880 up to and including 1900. Mar. 1903. 4°
- 71 [Not issued up to Dec. 31, 1909.]
- [72] Gatling gun, mark 2, navy type, .30-caliber. Sept. 1902. 4°
- 73 [Not issued up to Dec. 31, 1909.]
- 74
- [75] Hotchkiss revolving cannon. Feb. 1903. 4°
- 76
- [77] 1-pounder rapid-fire guns, Hotchkiss light, marks 1 and 2, Hotchkiss heavy, marks 1 and 2, Driggs-Schroeder heavy, marks 1 and 2, Maxim-Nordenfelt automatic, marks 1 and 2. Jan. 1903. 4°
- [78] 1-pounder gun and breech mechanism, mark 6. Apr. 1904. *
- [79] 1-pounder gun, mark 8, formerly Hotchkiss heavy, mark 3, semiautomatic. [1902.] 4°
- 80 [Not issued up to Dec. 31, 1909.]
- 81
- 82 *
- [83] 3-pounder rapid-fire navy guns, Hotchkiss, mark 1, Driggs-Schroeder, marks 1 and 2. Jan. 1903. 4°
- [84] 3-pounder gun, mark 4, formerly Hotchkiss, mark 4, 50 calibers, semiautomatic. Sept. 1902. 4°
- 85 } [Not issued up to Dec. 31, 1909.]
- 86 }
- 87 }
- 88 }
- 89 }
- 90 }
- 91 }
- 92 }
- [93] 6-pounder guns, Hotchkiss, marks 1 and 2, Driggs-Schroeder, marks 1 and 2 and mark 3, Army, Nordenfelt, mark 2. Dec. 1902. 4°
- 94 [Not issued up to Dec. 31, 1909.]
- [95] 6-pounder gun, mark 9, formerly Maxim-Nordenfelt, mark 2, semiautomatic. Jan. 1903. 4°
- 96 } [Not issued up to Dec. 31, 1909.]
- 97 }

Classification no. **N18. ORDNANCE BUREAU—Continued**

N18.7: Ordnance pamphlets—Continued

- (nos.) 98 Apr. 1907 *
 Same. May, 1907
 99 } [Not issued up to Dec. 31, 1909.]
 100 }
 [101] 6, 3, and 1 pdrs. Hotchkiss breech mechanism, marks 1 and 2.
 Nov. 1902. 4°
 [102] Lynch breech mechanism for 6-pounder gun, mark 5. Oct. 1902.
 4°
 [103] 6-pdr. S. A. mark 7 breech mechanism, Maxim semi-automatic
 R. F. type of breech action. May, 1903. 4°
 104 }
 105 } [Not issued up to Dec. 31, 1909.]
 106 }
 [107] 6-pdr. R. F. gun mount, marks 4 and 7, semi-automatic, general
 arrangement. Sept. 1903. 4° [Mark 4 was formerly marks
 1 and 2.]
 108 }
 109 } [Not issued up to Dec. 31, 1909.]
 110 }
 111 }
 112 }
 113 }
 114 }
 115 }
 116 } [Not issued up to Dec. 31, 1909.]
 117 }
 118 }
 119 }
 120 }
 121 }
 122 }
 123 }
 124 }
 125 }
 [126] Details of gun construction, main battery. May, 1903. 4°
 127 }
 128 } [Not issued up to Dec. 31, 1909.]
 129 }
 130 }
 [131] 3-inch gun, mark 4, formerly mark 2, 50 calibers, with B. M.
 Sept. 1902. *
 [132] 3-inch gun, mark 3, 50 cal. Dec. 1903. 4°
 133 } [Not issued up to Dec. 31, 1909.]
 134 }
 [135] 3-inch breech mechanism, mark 1, field guns, Fletcher type.
 Jan. 1903. 4°
 136 }
 [137] 3-inch breech mechanism, mark 2, formerly mark 1, 50-caliber
 guns mark 1. Nov. 1902. 4° [Superseded by Ordnance
 pamphlet 139.]
 138 }
 [139] 3-inch breech mechanism, mark 3, for 3-inch gun, mark 3, for-
 merly mark 1. Jan. 1904. 4° [Supersedes Ordnance pam-
 phlet 137.]
 140 }
 141 } [Not issued up to Dec. 31, 1909.]
 142 }
 [143] 3-inch mount, mark 2, for 3-inch 50-caliber gun, mark 2. Nov.
 1903. 4°

