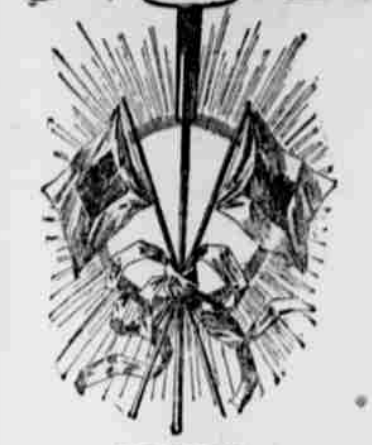


SPY SIGNALS



Since the news of the surrender of Admiral Santiago by the heliograph, that device has become a more popular consideration in a prominent and interesting way. From time immemorial there has existed with all nations some system of communication by sight or sound. In this country it dates back to the aborigines, who made use of a method involving the waving of a blanket to obscure fire or smoke at long and short intervals. From this crude system of the red man there has evolved by slow stages the perfect heliograph code of to-day, whereby flashes of sunlight are sent scores of miles by the Morse system of telegraphy, conveying messages from one body of troops to another; or from headquarters to a detachment in the field. In the larger cities, of late years, when there is a street parade and the national guard turns out, spectators have noticed a peculiar detachment of troops following in the wake of each regiment—men with crossed flags on their sleeves, long leather-bound cases like gun cases under their arms, and other unfamiliar paraphernalia. These men constitute the "signal corps," and this branch of the service is now on a plane with the costly regular army.

The heliograph, or sun glass, is the greatest of modern improvements in the

and can elude the dots and dashes of the Morse alphabet. During the war of the rebellion signalling was mainly done by flags. The code was cumbersome, the heliograph unknown. Yet the signal corps was an effective aid to every division of the army. Grant signalled the orders that concentrated the brigades below Vicksburg, and in the later battle of Lookout Mountain, the famous "battle above the clouds," accurate information of the enemy's position was waved from cliff to valley headquarters, and from tree to riverside. General Albert J. Meyer was the father of the army signal service, and his principles—save as to code—are still followed.

The flag code now is very complete, and every move of the red flag to right or left, up or down, or swung in circles, conveys a definite message to field-glasses far away. During the Indian wars out West signalling was an important feature of an erratic and difficult warfare. The far-distance system was there in general vogue. It was the heliograph which caused the surrender of the terrible Apache chief, Geronimo. When he was corralled in some hundreds of square miles of Arizona desert, a signal service station was placed at every watering place. The flashes gave warning whenever the thirsty remnant of the once powerful band approached any of the springs. Finding that he would die of thirst unless he made a hopeless attack upon the troops, the chief at last consented to a parley and to final surrender. The effectiveness of the signal system with both land and sea forces during the Cuban war, is one of the most interesting and important features of that campaign. Everywhere the heliograph and the wig-wag system of flags were in use, and the signal corps were influential in hastening the course of many events upon which hung the destinies of army and fleet.

Duties of a Landsman.
An uptown drug clerk desired to enlist in the United States navy. He was

London. It boasts a large church that is an imitation of St. Paul's cathedral. The original Banbury cross was, unfortunately, destroyed by the Puritans at the Reformation. A steeple type of structure, something on the lines of the Martyrs' Memorial at Oxford, now marks the place where it stood. The fine lady of the nursery jingle is an allusion to the habit of the "old woman of Banbury," known also as the "witch of the white horse." Like the cross, she has long since disappeared, but her memory is kept green by the procession in the town at royal jubilees, occasions of rare occurrence, except in recent years under the present happy reign.

FATHER OF PENNY POSTAGE.

J. Henniker Heaton, M. P., Receiving Great Praise for His Work.
J. Henniker Heaton, M. P., the father of the imperial penny postage in the British Empire, is receiving no end of praise for his work, especially from the colonialists. He has been in Parliament many years, and has made himself immensely popular by his labors for a reduction of the letter postage which is almost international. Perhaps Mr. Heaton was not altogether disinterested in the scheme, for he is the proprietor of one of the largest newspapers



properties in Australia. At the same time he is receiving the blessings of millions of her majesty's subjects who write letters to friends beyond the seas. The penny postage plan went into effect on Christmas day, and is only one of his author's schemes for postal reform.

SAT UP WITH \$100,000.

A Porter's Vigil Over Wealth of a Mexican Mining King.

C. P. Wheeler, the mining king of Humulco, Mexico, has much cause for congratulating himself that he fell in with an honest man when he boarded the Santa Fe limited at Albuquerque last Thursday on his journey east. He is manager for his own valuable property there and also looks after the interests of several nonresident syndicates and handles large quantities of cash all the time.

