

THE LARGEST OF OUR NEW WAR SHIPS.

Larger by about fifteen hundred tons than any vessel ever before launched from a United States shipyard, the new cruiser New York, named in honor of the Empire State, smoothly slipped from her ways at the Cramp shipyards into the waters of the Delaware, on Wednesday, December 2. The launch as an interesting spectacle, and one invoking a degree of patriotic ardor, was in every way a splendid success. It was viewed by scores of thousands, and there were numerous representatives present from the highest official circles. The shipyard where the launch took place has acres of shops amply provided with lathes, forges, furnaces, derricks, etc., and three other formidable ships for the new navy now being built there, on which the work is well advanced, contributed not a little to the feeling of unalloyed satisfaction which the occasion brought out.

The new ship is said to have been the especial pride of the Navy Department, having great offensive and defensive qualities, a high rate of speed, and great coal endurance, and it was remarked, as she lay on the ways, that her sharp, graceful lines suggested the speedy transatlantic liner rather than a ship of war. Three firms bid for the construction of this vessel, as follows: Class 1. Hull and machinery, including engines, boilers and appurtenances, complete in all respects in accordance with the plans and specifications provided by the Navy Department—William Cramp & Sons, of Philadelphia, \$3,150,000; Union Iron Works, of San Francisco, \$3,100,000; Risdon Iron and Locomotive Works, San Francisco, \$3,450,000. Class 2.

Hull and machinery, including engines, boilers and appurtenances, complete in all respects in accordance with the plans and specifications provided by the bidder, guaranteeing strength of materials, displacement, speed, etc.—Union Iron Works, of San Francisco, \$3,000,000; William Cramp & Sons, of Philadelphia, \$2,985,000. The proposal of William Cramp & Sons to build the vessel, under the second classification, for \$2,985,000, being the lowest received was accepted, and a contract was entered into on August 28, 1890. The modifications included a rearrangement of the boilers, so that additional longitudinal and transverse bulkheads could be fitted in the engine and boiler spaces, thereby affording greater protection to the machinery and making the boilers less vulnerable to attack from rams and torpedoes. The keel was laid on September 30, 1890, and the contract requires that the vessel shall be finished and ready for delivery to the United States on or before January 1, 1893.

The length of the New York is 380 feet and 6½ inches; breadth of beam, 64 feet; mean draught, 23 feet and 3½ inches; displacement, 8,150 tons. Her highest speed is to be 20 knots an hour, and the sustained sea speed 18.5 knots. With 1,500 tons of coal in her bunkers and stored on deck, she will be able to steam 13,000 miles at the rate of 10 knots per hour. She has the ram bows and high freeboard of the large cruisers, but her stern is lighter, indicating the effort to produce a speedy model. Having a high freeboard, her guns may be worked in a seaway, the 8 inch rifles being 25 feet above water. In the absence of sail power, the entire dependence must be on her twin screws. The two masts are for fighting and signaling purposes, and are to be provided with protected tops. She has four

decks, including the protective deck and a flying deck, or bridge, for boats.

The materials used in the construction are of the best quality. The outer steel plating amidships is 23 pounds to the square foot from keel plate to sheer strake, which is 46 pounds. Toward the extremities the outer plating is lighter. Between the protective and berth decks the plating is doubled in the wake of the thin armor. The keel plate is 15 pounds to the square foot, and the plates of the main bulkheads have the same weight. The protective deck at the sides is 4 feet and 9 inches below the water amidships and 1 foot above the water when the vessel is at the mean

Her motive power will be twin screws, driven by four vertical direct-acting triple expansion engines located in four water tight compartments. The diameters of the cylinders of each engine are 32, 46, and 70 inches respectively, and the stroke is to be 42 inches. For the great speed expected the screws must make 129 revolutions a minute. It is estimated that the collective indicated horse power of propelling, air pump and circulating pumps will be 16,000. The steam for the engines is to be supplied by six double ended main boilers arranged two abreast in three water tight compartments, with six athwartship fire rooms. Each is to be fifteen feet six inches in diameter and twenty-one feet three inches in length. They are to be worked under forced draught on the air tight fire room system. The lighting is to be by electricity, and the search lights are to have the latest improvements. She is to be fitted as a flagship, and a large and valuable library is to be given the ship by a New York merchant, while a large sum has been raised to present her with a handsome service of plate.



THE CHACMA.

THE CHACMA OR SOUTH AFRICAN BABOON.

BY NICOLAS PIKE.

Africa is especially the native country of baboons. Of all the quadrumani they are about the ugliest, chiefly those of the genus *Cynocephalus*. A curious fact is that out of over fifty species of apes, monkeys, and baboons inhabiting Africa, there are said to be only one or two known instances of an African species occurring in Asia or an Asiatic one in Africa. The one I am about to write of is the *chacma*, or *C. porcarinus*.

draught. It is covered with two courses of plating, 3 inches in thickness amidships and 2½ inches fore and aft. The slopes amidships have an additional thickness of 3 inches, making a total thickness of 6 inches. In the wake of the machinery is a belt of thin armor between the protective and berthdecks, the total thicknesses of armor on the sides being 6 inches. A coffer dam, 3 feet and 6 inches in depth, between the protective and berth decks, and extending the entire length of the vessel, is to be filled with a water-excluding material.