Classification no. **N18. ORDNANCE BUREAU—Continued**

- N18.7: Ordnance pamphlets—Continued**
- (nos.) 144 [Not issued up to Dec. 31, 1909.]
- [145] 3-inch pedestal mount, mark 3, including mark 3, mod. 1 and 2 mounts. Apr. 1903. 4°
- 146 }
147 } [Not issued up to Dec. 31, 1909.]
148 }
149 }
- [150] Description of 4-inch guns, marks 1-7. Aug. 1902. 4°
- 151 [Not issued up to Dec. 31, 1909.]
- 152 }
153 }
- [154] 4-inch mark 2 breech mechanism. Oct. 1902. 4°
- 155 }
- [156] 4-inch mark 3 R. F. breech mechanism. Oct. 1902. 4°
- 157 [Not issued up to Dec. 31, 1909.]
- [158] 4-inch mark 4 R. F. breech mechanism, 5-inch mark 3 R. F. breech mechanism, 6-inch mark 4 R. F. breech mechanism, Fletcher type. June, 1903. 4° [See also N18.2:F63.]
- 159 [Not issued up to Dec. 31, 1909.]
- [160] 4-inch mark 6 Welin screw R. F. type of breech mechanism. Dec. 1902. 4°
- 161 }
162 } [Not issued up to Dec. 31, 1909.]
163 }
- [164] 4-inch recoil mounts, marks 2 and 3, and mark 3 modified. Apr. 1903. 4°
- 165 [Not issued up to Dec. 31, 1909.]
- [166] 4-inch mark 4, and mark 4 mod. 3, pedestal mounts. Feb. 1904. 4° [Mark 4 mod. 3 formerly known as 4-inch mount mark 4a.]
- 167 }
168 } [Not issued up to Dec. 31, 1909.]
169 }
- [170] 4-inch pedestal mounts, mark 8, including 4-inch pedestal mounts, mark 8, mod. 1 and 2. Oct. 1903. 4°
- 171 }
172 } [Not issued up to Dec. 31, 1909.]
173 }
- 174 }
- [175] 4.7-inch R. F. breech mechanism, mark M (Maxim-Nordenfelt, mark 1, U. S. N.), mark 2 (Welin). Apr. 1903. 4°
- 176 }
177 } [Not issued up to Dec. 31, 1909.]
- [178] Description of 5-inch guns, mark 1-5. Aug. 1902. 4°
- 179 }
180 }
- [181] 5-inch mark 2 R. F. breech mechanism. Oct. 1902. 4°
- 182 Feb. 1907
- Same. Apr. 1907 *
- 183 }
184 }
- [185] 5-inch mark 5 rapid-fire recoil mount. Sept. 1903. 4°
- 186 }
187 } [Not issued up to Dec. 31, 1909.]
188 }
189 }

Classification no. **N18. ORDNANCE BUREAU**—Continued**N18.7: Ordnance pamphlets—Continued**