When he was shown his berth in the sleeper Astoria, in charge of Conductor Breed of Chicago and Porter W. H. Hubbell of Kansas City, he informed the porter that he intended to surrender himself wholly to his care and wanted all the attention that was required. Mr. Hubbell has been in the Pullman service long enough to know exactly what was required, and he stowed the mining king away snugly in his berth.

Prior to falling asleep Mr. Wheeler called Porter Hubbell to him and said he had some cash he wanted to turn over for safekeeping. Mr. Hubbell declined to take it, but declinations don't go with the mining king and he simply called the porter to him and loaded him up with his valuables. He reached down in his bootleg and pulled out a roll of new bills and handed them to the porter with the injunction to take care of it during the night. Mr. Hubbell would not take it except that it was witnessed and accepted by Conductor Breed and A. M. Mowry, of Chicago, witnesses of the acceptance of the trust. There were bills of \$1,000 denomination in the roll. When he saw the amount Mr. Hubbell said he was going to back out right there.

"No, you won't," said the miner; "just take the rest of it," and he flashed out of his pockets a dozen drafts and a letter of credit for sums aggregating more than \$100,000 more and handed them to the porter and then rolled into his berth and quietly went to sleep.

All that night Mr. Hubbell sat in the opposite berth watching the slumber of the miner. Not once did he let his eyes close in sleep nor did he take the roll out of his hand all night.

The next morning the miner awoke and, without the slightest air of surprise, had his fortune returned to him. He took it as a simple matter and promised to reward the porter for his kindness, and Friday night, when the train reached Kansas City, Mr. Hubbell was called to the berth and the miner dropped into his hand two \$20 gold coins. It was a tip that was so liberal the porter was astonished, but the miner made it still better by presenting him with a miner's heavy overcoat, a creation that is made to weather any experiences the winter in the mountains may bring.

Mr. Hubbell arrived from his run yesterday. He said he had never encountered such an experience before, although he has had years of experience in the service. He admitted he was delighted to get rid of the cash and heaved a sigh of relief when it was safely returned and the big miner tucked it snugly away down in his capacious bootleg.

"I've had lots of tips and seen plenty of money, but it makes a man feel queer to have \$100,000 in clean new bills in his possession, and the owner sound asleep all the time," he declared. "I am always willing to care for our passengers, but I hope the Mexican miners won't carry so much cash next time they ride with me."—Kansas City Journal.

WHY SHE COULDN'T PAY.

The Nickel Was Lost and Couldn't Be Found.

"Fare, please," said the conductor to the young woman who sat in the street car, a picture of woe. "I can't pay you this time," answered the young woman, faintly, says the New York World.

"Why can't you, ma'am?" in a suspicious tone.

"I—I have lost my fare."

"Did you have it when you got in?"

"Yes, but I haven't it now. You can take my address, and I'll send it to you."

"I can't do that," said the man. "It's against the rules. If you lost your fare in this car, there is no reason why you should not find it again. I'll help you to look for it."

"No, no," said the woman, in a state of alarm. "I tell you that it is lost, and you will have to trust me to send it to you."

"Very strange!" said the conductor, suspiciously. "If you lost it here, I can't see any reason why you can't find it again. How did you lose it?"

"It's gone down my neck!" shrieked the young woman, driven to desperation, and then the other passengers remembered seeing her fiddling with her collar.

COAL IS KING.

Its Mighty Power Controls Our Entire Civilization.

We could not do without coal. This commodity has become an absolute necessity of modern life. A failure in the coal supply would deprive us at one blow of the means of locomotion, light, warmth and cooked food. It would more than treble the cost of all commodities which are at present manufactured by steam power. In our great cities it would at once cause an unprecedented famine, as it would be impossible to meet the requirements of the markets. It would convert our navy into a collection of useless hulks, and would probably establish Norway or Sweden as the greatest naval power in the world. It would make Russia the greatest commercial power, as this is the only country which uses oil almost entirely for purposes of locomotion, and which has enormous stores of that commodity within its borders. Countries with large populations would become uninhabitable, and the world would drift back into a pastoral condition. The vast majority of stocks and shares would be converted into so much waste paper. It would probably take at least a century to repair the devastation that would ensue.

Pearls of Great Price.

