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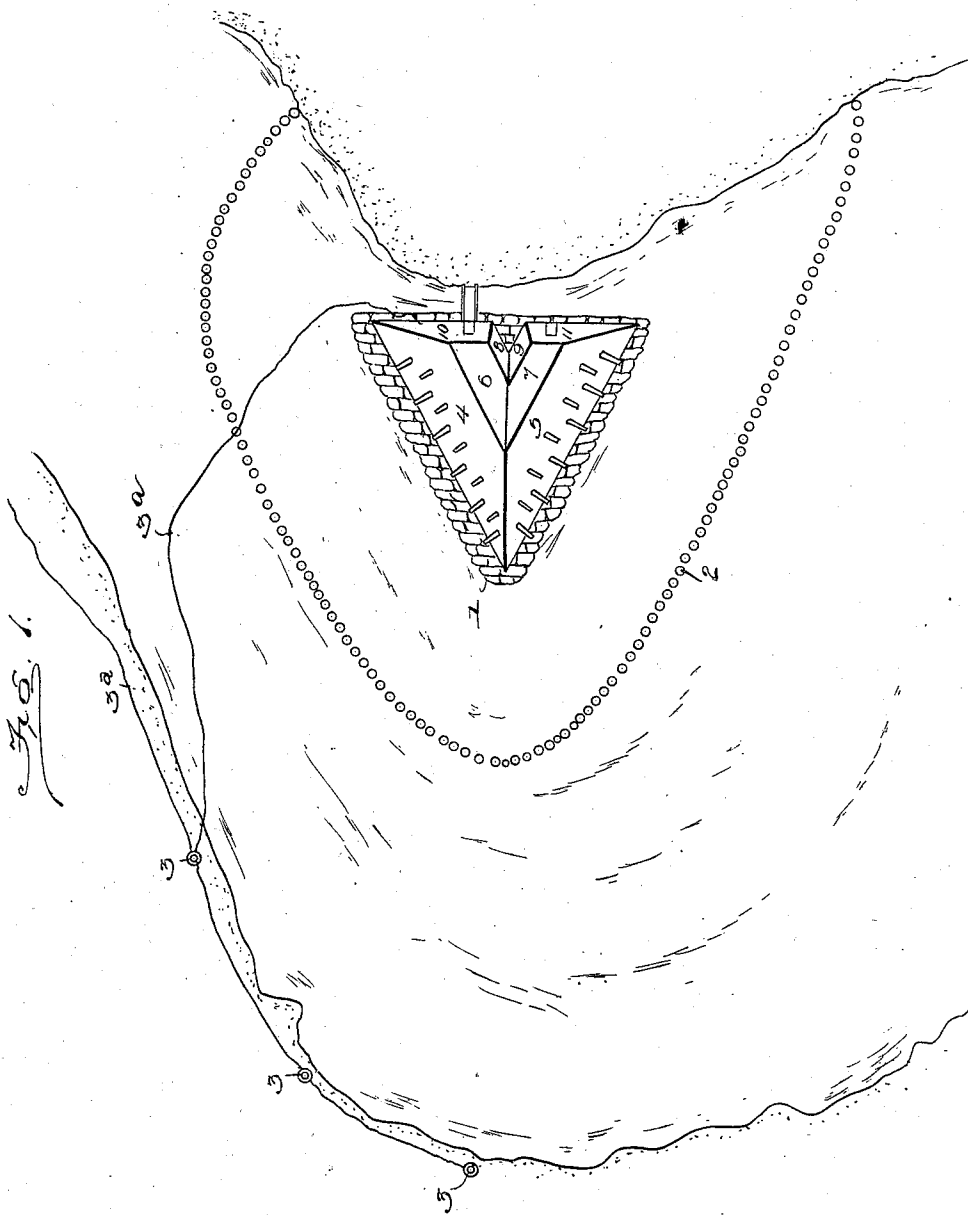
Patented June 10, 1902.