- (nos.) [190] 5-inch pedestal mount, mark 8, including 5-inch pedestal mount, mark 8, modification 1. Nov. 1903. 4°
- [191] 5-inch pedestal mount, mark 9, modification 1, and 5-inch mount, mark 9. Jan. 1904. 4°
- 192 Apr. 1907 *
- Same. May, 1907
- 193 *
- 194
- [195] 6-inch guns, mark 1-4, 6. Oct. 1902. 4° [Plate 1 belonging to Ordnance pamphlet 195 and the unnumbered plate belonging to Ordnance pamphlet 212 are erroneously interchanged in the two publications.]
- 196 Apr. 1907 *
- Same. May, 1907
- [197] 6-inch mark 7 gun, 40-caliber, manufactured by Bethlehem Steel Company. Nov. 1903. 4°
- 198
- [199] 6-inch gun, mark 8. Dec. 1904. *
- 200 } [Not issued up to Dec. 31, 1909.]
- 201 }
- 202 }
- 203 }
- [204] 6-inch breech mechanism, mark 3. Dec. 1902. 4°
- 205 [Not issued up to Dec. 31, 1909.]
- [206] 6-inch mark 5 breech mechanism, Elswick. Sept. 1903. 4°
- 207
- [208] 6-inch mark 6 breech mechanism, Vickers quick-fire type of breech mechanism. Oct. 1903. 4°
- 209 } [Not issued up to Dec. 31, 1909.]
- 210 }
- 211 }
- [212] Deck mounts, 6-inch, mark 3. Oct. 1902. 4° [Plate 1 belonging to Ordnance pamphlet 195 and the unnumbered plate belonging to Ordnance pamphlet 212 are erroneously interchanged in the two publications.]
- [213] 6-inch mount, central pivot, mark 4. Dec. 1902. 4°
- [214] 6-inch mark 5 rapid-fire recoil mount. Sept. 1903. 4°
- 215 } [Not issued up to Dec. 31, 1909.]
- 216 }
- [217] 6-inch mount, mark 8, Armstrong pedestal mount. Oct. 1903. 4°
- 218 } [Not issued up to Dec. 31, 1909.]
- 219 }
- 220 }
- 221 }
- 222 *
- [223] 7-inch gun, mark 1, 45-caliber. Sept. 1903. 4°
- [224] 7-inch mark 2 45-caliber gun. Sept. 1903. 4°
- 225 } Same. Apr. 1907
- 226 }
- 227 }
- 228 }
- 229 } [Not issued up to Dec. 31, 1909.]
- 230 }
- 231 }
- 232 }
- 233 }
- 234

N18.7: Ordnance pamphlets—Continued		(nos.)
235		
236		
237		
238		
239		
240	[Not issued up to Dec. 31, 1909.]	
241		
242		
243		
244		
245		
246	May, 1907	
	Same. June, 1907 *	
247	Apr. 1907 *	
	Same. June, 1907	
248		
249	*	
250		
[251]	8-inch guns, mark 1-4. Oct. 1902. 4°	
[252]	8-inch gun, mark 5. Sept. 1903. 4°	
253		
254	[Not issued up to Dec. 31, 1909.]	
255	*	
[256]	8-inch breech mechanism, mark 1 and 2. Oct. 1902. 4°	
[257]	8-inch breech mechanism, mark 3. Feb. 1903. 4°	
[258]	8-inch breech mechanism, mark 4. Feb. 1903. 4°	
[259]	8-inch mark 5 breech mechanism. Dec. 1904. *	
260		
261		
262	[Not issued up to Dec. 31, 1909.]	
263		
[264]	8-inch mark 7 spring-return mount and installation in turrets, 8-inch double ammunition hoist mark 7, 8-inch turrets with turning and controlling gear for mark 7 mount, Indiana, Massachusetts, and Oregon. June, 1903. 4°	
265	*	
[266]	8-inch center-pivot spring-return mounts, marks 10 and 11. June, 1903. 4°	
267		
268	[Not issued up to Dec. 31, 1909.]	
[269]	8-inch ammunition hoist, mark 8, Brooklyn and Iowa. Feb. 1903. 4°	
270		
271	*	
272		
273	*	
[274]	10-inch guns, marks 1 and 2. Nov. 1902. 4°	
275		
276	[Not issued up to Dec. 31, 1909.]	
277		
278		
[279]	10-inch breech mechanism, mark 5, breech-loading rifle. Feb. 1903. 4°	
280		
281		
282	[Not issued up to Dec. 31, 1909.]	
283		
284		

N18. ORDNANCE BUREAU—Continued

Classification
no.