The most magnificent and costly pearl necklace in the world is in the possession of the Countess Henckel, well known in London and Paris. It is made of three historical necklaces, each of which has enjoyed considerable celebrity in former times. One of them, valued at £2,000, was sold to the Countess by a grandee of Spain, and is known as the "necklace of the Virgin of Andalus." The second belonged to the Queen of Naples, and the third was the famous necklace belonging to the Empress Eugenie and by her lately sold to a London jeweler for £20,000.

An Old Palace.

Lambeth Palace, London, has been the home of the primates of Canterbury for seven centuries. This place can show specimens of almost every style of architecture which has prevailed since 1190.

Merely a Matter of Taste.

Grandmother—And is John's new watch going all right?
His Father—No, mother. It's gone, long ago!—Jewelry Weekly.

ECONOMIC COMMISSION FOR UNCLE SAM'S COLONIES.



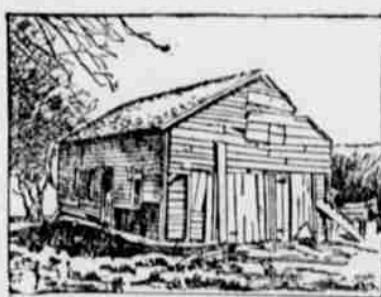
The new colonial commission, which is to have general supervision of the affairs of the Philippines, Porto Rico and Cuba, is composed of three men from the three States of Ohio, Michigan and Massachusetts. Gen. Robert Patterson Kennedy is the former Congressman from the Eighth District of Ohio. He served in the armies of West Virginia, the Potomac, the Cumberland and the Shenandoah. When he was mustered out he returned to his home at Bellefontaine and became a lawyer. He was internal revenue collector in 1878 and lieutenant governor of Ohio in 1885. He is prominent as a jurist in Ohio. Charles W. Watkins, of Grand Rapids, Mich., has been long well known to Secretary Alger, who feels he can rely implicitly on the sound judgment of the colonial commissioner from Michigan, as well as on that of the two other gentlemen who make up its personnel. The third member of the commission, Lieut. Col. Curtis Guild Jr., of Boston, is engaged in Cuba as inspector general on the staff of Gen. Lee. Col. Guild is a son of the editor of the Boston Commercial Bulletin and is well known in Massachusetts.

The commission's headquarters will be located in Washington. The peculiar functions of the commission will be more economic than political. They will concern the granting of franchises, the supervision of public works and of engineering enterprises, which are now rapidly multiplying in the new territories, with a promise of development in the future that is not less than appalling to the war office.

GOVERNOR OF PENNSYLVANIA.

His Rise from Poverty and Obscurity to Wealth and Distinction.

When Hon. W. A. Stone, newly elected Governor of Pennsylvania, took the oath of office and assumed the reins of State government there entered the executive mansion at Harrisburg a man who has climbed to his present high position over unusual obstacles of poverty and difficulties and who may truthfully be called "a self-made man." His parents were Pennsylvania



WHERE STONE WAS BORN.

farmers, highly respected, but poor. Through all of the early years of his boyhood he had but three months of each year at school, and that a little country one; the remaining nine months he bore his share of the burdens incident to a farm. At 17 he enlisted in the war, and came out, at the close of hostilities, two years later, a second lieutenant. Then for several

THE COTTON KING.

Robert Knight a Product of the Growth of Modern Industry.

Robert Knight is one of the most remarkable products of the growth of modern industry. He is commonly called the "Cotton King," and he deserves the name, inasmuch as he is the largest mill owner in the world. He is the individual proprietor of 450,000 spindles, 11,000 looms, and fifteen villages. He owns everything in those villages, and to all intents and purposes the villagers, too. "Bob" Knight, as he is familiarly known, is now 73 years old, and would never be taken for the absolute master of the cotton industry. His living expenses are covered by a sum the equivalent of a clerk's salary. When Knight was a lad he was a bobbin boy in a New England mill. Summer and winter he went barefooted to his work. His brother Brayton opened a small store in one of the mill towns and prospered. He took Robert in as a partner. The future mill owner was thrifty. He had saved much and was in comfortable circumstances when a clerk in a Pontiac cotton mill. His employer was elected to the United States Senate. Knight rented the mill for \$5,000 a year. At the end of a few years he bought it out for \$14,000. This was the nest egg of his tremendous for-

HILLIS GOES TO BROOKLYN.

Chicago's Brilliant Preacher Called to the Pulpit of Plymouth Church.

Chicago's brilliant preacher has been called to the pulpit of Plymouth Church, Brooklyn, made famous by Henry Ward Beecher and recently vacated by Lyman Abbott. The friends of Rev. Dr. Newton Dwight Hillis expect that he will achieve the same measure of renown and popularity as did the illustrious men whom he succeeds.

