

SPEED TRIAL OF THE BATTLESHIP "OHIO."

The battleship "Ohio," built by the Union Iron Works of San Francisco, received her speed trial at Santa Barbara, California, on Saturday, the 30th of July. Her actual record fell slightly below the requirements of an 18-knot speed, but it is thought probable that when allowances have been made for the tide it will be found that she made fully 18 knots and maybe a trifle more. The course lay from the Santa Barbara Lighthouse to a stake-boat 36 miles up the coast, and return. On the first leg of the course the "Ohio" fully met requirements, rounding the stake-boat with half a minute in her favor, but on the return both wind and tide were against her, and she lost a minute and a half. The trial was attended by Rear Admiral Whiting, who was the government's representative on board, and the builders were represented by Capt. Forsythe. The "Ohio" will probably be given another trial soon, when she is expected to make a better showing.

The battleship "Ohio" is one of the three powerful battleships of the "Maine" class, authorized by Congress on May 4, 1898. Although she was the first of her class to be launched (in May, 1901), she fell behind her sister ships the "Maine" and the "Missouri," which are both in commission, the former since December, 1902. The contract date of completion of the "Ohio" was originally set for June 5, 1901, so that she is over three years behind her contract.

The addition of the "Ohio" to our navy will greatly strengthen our position in the Pacific, for she belongs to the most powerful class of battleships we possess. It will be recalled that it was at first proposed to build these vessels on plans very similar to the "Alabama" class of battleships, which have a speed of about 16 knots per hour, or at least two knots below the average speed of foreign battleships. Owing to the storm of protest aroused by this proposition, it was decided to increase the speed of these vessels to 18 knots. Increased speed required the addition of twenty feet amidships to allow for the increased motive power necessary. This also made room for two more 6-inch guns in the broadside battery, and a larger coal capacity. The "Ohio" has a length of 388 feet, and a beam of 72 feet 3 inches, with a draft of 25 feet 6 inches. Her displacement when fully equipped for service and carrying her normal supply of 1,000 tons of coal will be 12,500 tons, and her full load displacement will be 13,941 tons. The normal displacement of the "Maine" is 12,300 tons, and of the "Missouri" 12,240 tons. The "Ohio," like the "Missouri," is equipped with Thornycroft boilers and twin-screw vertical triple-expansion engines. The "Maine," it will be recalled, is fitted with Niclausse boilers. The main armament of the "Ohio" consists of four 12-inch guns and sixteen 6-inch guns, and she is equipped with two submerged torpedo tubes.

The armor of the "Ohio" consists of a water-line belt of Krupp steel, 11 inches thick at the top and 7½ inches at the bottom. The turrets containing the 12-inch guns have a thickness of 12 inches, and the 6-inch guns are protected by 8-inch armor. The protective deck is covered with 3-inch plate forward and 4-inch plate aft. All the joiner work above the protective deck is of fire-

proofed wood, and, whenever possible, light metal is used for gangways, bridges, and the like, so as to make the vessel thoroughly fireproof. The "Ohio" will have a complement of 699 officers and men.

STRANGE SIGHTS IN THE FAR NORTH.

BY ARTHUR INKERSLEY.

The long winter, the short summer, and the extreme cold are the conditions which are responsible

many places, and in others to a depth of two feet below the surface, he strikes ground that is frozen solid and that remains so both summer and winter. Heat must be applied to soften the frozen ground before the digger can work it. "Burning down" through the frozen ground has been practiced for a long time in the gold fields of Siberia, where similar conditions exist. The process is conducted as follows: Over the prospect shaft, which generally measures three or

