

# The New Naval School of Wireless Telegraphy

ONCE more the United States government has demonstrated the fact that it is more progressive than any other in the world. Its naval department has been first to adopt wireless telegraphy as its leading means of rapid communication and to establish a permanent school for naval instruction in the reception and transmission of messages. An exhaustive series of experimentation conducted by the most capable men in the service brought to light the peculiar adaptability of the wireless system to naval requirements, and the experts engaged in this preliminary investigation were enthusiastic in their advocacy of its immediate adoption.

As a result the department has opened the most thorough and comprehensive wireless telegraph school ever attempted under any auspices. This latest department of service instruction is quartered in the equipment building at the Brooklyn navy yard. The class is housed on the receiving ship Hancock and at present numbers twenty-five men. These students are selected from the naval stations in all parts of the country and are men who have shown ability in various directions, especially in electrical matters. The instructors are the men who have been most efficient in the development of wireless telegraphy, and the curriculum embraces all that is known of the art at the present stage of its evolution.

The course of instruction at the navy yard covers a period of only thirty days. At first mention that seems short, but it must be remembered that the candidates' knowledge of electricity, including other systems of rapid communication, must be considerable. There is actually little to be learned beyond the mechanical skill to manage the comparatively simple apparatus used in the operation. This facility, it has been found, may be acquired in the prescribed time without undue exertion, although the candidate for graduation will find plenty to occupy his time. The graduates are expected to be able to enter any ship or shore station and to flash a message through space at the rate of 100,000 miles a second and to decipher accurately an answer to it. On graduation the naval electrician is assigned to some position and at once sets off for his new sphere of usefulness. His destination may be some snug berth at a nearby station, or it may be in the tropics or on the bleak coast of Alaska.

Wherever he goes, the graduate operator is sure of a larger salary than is paid to other seamen of his class. In order to secure competent men the government is exceedingly liberal at the start, and the emoluments grow as the



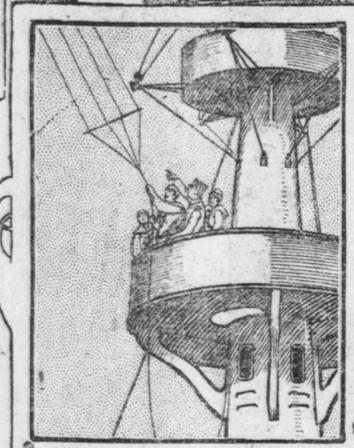
A JACKIE "WIRELESS" EXPERT

operator becomes more proficient. At the beginning he receives almost double the pay given to ordinary seamen recruits. These young untrained sailors are given \$16 a month, while the electrical recruit who passes a fair examination is classed without further ceremony as a third class electrician and is paid \$30 a month and living expenses far in excess of those of the ordinary seaman. Best of all, advancement is certain if he shows fitness. He may soon become an electrician of the second class, drawing a salary of \$40, and later will be rated as first class, entitled to \$50 a month. The highest rating of chief, with its financial accompaniment of \$70, will be his if he merits it.

A visit to Uncle Sam's new school-room at the Brooklyn navy yard will reveal a system of instruction which possesses many novel features of the educative process. On entering the long second story corridor of the equipment building a succession of buzzing sounds gives a premonition of what is to come. The interior of the spacious classroom is a modified babel of sound and bustle. Seated around several ta-



INSTRUCTION IN RECEIVING



A LESSON IN THE FIGHTING TOP

bles, the twenty-five students of the institution are deeply engrossed in mastering the details of the wireless system. For a certain time each man is drilled at the dispatching key. Some of the youngsters, pencil and paper at hand, are receiving and translating the buzzing news which is arriving from the opposite side of the room. The navy has a wireless code alphabet of

its own made up of a series of dots and dashes quite distinct from the signs used in commercial wireless telegraphy. These are indicated by electric sounds received through an ear telephonic receiver, and they must be learned thoroughly by the beginner before he can proceed. These same clicks may be printed upon tape by the automatic Morse recorder, but the trained ear is quite as reliable and far more speedy. For that reason the government requires all its graduates to be proficient in both methods of receiving. The printed recorder is valuable for preserving the exact form of the communication for official reference.