P. J. NELSON.  
CONSTRUCTION OF FORTS.

(Application filed Aug. 21, 1901.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses  
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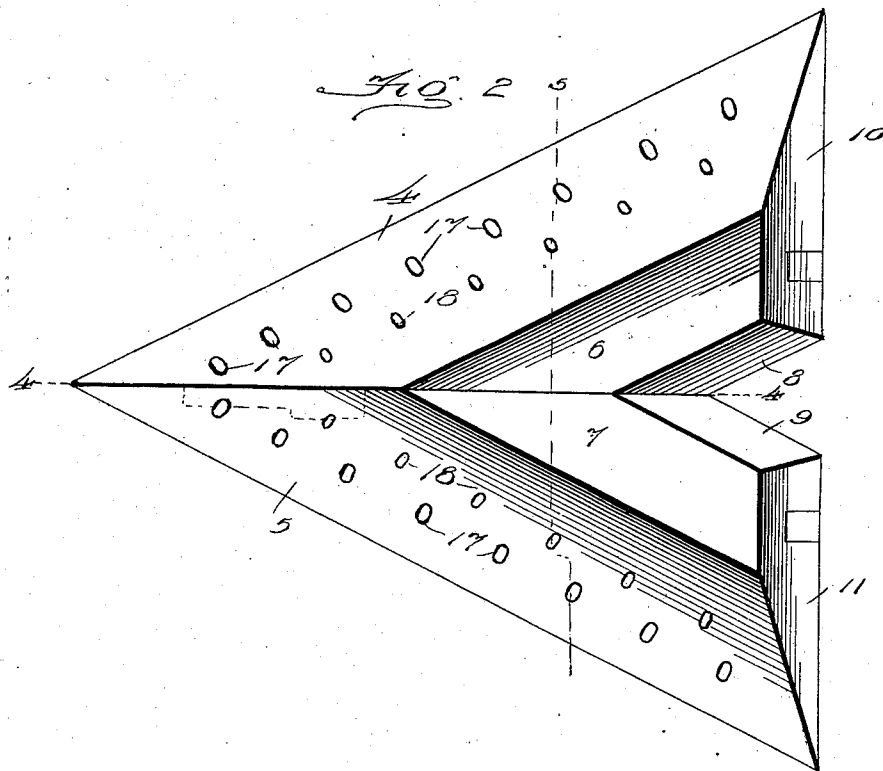
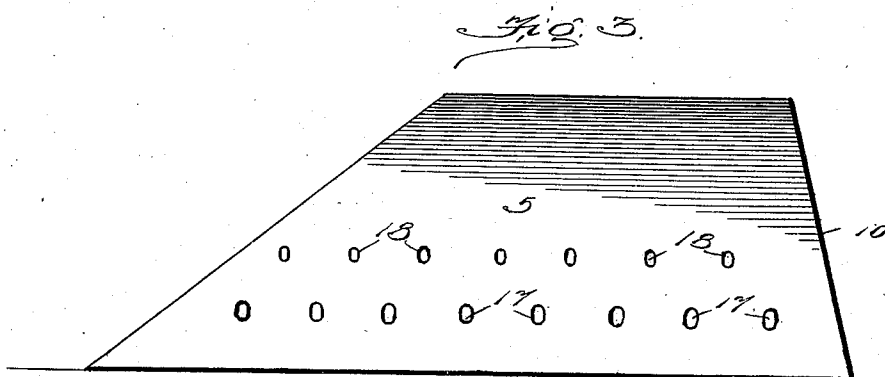
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(No Model.)

