

been largely employed in every army to supplement and prepare the way for the actual firing of ball cartridge. Austria, however, now proposes to go a step further in this preliminary training by introducing for purposes of instruction and practice an air-gun, of a pattern designed by an officer named Heidler, and which has been already tried and favorably reported upon at several military stations."

We have to thank Lieut. General J. E. Bissert, C. B., for a copy of his valuable "Address on South Africa and her Colonies," delivered at the Royal Colonial Institute on 18th January last. It is a comprehensive history of a portion of the British Empire, hitherto very little known or appreciated, but the gallant soldier who has studied it with the eye of a political economist and the ability of a matured statesman may rest satisfied that he has done more to awaken public attention at home and abroad to the resources and capabilities of that wonderful country than the famous historical Ashantee campaign.

The address afford such valuable information that we republish it for the information of our readers, especially directing attention to the far seeing statesman-like scheme of Imperial Federation devised by the gallant author. It is a subject in which we are deeply interested.

Military Telegraph.

During the past three or four years General Albert J. Meyer, Chief Signal officer of the United States Army, who is better known as "Old Probabilities" has been very active in projecting and extending military telegraph lines. He has obtained several Congressional appropriations, and by utilizing the skill and labor of enlisted men, and using army teams for transportation has been very successful in stretching wires between military posts of the frontier, and connecting the remote outposts of civilization with the main lines of the Western Union Telegraph Company. At present there are about 2,600 miles of Telegraph in the United States directly under the control of the Government. California, Arizona and New Mexico contain 1,300 miles. In Texas there are 1,100 miles, and along the Atlantic coast from Hatteras north, there are 200 miles more.

CLOSING THE GAP ON THE SOUTHERN BORDER.

About a year ago Congress appropriated \$30,000 to be expended towards closing up the gap between San Diego, California, and Santa Fe, New Mexico, and Lieutenant Philip Reade was charged with the responsibility of performing the work. General Pope, commanding the Department of Missouri, detailed three commissioned officers and one hundred enlisted men, with a fair complement of army mules and wagons, to assist in the work. At that time the line was completed and in operation from San Diego via Fort Yuma, crossing the Maricopa Wells, Arizona, a distance of 400 miles. There were also two branch lines completed—one from Maricopa Wells north to Camp Verde, 50 miles east of Prescott, Arizona, 200 miles in length, and the other south from Maricopa Wells to Tucson, Arizona, 150 miles.

WHAT HAD TO BE DONE.

To build from Tucson to Camp Grant and Camp Apache, thus uniting all the military posts and connecting the Indian Reservations, was the first duty devolving upon the officer in charge. He visited the field of operations with the \$30,000 at his disposal and entered upon the task put before him. To connect Santa Fe, New Mexico, with the nearest point in Arizona having electric communication required the building of 630 miles, through an almost uninhabited and in many places a desolate country. After a careful survey and reconnaissance of all routes supposed to be practicable, Lieutenant Reade selected a route from Santa Fe following the general course of the Rio Grande, and commenced planting poles and stretching wire early in September, 1875. While the Rio Grande route, cutting across the bends of the river and traversing the dreaded *Sonora del Muerto*, is remote from timber, it accommodates the greatest number of people of any other part of that section of the country, and was therefore adopted.

DANGERS CONNECTED WITH THE WORK.

Indians, however, menace the working parties in that region, and render the operations extra hazardous. There are also long stretches without accessible water. In many places one may perish in sight of the flowing water of the Rio Grande without being able to reach the stream on account of the steep, lofty and rocky banks that hem it in. To obtain suitable timber for poles was a difficulty which constantly confronted the construction parties.

TIMBER RESOURCES OF THE REGION TRAVERSED COST OF POLES.

The timber of the country embraces cedar, poplar, cottonwood, aspen, willow and common yellow upland pine. The last named wood was accepted, although not as good as the cedar. The cedar growing in narrow canons was almost inaccessible, and had to be excluded from the list of available material. Cottonwood, poplar, aspen and willow decay so rapidly that they were rejected. The poles of pine 22 feet 6 inches in diameter at the small end, and weighing 400 pounds each, were planted 25 to the mile, and obtained at an average cost of 50 cents apiece, although they had to be hauled from 5 to 90 miles.

