

**CHAP. 1028.**—An act making appropriations for fortifications and other works of defense, for the armament thereof, for the procurement of heavy ordnance for trial and service, and for other purposes.

September 22, 1888.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the appropriations hereinafter provided for shall be available until expended and shall be expended under the direct supervision of a board to consist of the commanding General of the Army, an officer of Engineers, an officer of Ordnance, and an officer of Artillery, to be selected by the Secretary of War, to be called and known as the Board of Ordnance and Fortification; and said Board shall be under the direction of the Secretary of War and subject to his supervision and control in all respects, and shall have power to provide suitable regulations for the inspection of guns and materials at all stages of manufacture to the extent necessary to protect fully the interests of the United States, and generally to provide such regulations concerning matters within said Board's operations as shall be necessary to carry out to the best advantage all duties committed to its charge: *Provided,* That subject to the foregoing provisions the expenditure shall be made by the several bureaus of the War Department having jurisdiction of the same under existing law.

Fortifications appropriations.  
To be available till expended.

Board of Ordnance and Fortification.

Duties.

*Proviso.*  
Expenditures.

**SEC. 2.** That the sums of money herein provided for be, and the same are hereby, appropriated, out of any moneys in the Treasury not otherwise appropriated, namely:

For the protection, preservation, and repair of fortifications and other works of defense, one hundred thousand dollars. For the construction of sea-walls, and for earth embankments, one hundred and seventeen thousand dollars.

Protection, etc., of fortifications.

For torpedoes for harbor defense; the purchase of submarine mines and necessary appliances to operate them; for needful casemates, cable-galleries, and appliances to render it possible to operate submarine mines; for continuing torpedo experiments; for practical instruction of engineer troops in detail of the service, and for the purchase of movable submarine torpedoes controlled at will by power transmitted from shore stations, two hundred thousand dollars.

Torpedoes.

**SEC. 3.** For the completion of the guns now under fabrication by the Ordnance Department and for testing the same, and for the manufacture or purchase and test of cannon and carriages, including carriages manœuvred by power, one of which shall be a disappearing carriage, and also including those for the field and siege services; for the alteration of carriages on hand to adapt them to improved service guns; for projectiles, powders, fuzes, and implements, their trial and proof; for experiments in the means of protecting torpedo lines; for compensation of draughtsmen while employed in the Army Ordnance Bureau on ordnance construction, and for the necessary expenses of ordnance officers while temporarily employed at the proving-ground and absent from their proper stations, at the rate of two dollars and fifty cents per diem while so employed, five hundred thousand dollars, and not more than ten thousand dollars of said sum shall be expended for providing increased facilities for the manufacture of projectiles; for examining, testing, and experimenting with pneumatic or other dynamite guns, gun-carriages, aerial torpedoes, dynamite shells and ammunition, and batteries for coast defense, whether sunken, counterpoise, or otherwise, brought to the notice of said Board, one hundred thousand dollars, or so much thereof as may be deemed proper: *Provided,* That all material purchased under this section, excepting samples, shall be of American manufacture.

Manufacture, tests etc., of guns, etc.

Expenses.

*Proviso.*  
Materials.

**SEC. 4.** For the erection, purchase, or manufacture of the necessary buildings and other structures, machinery, tools, and fixtures for an army gun-factory for finishing and assembling heavy ordnance, to be erected at the Watervliet Arsenal, West Troy, New York, seven hundred thousand dollars: *Provided,* That not exceeding twenty

Army gun-factory to be established at Watervliet Arsenal.