3 Sheets—Sheet 2.



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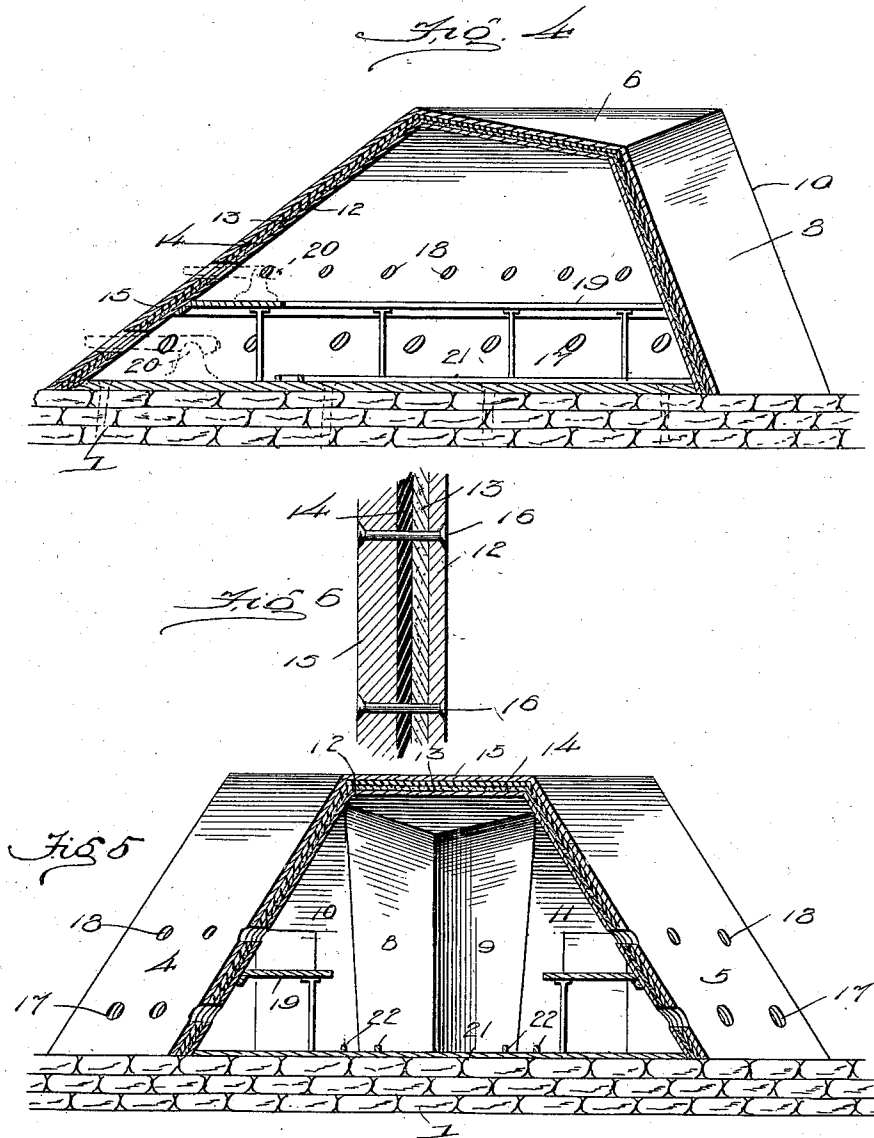
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3 Sheets—Sheet 3.



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# UNITED STATES PATENT OFFICE.

PETER J. NELSON, OF BALTIMORE, MARYLAND.

## CONSTRUCTION OF FORTS.

**SPECIFICATION** forming part of Letters Patent No. 701,922, dated June 10, 1902.

Application filed August 21, 1901. Serial No. 72,837. (No model.)

*To all whom it may concern:*

Be it known that I, PETER J. NELSON, a citizen of the United States, residing at 248 Washington street, Baltimore, in the State of Maryland, have invented new and useful Improvements in the Construction of Forts, of which the following is a specification.

My invention relates to improvements in the construction of forts or fortifications especially designed for the defence of harbors.

A primary object of the invention is to provide a composite structure which will be practically proof against ammunition.

A further object of the improvement is to provide within the structure convenient means for the transportation of ammunition.

