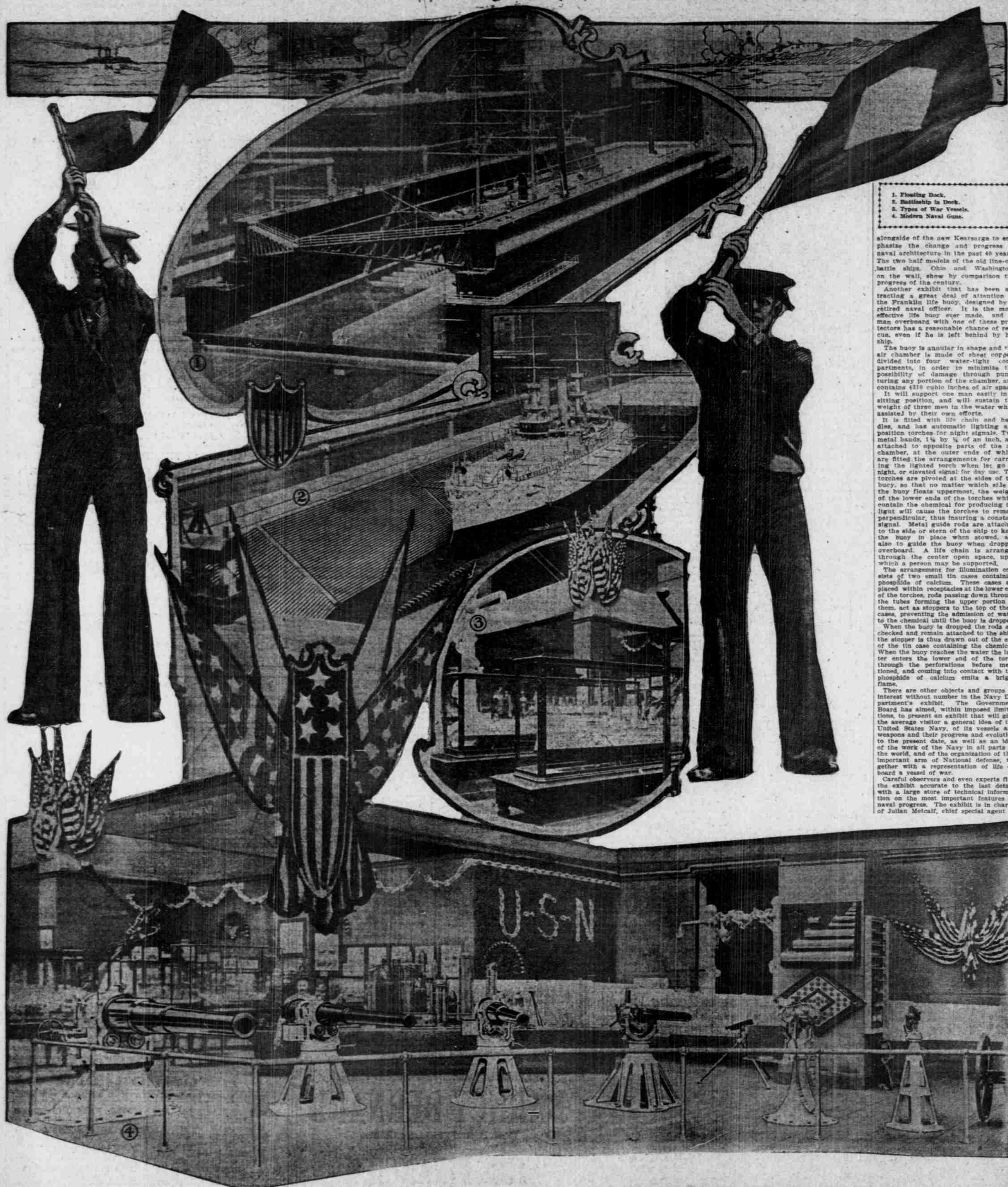


EXHIBIT OF UNCLE SAM'S NAVAL POWER

Important Arm of National Defense Fully Represented in Fine Government Exhibit at Exposition.



1. Floating Dock.
2. Battleship in Dock.
3. Types of War Vessels.
4. Modern Naval Gun.

alongside of the new Kearsarge to emphasize the change and progress in naval architecture in the past 40 years. The two half models of the old line-of-battle ships, Ohio and Washington, on the wall, show by comparison the progress of the century.

Another exhibit that has been attracting a great deal of attention is the Franklin life buoy, designed by a retired naval officer. It is the most effective life buoy ever made, and a man overboard with one of these protectors has a reasonable chance of rescue, even if he is left behind by his ship.

The buoy is annular in shape and the air chamber is made of sheet copper, divided into four water-tight compartments, in order to minimize the possibility of damage through puncturing any portion of the chamber, and contains 419 cubic inches of air space. It will support one man easily in a sitting position, and will sustain the weight of three men in the water when assisted by their own efforts.