The naval bureau of equipment is planning to establish a system of wireless telegraphy which contemplates a network of stations covering the entire

coast line of the United States, making a continuous circuit from the northeastern stations via Key West and other southern points to Sitka and the Aleutian islands in the far northwest. America's insular possessions in the Pacific—the Sandwich Islands, Guam and the Philippines—will be connected with the system, and so also will both extremities of the Panama canal. It is believed that a specially powerful apparatus placed at the station on the Farallones, thirty-two miles due west of the entrance to San Francisco harbor, will make communication possible between that point and Honolulu, 2,100 miles distant. Special long distance plants are to be provided for Guantanamo, Cuba; San Juan, Porto Rico; Pensacola and Key West, Fla.; Colon, and Panama, perfecting the greatest chain of naval intercommunication in the world. Between some of these points over 1,000 miles intervene. Altogether a total of 202 stations, ashore and afloat, will be established by the American navy. At the present time there are only thirty odd.

As indicative of the probable speedy realization of the great work marked out by the department some recent records made by the new telegraphy should prove encouraging. While passing Cape Henry the Minneapolis read the weather report which was being sent out from the station at that point, ninety-five miles distant. The same vessel read a message from the Nantucket lightship, 100 miles away. This latter trial was considered a most remarkable achievement, since the mast of the lightship was only 106 feet in height and the mast of the Minneapolis only 120.

The navies of other countries have instituted various wireless telegraphic systems, but nothing so comprehensive as the American scheme has ever before been contemplated. The French and Italian navies have undertaken some remarkably successful experiments in short distance transmission. The Japanese have demonstrated the usefulness of the new system in actual warfare. They have shown great ability in sending short distance messages both on land and at sea and an equal cleverness in intercepting messages sent by the enemy. Now that they have obtained control of the coast it is expected that the Japanese electricians will add some notable examples to the record of long distance wireless transmission.

There is only one inference to be drawn from the wholesale manner in which the United States navy has committed itself to the new telegraphy—it is no longer a matter of speculative concern only; it is a success demonstrated and unqualified.

JOHN H. FREEMAN.

## A FISHER MAIDEN OF MARKEN, HOLLAND.

Marken is in reality only a wide sand bank in the Zuzyder Zee, that historic gulf in the German ocean which makes the coast of Holland such a picturesque locality. This sandy island is inundated during most of the winter, but its hardy inhabitants, all of them engaged in fishing, do not mind this particularly. Livings are almost entirely in boats. The dwellings are set on piles and are only



one story in height. These little houses are painted in the brightest colors, red, green, yellow and blue. The costumes of both sexes are highly picturesque, gay colors predominating. The women are quite as hardy as the men and engage in the same occupations. The fisher maidens of Marken have often furnished models for the painters who find so much inspiration in the Netherlands.

## SOLDIERS LOST BY SICKNESS.

During the years from 1882 to 1901 the French army lost 67,000 men by illness, while in Germany the corresponding figure was only 25,000 men. The cause of this disparity lies largely in the effort to keep the army of France, whose population is 20,000,000 less than that of Germany, equal in size to Germany's, the consequence being that many recruits are accepted who are bound to succumb to the severity of military life and training.

# UNIQUE PHASES OF LIFE FROM ALL OVER THE WORLD

AN ANCIENT INDIAN PRAYER BOOK.

THE Morning and Evening Prayer, THE Litany, Church Catechism, Family Prayers, AND Several Chapters of the Old and New Testament, Translated into the Mohawk Indian Language.

By Lawrence Claesse, Interpreter to William Andrews, Missionary to the Indians, from the Honourable and Reverend the Society for the Propagation of the Gospel in Foreign Parts.

Ask of me, and I will give thee the Heathen for thine Inheritance, and the Utmost Parts of the Earth for thy Possession, Psalm 2.

Printed by William Bradford in New York, 1715.

The cut is a reproduction of the title page of one of the most highly prized American books in existence. It belongs to an Indian prayer book printed in New York city in 1715. At a recent auction sale of rare books held in the metropolis this little worm eaten, time stained book, which was the property of the late Methodist Bishop John F. Hurst, was sold for \$1,300, the reputed purchaser being J. Pierpont Morgan. Most of the book is printed in the Mohawk language, and it was the first book ever published in that tongue. William Bradford, its printer, was the earliest representative of his trade to open a shop in New York.

## THE PROPOSED NEW ERIE TERMINAL STATION.



The picture shows the new terminal station which the Erie railway system proposes to establish at the foot of Twelfth street in Jersey City. The new terminal will be for passenger traffic exclusively, and it will require twenty-two tracks about equally divided between arrival and departure platforms. It will be entered from a concourse leading from the upper decks of the fleet of new ferryboats now building for the company. There will be five ferry slips in the new terminal. It will be completed in about two years.

## JAPANESE INFANTRY MAKING READY TO LAND.



Owing to the shallowness of the water the transports and lighters which are used to carry the Japanese to the Liautong peninsula can very seldom approach sufficiently near to the land for the soldiers to make a dry landing. Before disembarking every one must prepare to do a certain amount of wading. When the sea is rough this fashion of reaching terra firma involves considerable management. In addition to the care which is sometimes necessary to keep a foothold there is the task of bearing arms and keeping the salt water away from them. It is thus at the very threshold of the disputed country that the soldier's arduous career begins.