These and such other objects as may be disclosed hereinafter are effected by the construction illustrated in the accompanying drawings and specifically described in connection with them and defined in the appended claims.

In the drawings, Figure 1 is a diagram showing a plan view of the fort and the arrangement with relation thereto of the barricade of piles and the search-lights employed as a feature of the improvement. Fig. 2 is a plan view of the fort on an enlarged scale. Fig. 3 is a side elevation of the same. Fig. 4 is a vertical section on the line 4 4 of Fig. 2. Fig. 5 is a transverse section on the line 5 5 of Fig. 2. Fig. 6 is a sectional view, on an enlarged scale, illustrating the construction of the composite armor-plate from which the fort is constructed.

As illustrated in Fig. 1, the fort is designed to be located at the entrance of a harbor, and is supported upon a substructure of masonry, designated by the reference-numeral 1. At a distance of two miles, more or less, from the fort is arranged a continuous series of piles 2, forming a barricade, which incloses the fort and protects it from torpedoes or torpedo-boats, either on the surface or submerged.

The numeral 3 designates a plurality of electric lights located at a distance from the fort along the shore-line and being connected by an electric circuit 4 with the fort, as shown in Fig. 1.

Referring now particularly to Fig. 2, it will be seen that the general contour of the fort

structure approximates the shape of a half-diamond, the side walls 4 and 5 of which are oppositely inclined to present oblique surfaces, thereby preventing a shot from striking the fort squarely. From the upper edges of the sides 4 and 5 the roof of the structure is inclined downward, forming the oblique surfaces 6 and 7, and from the rear edges of the roof-sections 6 and 7 extend the inclined rear walls 8 and 9, which are connected to the ends of the sides 4 and 5 by inclined walls 10 and 11. The structure is composed of an inner layer 12 of steel of about six inches in thickness, an adjoining layer 13 of the same thickness of paper, an outer layer 15 of about eighteen inches in thickness of steel, and a layer 14 of rubber interposed between the layers 13 and 15. These several layers or thicknesses of material are firmly bolted together by bolts 16.

As clearly shown in the several views of the drawings, the side walls 4 and 5 are each formed with two horizontal rows of port-holes, designated, respectively, by the numerals 17 and 18.

Within the fort and extending along the sides thereof between the two rows of port-holes is a platform 19, upon which are supported guns 20, projected through the upper row of port-holes, as shown by dotted lines in Fig. 4. Below the platform 19 upon the floor 21 another series of guns is placed in position to project through the port-hole 17, as shown by dotted lines in Fig. 4.

Adjacent to the platform 19 I provide a railway-track 22, upon which suitable cars may travel for supplying ammunition to the guns.

The construction provides ample room for the storing of ammunition, and the employment of the search-lights controlled from the fort enables the occupants of the fort to annoy the enemy at night by illuminating at points distant from the fort, while the latter is kept in darkness.

I would have it understood that I reserve the right to make all such changes and modifications in the details of construction as may properly fall within the scope of the invention as outlined in the following claims.

I claim—

1. A fortification structure having its roof and side walls inclined at varying angles, a

platform within the structure, a plurality of rows of port-holes and a search-light having an electric connection with the structure.

2. A fortification structure comprising a  
5 base of masonry and inclined top and sides formed of a composite plate consisting of inner and outer layers of steel, a layer of paper adjoining the inner steel layer and a layer of rubber interposed between the outer steel  
10 layer and the layer of paper.

3. A fortification structure comprising oppositely-inclined side walls, a roof inclined at

different angles, thereby avoiding the exposure of flat surfaces to the fire of the enemy, a platform located within the structure and  
15 tracks adjacent to said platform for the transportation of ammunition.

In testimony whereof I affix my signature in presence of two witnesses.

PETER J. NELSON.

Witnesses:

JOHN S. MARQUETTE,  
E. WALTON BREWINGTON.