WHAT HAS BEEN ACCOMPLISHED.

The working force was divided into three parties, each party in charge of a commissioned officer. Since last September, 475 miles of telegraph has been constructed, equipped and placed in operation. The operators are enlisted men of the Signal Service corps, who have been trained in a knowledge of their duties. There is still a gap of 200 miles, but the remainder of the appropriation, if no part of it is used to repair the old line to Maricopa Wells, may be sufficient to connect Santa Fe, New Mexico, with San Diego, California, and thus unite all the military posts of Arizona, New Mexico and California by an electric chain.

ASSISTANCE GIVEN BY THE SETTLERS.

The settlers on the frontier and along the outposts rendered the builders every facility for prosecuting the work with energy. Many of them placed at the disposal of the Government officers laborers for cutting and teams for hauling poles. The inhabitants regard the telegraph as the forerunner of civilization, and hence hail the presence of the construction parties with pleasure.

In New Mexico, the settlers subscribed sums of money to enable contractors to make low bids for poles without sustaining pecuniary loss.—*Bullitin, San Francisco.*

The Inflexible.

LONDON, April 27.—The double turret ship *Inflexible* was successfully launched at Portsmouth at noon to day. The ceremony of christening was performed this afternoon by the Princess Louise.

The *Times* says the *Inflexible* is the most tremendous instrument of offensive or defensive warfare yet created.

The *Daily News* says:—No vessel like the *Inflexible* has been launched or even constructed. The *Devastation*, which has very properly been considered a type of our most powerful ironclads, carries armour 14 inches thick, and an armament of four 38-ton guns; but the *Inflexible* is sent afloat with armour actually 21 inches thick, and with an armament of four 81-ton guns. Here then at a bound the *Inflexible* has incomparably surpassed her predecessors, and can be fairly said to represent an important improvement on previous construction. It may be remembered how three years ago the startling rumour was circulated that the Russian Government was building an ironclad which was to eclipse all the vessels in the British navy, and could only be regarded as a floating menace to us so long as we made no attempt to compete with it. But this *Peter the Great*, which was launched in the autumn of 1874, powerful as she was and unsurpassed as she was then, cannot now be compared with the *Inflexible*. Her displacement is only 9,605 against that of 11,165 tons of her new rival; her armour, 14 to 16 inches thick, has been outstripped by a plating of 24 inches in thickness; and her armament of four 35-ton guns succumbs without an effort to the four 81-ton guns of the *Inflexible*. But the following table will give, perhaps, a clearer idea of the relative merits of this vessel as compared with her powerful rivals in the British and in foreign navies:

Ships.	Tonnage.	Armour. Inches.	Armament. Ton guns.
Monarch.....	8,322	10	4 25
Thunderer.....	9,190	14	2 31
Peter the Great..	9,563	14	4 35
Redoubtable.....	8,700	12	4 22
Independencia....	9,000	12	6 35
Inflexible.....	11,165	21	4 81

In the *Inflexible*, then, this table alone brings out the broad fact that, in armour and armament, for attack or defence, she is not only an exceptionally powerful but a most remarkable vessel. The following figures will clearly, if briefly, describe her. Her length between the perpendiculars is 320 feet; extreme breadth, 75 feet; draught, 23 feet forward and 25 feet aft; armour plating, 16 to 24 inches, with a backing of from 17 to 25 inches thick; armament, four 81-ton guns; indicated horse power, 8,000; coal capacity, 1,700 tons; twin screw; estimated speed, 14 knots; displacement, 11,165 tons; add an estimated first cost of £521,000.

PRINCE OF WALES RIFLES.—The 1st Prince of Wales Rifle Regiment assembled last evening in the City Hall for drill, under command of Col. F. Bond. After being put through several evolutions, the rifles had a short "march out," headed by their fife and drum band, but in consequence of the falling rain, they soon after returned to the hall. Col. Bond addressed a few words to the regiment, complimenting them on their fine muster and excellent drill. The Prince of Wales Rifle meet for drill on Tuesdays and Fridays.—*Montreal Star.*