## DRESDEN'S WONDERFUL APE.

The cut shows Johann, the big anthropoid ape in the zoological garden at Dresden, Saxony. Johann is really an orang outang and is reputed to be more like a human being than any other monkey now in captivity. He possesses a full fledged mustache, a Napoleonic goatee, wears his hair in a pompadour, and his black, piercing eyes are full of intelligence. His countenance is very



human, and it is wreathed in a perpetual smile. Johann's manner is the most wonderful thing about him. He insists on sitting at table and eating with knife, fork and spoon, sips beverages daintily and uses a napkin. Johann is a native of the interior wilds of Borneo and is now twelve years of age. He has been in captivity only about a year, but has manifested a most amiable disposition ever since he was taken.

## SNAPSHOT DETECTIVES.

European inspectors take snapshots of men engaged on public work. The photos in some cases are more eloquent than any report could be. One showed a group of thirty men on a road paving job. Two of the thirty were at work.

## UNION PRINTERS' HOME AT COLORADO SPRINGS.



The institution herewith illustrated is probably the most complete establishment of its kind in the world. Although the members of the International Typographical union have contributed more than \$500,000 to its construction and equipment, they are by no means inclined to relax their generosity. The home occupies a fine tract of eighty acres a mile east of the beautiful city of Colorado Springs, in the shadow of Pike's peak. The main building is a noble structure of white lava stone with red sandstone trimmings, and there are several other buildings of almost equal beauty. A substantial addition to the main structure is about to be erected to the memory of the late Amos J. Cummings, who was called "the printers' friend."

## ON DOGGER BANK COMMISSION.

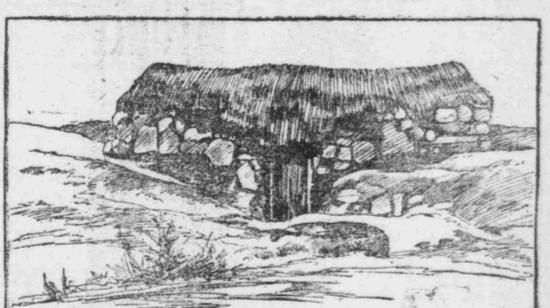
Admiral Baron von Spaun of the Austrian navy, the fifth member of the commission investigating the conduct of the Baltic fleet in the Dogger bank firing episode, is regarded as the most distinguished naval officer in the em-



ADMIRAL VON SPAUN.

pire and is virtually at the head of its naval department. His selection was due to the unanimous action of the other four members of the commission, who were empowered to choose a fifth man. The admiral was a great favorite of the late Admiral Tegethoff, who was the father of the Austrian navy and won the victory at Lissa over a comparatively superior Italian fleet.

## HOME OF A POVERTY STRICKEN FAMILY IN IRELAND.



The cut depicts one of the miserable cave dwellings of the poor Irish in the County Galway district of Connemara. This is a poor agricultural district, and the inhabitants are destitute of most of the conveniences of life. Their half underground hovels are squalid and unhealthy. Added to all this is the famine which prevails in much of Ireland on account of the potato crop failure the past season. In many parts of the island the people are entirely destitute of means of subsistence, and the most harrowing and pitiful letters come to America asking help. The past season was unusually hot and wet in Ireland, and there was an almost total failure of crops of all kinds.

## MEMORIAL TO ETHAN ALLEN.

The drawing represents the memorial tower which the Vermont Sons of the American Revolution will erect to the famous Green Mountain State patriot, Ethan Allen. It will be in the form of



a square modified Gothic structure with an overhanging crenelated battlement. The material employed in the construction will be Vermont marble, and it will be located at Burlington, where Allen died in 1789, having been a resident of the town for two years. Although a blusterer and given to strong expressions, the old hero of Ticonderoga was as full of action as he was of epithets, and he displayed great ability both in war and in politics.

## THE LITTLE KING OF UGANDA.

The present ruler of the African kingdom of Uganda is little Daudi Chwa, son of the fierce and bloodthirsty Mwanika, who was the terror of the African tableland. Mwanika's conduct became so atrocious that he was deported to the coast, and his little son began to reign under a regency of three native chiefs. The natives of Uganda have become quite civilized, and many of them



have embraced Christianity. The boy king is under the general supervision of the British missionaries and is a lad of much promise. He is entitled to an income of \$7,500, which is a great sum of money in Uganda. He writes and speaks English well and is an ardent bicyclist.