- N18.7: Ordnance pamphlets—Continued**
- (nos.) [285] 10-inch ammunition hoist, mark 2, Amphitrite, Monadnock, and Monterey. Feb. 1903. 4°
- 286 }
287 } [Not issued up to Dec. 31, 1909.]
288 }
- [289] 12-inch guns, marks 1, 2, and 3. Dec. 1902. 4°
- 290
291
292
293
- [294] 12-inch breech mechanism, mark 5. Nov. 1902. 4°
- [295] 12-inch breech mechanism, mark 6. Dec. 1904. *
- 296 }
297 } [Not issued up to Dec. 31, 1909.]
298 }
299 }
- [300] Iowa's 12-inch turrets: 12-inch mark 3 spring-return mount; 12-inch mark 3 ammunition hoist; Loading gear 12-inch mark 3 mount; Handling room; Turret turning and control gear; Hydraulic plant and connections. July, 1903. 4°
- 301
302 [Not issued up to Dec. 31, 1909.]
303 *
- [304] 13-inch guns, marks 1 and 2. Dec. 1902. 4°
- 305 [Not issued up to Dec. 31, 1909.]
- [306] 13-inch breech mechanism, mark 1 B. L. R. Feb. 1903. 4°
- [307] 13-inch breech mechanism, mark 2. Nov. 1902. 4°
- 308 }
309 } [Not issued up to Dec. 31, 1909.]
- [310] 13-inch spring-return mount, mark 4, Illinois, Alabama, and Wisconsin. Jan. 1905. *
- 311
312
313 }
314 } [Not issued up to Dec. 31, 1909.]
315 }
- [316] Nomenclature of U. S. navy torpedoes, etc. [Apr. 1905. *
- 317 * [Confidential. See, for addendum, Ordnance pamphlet 319.]
318 *
319
- [320] Description of Bliss-Leavitt 5m. X 21-inch mark 1 torpedo. May, 1905. * [See, for addendum, Ordnance pamphlet 321.]
- 320 Same. Aug. 1907 4° [Supersedes Ordnance pamphlet 320, May, 1905, and Ordnance pamphlet 321.]
- 321 [Superseded by Ordnance pamphlet 320, Aug. 1907.]
- [322] U. S. navy torpedo gyro gears, mark 1, and mark 1, model 1. Apr. 1905. *
- 323 [Not issued up to Dec. 31, 1909.]
- [324] Bliss-Leavitt gyro gear, mark 3. July, 1905. * [Confidential.]
- 325 [Not issued up to Dec. 31, 1909.]
- [326] 18-inch submerged torpedo tube. Nov. 1903. 4°
- 327 * [Confidential.]
- 328 [Not issued up to Dec. 31, 1909.]
- 329
- [330] Bliss type 3 compressor, single steam cylinder, three-stage air compression. Mar. 1903. 4°

Classification no. **N18. ORDNANCE BUREAU—Continued**

N18.7: Ordnance pamphlets—Continued

(nos.)	331 [Not issued up to Dec. 31, 1909.]
	332
	[333] Rand type 5 air compressor. Apr. 1903. 4°
	[334] Mark 3 air compressor. July, 1905. 4°
	335 *
	336
	[337] Countermines. May, 1905. * [Confidential.]
	338 } [Not issued up to Dec. 31, 1909.]
	339 }
	[340] Naval defense mine. May, 1905. * [Confidential.]
	341 * [Confidential.]
	342 [Not issued up to Dec. 31, 1909.]
	343
	344 *
	345 * [Confidential.]
	346 } [Not issued up to Dec. 31, 1909.]
	347 }
	348 }
	349 *
	350 *
	351 }
	352 }
	353 }
	354 }
	355 } [Not issued up to Dec. 31, 1909.]
	356 }
	357 }
	358 }
	359 }
	360

N18.8: Naval ordnance papers

(nos.) [The series title and numbers for the publications entered below are carried on the cover.]

- [1] Gunpowder as element in problem of modern ordnance, influence of density on its explosive action, and densimeter, its uses and adjustments; [with] Prismatic powder, lecture delivered before scientific society at Pola, by Captain Monfroni, translated from German by William M. Folger. 1872.
- 2 Pressure and impact of guns. [1872?]
- [3] Mode of fabricating 15-inch guns contracted for with Knap Fort Pitt Foundry, Pittsburgh, Pa., 1870 and 1871; [by Robert F. Bradford]. 1872.
- [4] Determination of time of flight of projectiles by means of electric clepsydra, by P. Le Boulengé; translated by J. D. Marvin. 1873.

[Discontinued.]

N19. STEAM ENGINEERING BUREAU

Established under act to reorganize Navy Department approved July 5, 1862 (Stat. L. v. 12, p. 510.)

N19.1: Annual reports

(date) [No report was made for 1863, estimates only being submitted. 1864-1909, in annual reports of Navy Department (N1.1:), and usually issued separately also.]

N19.1^a: Annual reports (separates)

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