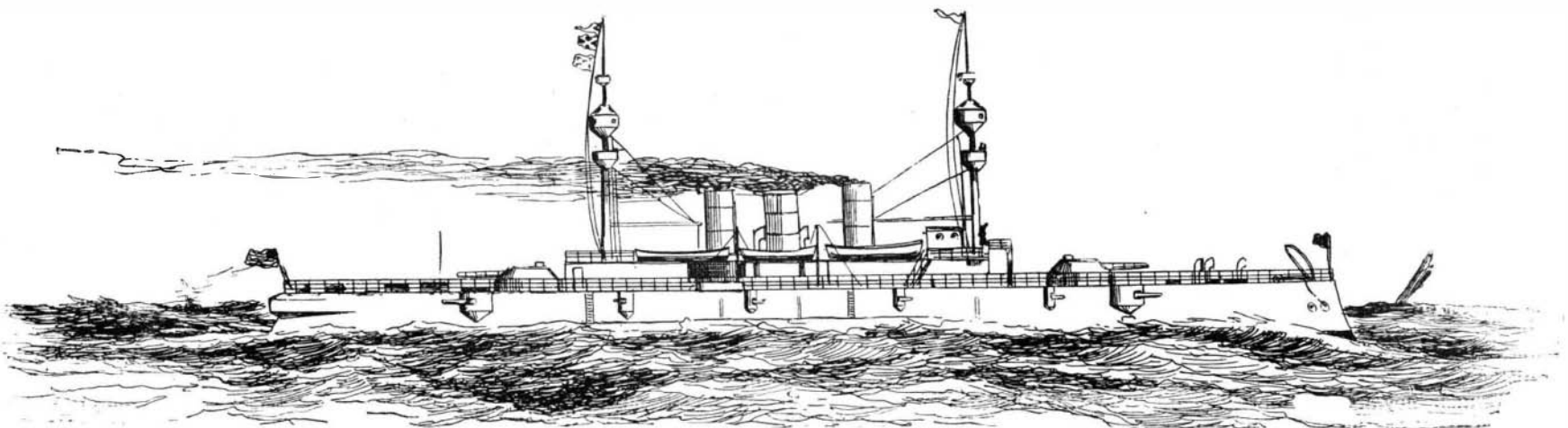
In her armament the main battery is to consist of more but lighter rifles than the Maine's. She is to have six eight inch breech loading rifles and twelve four inch rapid fire guns. In the secondary battery are to be eight rapid fire six pounders, four rapid fire one pounders and four Gatling guns. Of the six torpedo tubes, one is to be in the bows, one in the stern, and two are to be on each broadside.

Two of the eight inch rifles are to be mounted in a barbette forward on the upper deck, two in a similar barbette aft, and two are to be carried in broadside amidship on the upper deck. The men working the rifles in the barbettes are to be protected by ten inches of steel armor, and the revolving conical shields of steel are to be seven inches in thickness. The big rifles amidships are to be protected by partial barbettes two inches in thickness. The four inch guns on the spar deck are to have sponsons four inches in thickness and are to be protected by shields. The men at the six pounders are to be protected by eight inches of armor. The sloping armor beneath the barbettes is to be five inches in thickness, and the ammunition tubes below are to be five inches also.

This animal is met with in most of the southern ranges of mountains from the tropic of Cancer to those of the Cape colony. Even in the great Sneeuwberg range, where snow rests on some of the peaks the year round, troops of baboons are met with quite as numerous as those of the lower forest lands. Table Mountain, so conspicuous a feature rising above Cape Town, and grandly visible as you approach it from the sea, used to swarm with large and formidable troops of these creatures, whence they swooped down on the lands of the poor farmers, doing irreparable damage to their crops. As the country round Cape Town has become settled and many of the baboons been killed, they, like so many other animals, have receded before civilization.

In the kloofs or rocky passes of the mountains, where there is not much traffic, fifty or sixty may be seen stretched out, basking in the sun. At the slightest noise or disturbance they are on the alert and their howlings and screams of defiance resound along the hills. They inhabit the dense forests, also where there are ledges of rock, for their habits and structure prevent their easily climbing trees. They prefer steep overhanging cliffs, and if surprised at their base, readily mount them by clinging to the giant *lianes* that form a network over them. Hand over hand they go up, and many species of these plants go by the name of "bavians touw," or baboon's ropes, from the use they make of them. When half way up and they think they are out of danger, they have an ugly habit of rolling down stones or pieces of rock on the intruder, rendering it no easy matter to escape, if not forewarned.

The local name chacma is taken from an old Hot-



THE NEW ARMORED CRUISER NEW YORK, LAUNCHED DECEMBER 2.