*Proviso.*

Officers' quarters.	thousand dollars of this sum may be used for the erection and completion of two sets of officers' quarters.
Purchase of steel for coast-defense guns.	For the purchase of rough-finished, oil-tempered, and annealed steel for high-power coast-defense guns of eight, ten, and twelve inch caliber, in quality and dimensions conforming to specifications, subject to inspection at each stage of the manufacture, and including all the parts of each caliber, one million five hundred thousand dollars: <i>Provided</i> , That no money shall be expended except for steel accepted and delivered, and no contract shall be made hereunder for gun steel at a greater average price per pound for each caliber than the lowest average price paid under contracts hitherto made by the Government for American forgings of like caliber.
<i>Proviso.</i>	The material for the guns provided for herein shall be purchased in accordance with section thirty-seven hundred and nine, Revised Statutes, for which purpose the Secretary of War is authorized to make contracts with responsible steel manufacturers, who shall be resident citizens of the United States, after proper advertisement, continuing not less than thirty days in the newspapers most likely to reach the said manufacturers: <i>Provided</i> , That each bidder with whom such contracts shall be made, shall have, or agree to erect, in the United States a suitable plant, including the best modern appliances, capable of making all the steel required, and of finishing it in accordance with the contracts, and shall further agree to deliver yearly a specified quantity of each caliber, the time of the delivery of the steel for the smaller calibers of heavy guns to commence at the expiration of not more than eighteen months, and that for the largest calibers, specified in the advertisement, at the expiration of not more than three years from the date of the acceptance of the contracts; and that all the tools, machines, and material for said guns shall be manufactured in the United States.
Price.	SEC. 5. For the purchase of the material for, and the manufacture of, twelve inch breech-loading rifled mortars of cast-iron, hooped with steel, of about thirty-two thousand pounds weight, similar to, and equal in range, power, and accuracy of fire to the twelve inch breech-loading mortar, cast-iron, steel-hooped, now at the Ordnance proving-ground, Sandy Hook, New Jersey, said mortars to be subject to inspection in all stages of manufacture, two hundred and fifty thousand dollars.
Contracts for material. R. S., sec. 3709, p. 733.	SEC. 6. Whenever any party shall present for test a completed cast-iron breech-loading mortar of twelve inches caliber, of about thirty-two thousand pounds weight, with a proper supply of ammunition therefor, not exceeding two hundred rounds, such mortar shall be tested in the presence of the party presenting the same, and should it be shown to the satisfaction of the Board by such tests to be equal in accuracy, range, power, endurance, material, and general efficiency to the twelve-inch cast-iron steel-hooped breech-loading mortar now at Sandy Hook, the mortar and ammunition shall be paid for, including cost of transportation, and contract be made for a further supply of not less than fifty, and not more than one hundred, at such reasonable cost as the Board herein provided for shall determine, not to exceed six thousand five hundred dollars each. The entire number to be delivered in one year from date of contract. Said mortar and all which may be contracted for under this provision shall be subject to inspection at each stage of manufacture.
<i>Proviso.</i> Agreements with bidders.	Whenever any party shall present for test a completed single-charge breech-loading steel gun of ten or twelve inches caliber, and of weight and dimensions to be prescribed by the Board with the proper supply of ammunition for the test of the same, such gun shall, in the presence of the party presenting it, be subjected to such tests as the Board shall have prescribed; and should such gun be shown to the satisfaction of the Board by such tests to fulfil the requirements previously prescribed in respect to accuracy, range,
Cast-iron mortars.	
Tests of mortars.	
Contracts for purchase.	
Tests of steel guns.	

power, endurance, and general efficiency, the gun and ammunition shall be paid for at a fair valuation, including cost of transportation, and contract shall be made at a price reasonable in the opinion of the Board, with the party presenting the best of such guns, for a further supply of similar guns, to be subjected to the usual service test before acceptance, the experimental gun and all guns purchased hereunder to be subject to inspection at each stage of manufacture, as follows, namely: For not less than fifty ten-inch steel guns; and for not less than fifty twelve-inch steel guns.

Contracts for purchase.

The Board is authorized to make all needful and proper purchases, investigations, experiments, and tests, to ascertain with a view to their utilization by the Government, the most effective guns, including multicharge guns and the conversion of Parrott and other guns on hand, small arms, cartridges, projectiles, fuzes, explosives, torpedoes, armor-plates, and other implements and engines of war; and the Secretary of War is hereby authorized to purchase or cause to be manufactured, such guns, carriages, armor-plates, and other war materials and articles as may, in the judgment of said Board, be necessary in the proper discharge of the duty herein devolved upon them: *Provided*, That the amount expended and liabilities incurred in such purchases, investigations, experiments, and tests shall not exceed five hundred thousand dollars which sum is hereby appropriated: *Provided further*, That said Board shall test, and if found satisfactory, shall purchase two breach loading field guns of three and two tenths inch bore of aluminum bronze.

Investigations by the Board.

*Proviso.*  
Limit of expenses.

Aluminum bronze guns.

Maximum expenditure.

That under the provisions of this section there shall not be expended or contract or contracts entered into involving the Government in an aggregate expenditure exceeding six million five hundred thousand dollars, nor an expenditure on the part of the Government in any one fiscal year in excess of two million dollars, and all guns and materials purchased under authority of this section shall be of American production and furnished by citizens of the United States.

For payment of the necessary expenses of the Board including a per diem allowance to each member thereof when employed on duty away from his permanent station, of two and one-half dollars a day, five thousand dollars, or so much thereof as may be necessary.

Expenses of Board.

Approved, September 22, 1888.

**CHAP. 1037.**—An act to amend section twelve hundred and twenty-five of the Revised Statutes, concerning details of officers of the Army and Navy to educational institutions, and so forth.

September 26, 1888.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That section twelve hundred and twenty-five of the Revised Statutes of the United States, as amended by an act of Congress approved July fifth, eighteen hundred and eighty-four, be, and the same is hereby, further amended, so as to read as follows:

Detail of officers to educational institutions.  
R. S., sec. 1225. p. 216, amended.  
Vol. 23, p. 108.

“**SEC. 1225.** The President may, upon the application of any established military institute, seminary or academy, college or university, within the United States having capacity to educate at the same time not less than one hundred and fifty male students, detail an officer of the Army or Navy to act as superintendent, or professor thereof; but the number of officers so detailed shall not exceed fifty from the Army, and ten from the Navy, being a maximum of sixty, at any time, and they shall be apportioned throughout the United States, first, to those State institutions applying for such detail that are required to provide instruction in military tactics under the provisions of the act of Congress of July second, eighteen hundred and sixty-two, donating

Officers to institutions.

Limit.

Army.

Navy.