It is fitted with life chain and handles, and has automatic lighting and position torches for night signals. Two metal bands, 1 1/2 by 1/4 of an inch, are attached to opposite parts of the air chamber, at the outer ends of which are fitted the arrangements for carrying the lighted torch when let go at night, or elevated signal for day use. The torches are pivoted at the sides of the buoy, so that no matter which side of the buoy floats uppermost, the weight of the lower ends of the torches which contain the chemical for producing the light will cause the torches to remain perpendicular, thus insuring a constant signal. Metal guide rods are attached to the side or stern of the ship to keep the buoy in place when stowed, and also to guide the buoy when dropped overboard. A life chain is arranged through the center open space, upon which a person may be supported.

The arrangement for illumination consists of two small tin cases containing phosphide of calcium. These cases are placed within receptacles at the lower end of the torches, rods passing down through the tubes forming the upper portion of them, act as stoppers to the top of these cases, preventing the admission of water to the chemical until the buoy is dropped.

When the buoy is dropped the rods are checked and remain attached to the ship; the stopper is thus drawn out of the end of the tin case containing the chemical. When the buoy reaches the water the latter enters the lower end of the torch through the perforations before mentioned, and coming into contact with the phosphide of calcium emits a bright flame.

There are other objects and groups of interest without number in the Navy Department's exhibit. The Government Board has aimed, within imposed limitations, to present an exhibit that will give the average visitor a general idea of the United States Navy, of its vessels and weapons and their progress and evolution to the present date, as well as an idea of the work of the Navy in all parts of the world, and of the organization of this important arm of national defense, together with a representation of life on board a vessel of war.

Careful observers and even experts find the exhibit accurate to the last detail, with a large store of technical information on the most important features of naval progress. The exhibit is in charge of Julian Metcalf, chief special agent of

AMONG the most interesting things shown in the big United States Navy exhibit at the Lewis and Clark Exposition are specimens of the guns with which Uncle Sam upholds the honor of his Navy and the rights of his territory when the occasion necessitates. Every modern and effective gun, projectile and shell used by the Navy are shown, and the guns are attended by Government attaches, who operate and explain the mechanism of the weapons for the information of Exposition visitors. In the collection of cannon and rapid-

fire guns is a sectional model of a 15-inch cannon—the largest weapon used by battleships. Several of the biggest battleships of the Navy, including the Oregon, are fitted up with the mammoth weapons, which fire a projectile weighing 130 pounds. This is the only model, the others being real guns. The enormous weight prohibited the shipment of a 15-inch gun here, and the model was therefore sent in place of it. There are two three-inch guns, a six-pounder, a five-inch gun, a Colt's automatic rapid-fire gun, and several smaller weapons.

In the same section of the exhibit are shown torpedoes, which the Russo-Japanese war have brought forward as one of the greatest fighting forces in modern naval warfare. The torpedoes are of the Whitehead variety, and were constructed for the Government by a private firm. The Whitehead torpedo is composed chiefly of steel, and is cigar-shaped. It is made in five sections, but dismounted and assembled in four principal parts: the head, air tank, and immersion chamber, after body and tail, all fitted together with sleeve joints and held together by joint screws. The motive power of the torpedo is compressed air. It is propelled by two two-bladed screws revolving

about the same axle in opposite directions, in order to neutralize their individual tendencies to cause the torpedo to roll. The torpedo is maintained at constant depth by horizontal rudders, and on a straight course by vertical vanes set at an angle predetermined by experiment; or by movable vertical rudders controlled by an arrangement known as the "Obry" gear, which consists, essentially, of a gyroscope controlling the motion of the valves of the steering engine. This particular torpedo is fitted with an exercise head, which is of steel, intended for drill

fresh water. Weight of torpedo, ready for discharge, with loaded war head, about 1200; weight of wet gun cotton, approximately, 112 pounds; length of torpedo, five meters, or 16 feet 5 inches; greatest diameter, 55 centimeters, or 17 1/2 inches; speed, about 30 knots; range (at 24 knots' speed), about 1500 yards. Torpedobombs are also shown in accurate models set in glass cases. These models, as well as reproductions of the Navy's greatest battleships, are made by the Bureau of Construction and Repair. Models are also shown of the old sloop-of-war Kearsarge and two half models of old—gracious—line-of-battle

ships of a century back—the Washington and Ohio. Then there is a model of the unarmored steel submarine torpedobomb Holland. The models are of wood and are accurate reproductions of the vessels themselves, made complete in every detail and bear the minutest inspection. Five of the number that took part in the battle of Santiago are grouped at the north end of the hemicycle, namely, the Oregon, Iowa, Texas, New York and Brooklyn; and two that took part in the battle of Manila Bay are grouped at the other end, namely, the Olympia and Baltimore. The old Kearsarge is placed

the Navy Department for the Lewis and Clark Exposition.

Missed a Treat.

Washington Post.

A Sioux Indian in South Dakota invited Senator Kittredge, of that state, to the wedding of his daughter. Senator Kittredge was unable to be present at the nuptial event, but the Indian laconically described the affair, subsequently to illustrate what the Senator had missed. "Four dogs," said Poor Lo, "and plenty of meat."