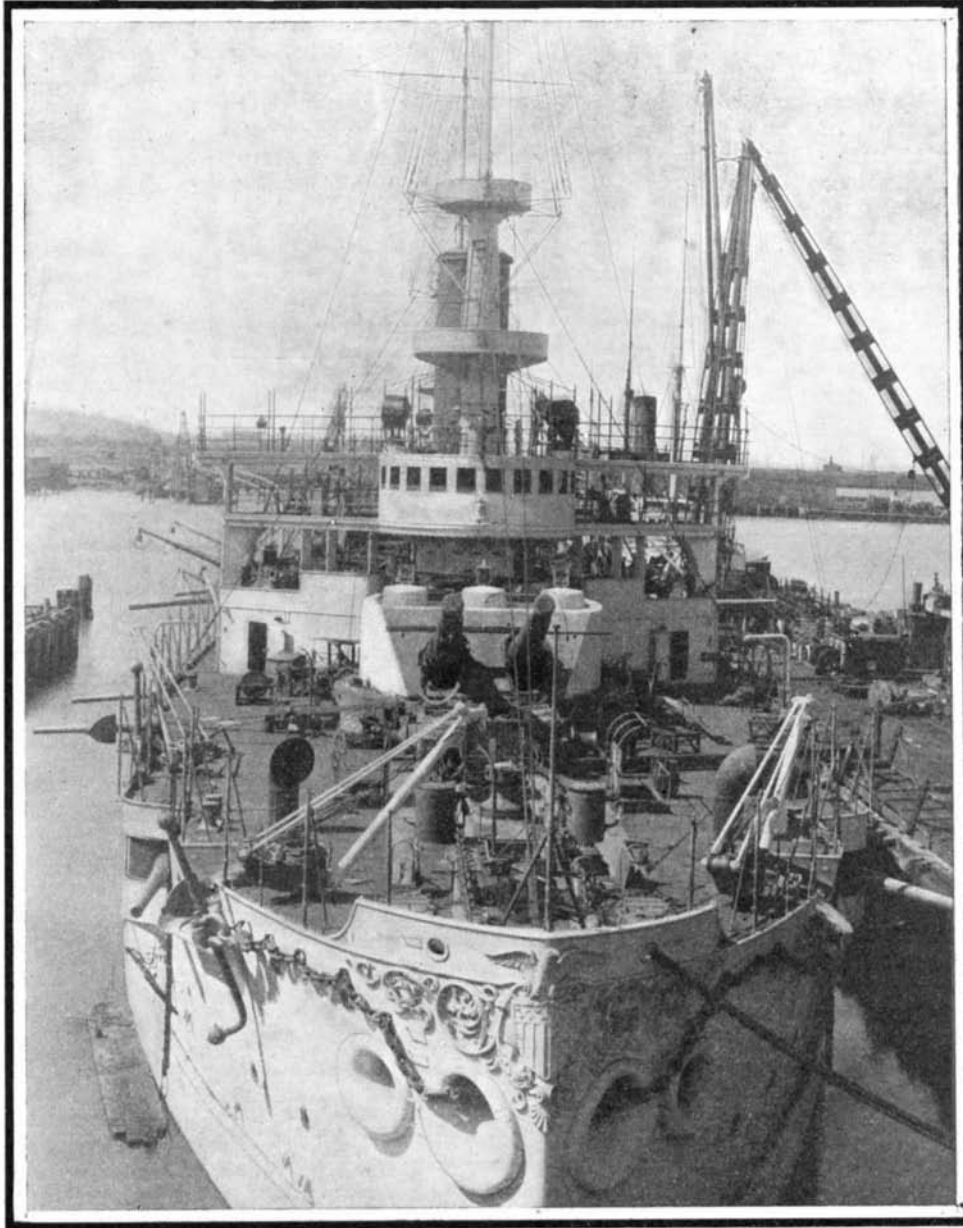
four feet by six feet, a wood fire is made, the heat of which melts the soil to a depth of a few inches, or sometimes of a foot or more. The softened earth is shoveled out, another fire is built, and the operation is repeated until the gold-bearing stratum is removed. The fact that the material dug out of the pit must be hoisted to the surface by a bucket and windlass renders the process of sinking a shaft so slow and tedious that it taxes to the very utmost the patience and endurance of the most industrious miner. The better half of a season may be spent in "burning down" two or three prospect holes. The work is done chiefly during the winter, and the vertical prospect shafts are often united by lateral burning and picking. Not only is the work of tunneling through the frozen ground hard and tiresome, but the eager gold-seeker runs the risk of perishing, like a rat in a hole, from asphyxiation by the noxious gases generated in the process of burning. Many attempts have been made to devise a better method than wood-burning, the most successful of them being to thaw the ground by steam.

The first prospect in what seems to be a likely location is made with the gold-pan. If "colors" appear at first in small quantity and increase as bed-rock is approached, the prospector generally decides to take up the location. If a pan of the gravel when washed shows a few cents of gold, the claim is likely to turn out a valuable one. To use a gold pan properly requires some skill, the slow, rotary movement which produces the best results being very tiring to the wrist; while the rough motion adopted by some miners, either through inexperience or from a desire to make the work less

fatiguing, causes the loss of some of the gold, which escapes in the washing.

