

## A New Submarine Vessel.

Great interest is attached to the trials to be shortly made by the United States Navy authorities with a submarine torpedo-boat constructed by the John P. Holland Torpedo-boat Company. It is a cigar-shaped vessel, with sharp bow and stern, the shell being proportioned to stand the hydrostatic pressure due to the craft being 70 feet below the surface level. The boat is 80 feet long and 11 feet in diameter at the centre. The motive power is twin-quadruple expansion engines of 1,000 horse-power, driving twin screws, and working with an economy of about 18 lb. of steam per indicated horse-power. The speed of the vessel when driven by the engines will be 16 knots on the surface and 15 knots when submerged to a depth at which only a small area of the upper part of the hull is exposed, and 8 knots when running under water driven by electricity from storage batteries. The vessel carries a coal supply for a fifteen hour run on the surface, and electric storage capacity for sixteen hours' run entirely submerged. The submerging is accomplished by opening valves, which permit the air in certain ballast chambers to escape and the water to enter, the blowers being stopped, and the fireproof doors to the ashpit and furnace being closed. The telescopic funnel is lowered and the apertures covered by air-tight doors. The craft, being air-tight and water-tight, is directed downwards by deflecting horizontal plane rudders at the stern. When the desired depth is reached these rudders are stopped, and by clever contrivances maintained truly horizontal. The propellers are run by the engines until the steam in the boiler is exhausted, and then electric motors are used for propulsion. When lying submerged a pipe can be raised to the surface to draw fresh air with the assistance of an electric fan, while the vitiated air can be forced out by an air pump; but ordinarily fresh air is supplied from compressed air reservoirs capable of storing ten hours' supply. Interesting details have been introduced to ensure that the vessel will not dive further than 70 feet, that she will while under water move in a straight course and altogether the details, determined in a Government competition, give promise of interesting tests.—United Service Gazette.

## French Army Manœuvres.

From a spectacular point of view the French army manœuvres appear to have been somewhat disappointing. On three occasions only did the opposing infantry come into actual contact, and on two of these days the final assault was not made. A military correspondent of the Times tells us that the manœuvres were carried out according to a cut and dried programme, which was strictly adhered to in every detail. There were no opportunities for any tactical lessons, and nothing sensational was attempted. Indeed, the manœuvres seem to have been planned for the purpose of practis-

ing the staff thoroughly in all the branches of their special knowledge. The technical instruction afforded was no doubt valuable, but the operations did not permit of anything in the shape of tactical experiments. The marching discipline of the French army seems to have commanded the admiration of all spectators. After a march of fifty minutes there was a halt of ten minutes, and at the stroke of the hour the whole column moved on. The simple plan was understood by everybody, and it was carried out with remarkable order and regularity. Every fifty minutes the column enjoyed the luxury of a brief rest; there was no confusion or hesitation. At the end of a long march none of the men seemed to be footsore, and they are declared by some critics to be better able to endure a fatiguing march than the German soldiers. Cyclists were employed to keep up communication along the columns. The French have apparently fully recognised the value of wheelmen in carrying despatches. Each battalion and each staff, as well as the cavalry and artillery, have the services of a number of cyclists, who are employed solely as carriers of messages. Attention is drawn to the fact that "when the columns were actually confronted by hostile infantry and guns, and in some cases forced to deport, no advance guard, beyond a squadron of cavalry to scout and a battalion formed as advanced guard, was pushed forward." The inference is that the French have come to the conclusion that with quick-firing guns and smokeless powder the necessity for a large advance guard is passing away, and that general officers, "after providing for the immediate safety of their column, will prefer to keep the bulk of it under their hand, with a view to a more deliberate use of the force at their disposal than was formerly the custom." The subject is one which presents many points of interest, and certainly appears to commend itself to some military experts in this country.

## The Oxen Were Tinned.

One day when we were at dinner on board H.M.S. Barracouta, the conversation turned on flotsam and jetsam, and our skipper remarked—"Talking about that, we had a queer experience coming round from Penzance. About two bells in the middle watch the lookout-man sang out that there was a man in the water swimming after the ship—" "Caught up with you pretty quick, I suppose," interjected one of the Barracoutas. Disregarding this insinuation against the Grasshopper's speed—the Grasshopper, I may tell you, is one Her Majesty's torpedo-catchers—the skipper continued—"Well, we slowed down, and then found it was an ox, and not a man at all. We hauled the beast on board, and, would you believe it, we picked up no less than seventy-two head of cattle that night. I fancy some cattle boat must have gone down thereabouts. Well, having got them all on board, we steamed into Falmouth, where we sold them for the benefit of the mess." There was silence for a while until someone remarked:—"I've been calculating the cubical contents of your ship, and find that on a liberal computation each ox had a trifle over two cubic feet of space. Now, an ox—" "I forgot," put in our skipper, "I forgot to mention that the oxen were tinned."—*English Illustrated Magazine.*

## The Capture of Nana Town.

By the mail steamer which arrived in the Mersey on Tuesday we obtain full details of the fighting in the Bight of Benin, of which some particulars were previously telegraphed and published in our issue of Sept. 8. Capt. Sir Alfred Jephson, R. N., who, as we then stated, was making a tour of inspection through the Niger Coast Protectorate, returned home by this steamer, and has given an interesting account of the proceedings up to Sept. 4. and this account we are able to supplement from other sources.

As our readers are aware, the Chief Nana had for some time previous been buying munitions of war and otherwise preparing to resist the authority of the Protectorate. The acting administrator had, however, decided not to interfere with the chief until after a conference with the commander-in-chief on the station, but while awaiting Admiral Bedford's arrival Lieut. Commander J. G. Heugh, of the *Alecto*, with Capt. Lalor and Major Crawford, of the Protectorate forces on Aug. 25, went up the Brohemis Creek, on which Nana Town is situated, to reconnoitre the enemy's position. The steam pinnace had proceeded some distance up the creek when a heavy fire was opened on the boat from a masked battery, in a few minutes all the ten persons in the pinnace being more or less seriously wounded. The leading stoker and fireman were badly hurt, and the engines stopped, the pinnace being all the while exposed to the fire from the heavy guns. Capt. Heugh asked if there was anybody who understood the engines sufficiently to start them. As there was no one but the two wounded men, one of the poor fellows, with his foot hanging half off, dragged himself along to the engines, which he started. This act of gallantry preserved them from destruction, and they were soon alongside the *Alecto* and out of reach of the enemy's fire.

The *Alecto* steamed away at once to Benin, where the wounded men were placed in the Consulate, which was converted into a hospital. Jury, one of the seamen of the *Alecto*, was killed by the first fire. Another seaman had his arm amputated, and a third his leg. Capt. Lalor, who had a portion of his leg shot away, had also to undergo amputation of the injured limb. His death followed on Sept. 3, as already reported. Meanwhile, the *Phæbe* (Capt. Francis Powell) arrived, and on Aug. 29 a reconnaissance in force was made by her men and a number of native troops belonging to the protectorate. The waterway to Nana Town, which the natives deemed to be the only route, having been shown to be hazardous, it was determined to take another course. The British force, therefore, cut down about 500 yards of dense bush and trees, and so took the enemy in flank. The task was carried out so well and rapidly that a force of about 300 men was able to march through the cut-