VISITS OF THE CRUISER RALEIGH TO THE CAPE FEAR.

Soon after the United States steamship *Raleigh* went into commission, in 1895, she came into the Cape Fear River to receive a service of silver, which was presented to her on behalf of the State by the Hon. Elias Carr, then governor of North Carolina.

Later, after our war with Spain, about the first of May, 1899, the *Raleigh,* returning from the Philippines, commanded by Captain Coghlan, again visited the Cape Fear for the purpose of delivering to the city of Raleigh some trophies of war, including several Spanish cannon, which were formally received by a delegation sent from Raleigh on behalf of the State of North Carolina.

The cruiser and her officers and men were honored by an enthuiastic welcome to Wilmington, and Captain Coghlan was deeply touched by his cordial reception. The *Raleigh,* under the command of Captain Coghlan, had joined in the attack upon the Spanish forts and war vessels in Manila Bay, and our people, desiring to mark this incident by a special compliment, presented another very handsome and valuable service of silver plate to Captain Coghlan and the ship. Mr. William Calder made the presentation speech, and the commander responded in a felicitous address which was long remembered by those who were present.

FEDERAL GOVERNMENT IMPROVEMENTS ON UPPER CAPE FEAR RIVER.

The present project for the improvement of the upper Cape Fear River was adopted by Congress in the River and Harbor Act of June 25, 1910. This project contemplates an improvement by canalization and dredging to obtain a navigable depth of water between Wilmington and Fayetteville, a distance of 115 miles, of eight feet. To accomplish this it is planned to put in two locks and dams. The first lock and dam, known as "Lock and Dam No. 1," is under construction at King's Bluff, 39 miles above Wilmington; and the second, or "Lock and Dam No. 2," is to be located at Brown's Landing, near Elizabeth-

town, 72 miles above Wilmington. The 8-foot channel between Wilmington and King's Bluff has already been obtained by dredging, and it is only necessary now to maintain it. The locks will be of concrete, with pile foundations and steel-mitering gates. The lock at King's Bluff will be about 294 feet long over all, with a maximum width at the base of about 84 feet. The walls will be 28 feet high, and the chamber will take vessels about 200 feet long and 40 feet wide. The dam will be of the timber-crib type filled with stone, with sheet-piling above and below. It will be about 275 feet long and 50 feet wide, and will raise the water eight feet above that in the lower part of the river. The abutment for the dam on the side of the river opposite the lock will be of reinforced concrete pile construction, and will have the same height as the lock walls. As the dam is low, in comparison with the river banks, it will be submerged, and its effect as an obstruction in the river will disappear by the time the river rises to the top of the bank, so that the area of land covered by water during flood times will be practically the same after the dam is put in as it is now. As the lock walls are much higher than the dam, vessels may use the lock during a considerable rise in the river, and when the river drowns out the lock, there will be no fall over the dam and vessels will pass directly over it.

The cofferdam is constructed of steel interlocking piling made by the Lackawanna Steel Company, and is of the same general type as was used in the cofferdam for raising the battleship *Maine.* The piling is 45 feet long, and was driven through from 23 to 28 feet of compact sand and thin layers of rock. This piling is anchored back by heavy steel wire cables to pile anchorages 52 feet from the wall. In addition to the above work on the cofferdam, the dredging inside of the cofferdam and of the approaches has been completed. This dredging involved the removal of 33,000 cubic yards of material. Inside the cofferdam a level bottom was secured about 18 feet below water. Driving the foundation piles is now in progress; this requires the driving of 1,850 piles with a penetration of about 23 feet. When it is completed, concrete will be deposited around the heads of the piles, the cofferdam will be pumped out, and the lock walls built in the dry. Work on the abutment will be started shortly and carried on simultaneously with the construction of the lock, and as soon as these are completed the dam will be built in place.