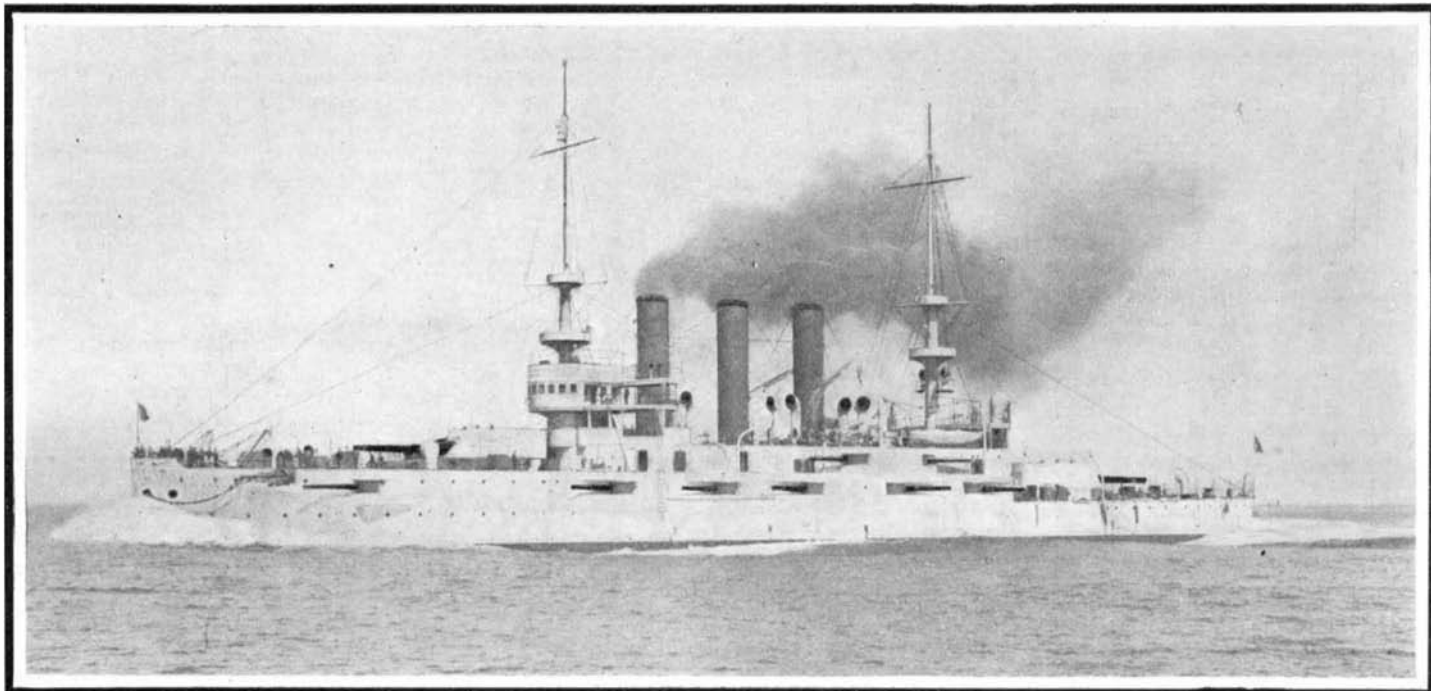
The miners, while digging prospect-holes in the Klondike region, have found from time to time bones which indicate that the animals inhabiting the Yukon region in prehistoric times were very different from those living there at the present day. In some of the creeks in the Klondike region great ivory tusks, evidently from an animal similar to the elephant or mastodon, have been discovered. The tusks vary in length from three to eight feet, some of the largest being ten to twelve inches thick. Though these remains are interesting scientifically, they are of no commercial value except as curiosities, the ivory having turned yellow from age and the long, severe frosts

having cracked it so badly that it is of no use in the arts. These tusks are always found close to bed-rock, buried beneath the frozen gravel at a depth of ten to sixty feet. The miners bring them up to adorn their cabins. The tusks are much curved and on the under side are worn away, giving the impression that the great animals to whom they belonged fed on moss or s w a m p •



DECK OF THE "OHIO."

for most of the strange things to be seen in the Klondike. In temperate or hot countries the process of extracting gold from a placer deposit is extremely simple—if the gold is there. A pick, a shovel, and a pan or rocker are all the implements the gold-digger needs on an Australian, South African, or Californian gold field, and, if the nuggets are large enough to be taken out by hand, the first two will suffice. But in the gold-bearing region of Alaska and the Northwest Territories, the extraction of alluvial gold is by no means so easy a process. Most of the placer deposits in that ice-bound region are in a frozen condition, and it is this fact that makes the extraction of the yellow metal there, as in Siberia, so laborious. After the miner has dug down to the depth of only one foot in



THE "OHIO" MAKING SEVENTEEN AND THREE-QUARTER KNOTS.