Dr. Hillis is a native of Iowa and 40 years old. He was educated at Grinnell Academy, at Lake Forest Univer-



DR. NEWELL DWIGHT HILLIS.

sity, and at McCormick Seminary. For three years after leaving his theological studies he was pastor of the First Presbyterian Church of Peoria, Ill. Within that time he built a new church at a cost of \$50,000. From 1890 to 1894 he preached from the pulpit of the First Church of Evanston, Ind., where he likewise preached a new church building. In December, 1894, he succeeded Prof. Swing, of Central Church, Chicago. The new pastor of Plymouth will preach in Brooklyn the same creed he has preached in Chicago. It is the creed of broadest Christianity and humanity, the creed of Beecher. Dr. Hillis is also a writer and has been well called "the poet-preacher of the end of the century."

"PROPHETESS OF EVIL"

The High Priestess of the Dreyfusards Predicts France's Ruin.

Georgiana Weldon is the latest Parisian sensation. She has written a pamphlet which involves those army men who have said that Dreyfus is guilty, and in which she predicts the downfall of the nation.

This woman has been the scourge of a few great men in her time and the puzzle of courts and specialists in psychology. In 1872 she was a concert singer in London, and on the occasion of Gounod's visit there she spread the report that the German composer was about to become a British subject. It was all Gounod could do to persuade his fellow countrymen to the contrary. She claimed Gounod's compositions as her own and secured a judgment against him for \$50,000 in the English courts. She sued Rochefort for libel, was committed to insane asylums, which she sued immediately on being released. She was sent to a convent,



GEORGIANA WELDON.

where she still resides, but there are Dreyfusards who desire to carry her through the streets of Paris in a chariot.

Children's Eyesight.

Official tests of the eyesight of Baltimore school children—tests ordinarily made by oculists—to the number of 53,067 show some interesting and suggestive results. More than 9,000 pupils were found to have such defects in these organs as to make school work unsafe, while 53 per cent. of the children were found not to be in the enjoyment of normal vision. Curiously enough, this percentage of defective eyesight steadily decreased with the age of the pupils. The percentage of normal vision was found to be as follows in the different grades: First grade, 35; second, 41; third, 47; fourth, 49; fifth, 48; sixth, 48; seventh, 51; eighth, 56. No explanation is offered for this improvement in eyesight with age and the use of the eyes under school conditions. It was found, however, that many blackboards and maps in the schools were not placed in the proper light, and the report of the oculists recommends yearly examinations hereafter of the pupils' eyesight; also the adoption of a uniform system of adjustable seats and desks adapted to the heights of the children.



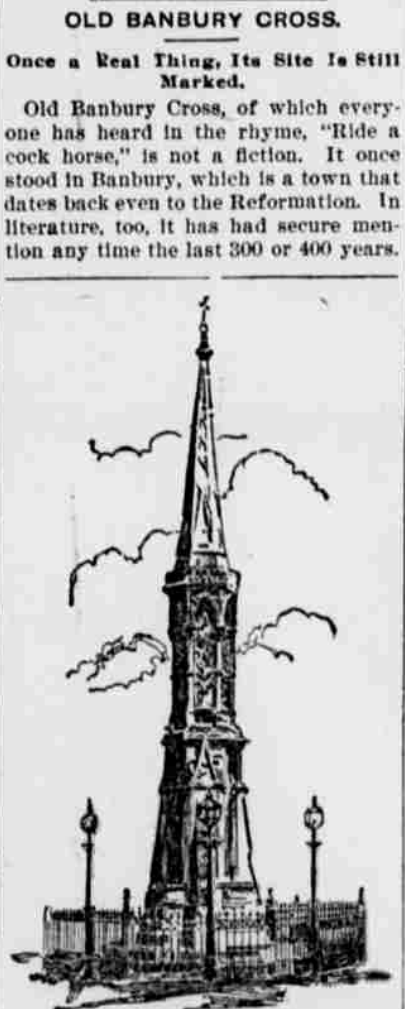
SOLDIERS USING THE HELIOGRAPH.

field of signalling devices. In form it is a glass four inches square, and in its center is a minute hole. The operator holds the glass to the sun in such a position that, sighting through the aperture, he strikes a spot on the sighting rod. This, on its principle, is ranged by distance, and is set by experiment until the operator knows that a certain point upon it will give him the range of the point he desires to send his message to by flashes. The communication, in dots and dashes, is carried on by a shutter with which the operator cuts off the flashes or elongates them at will. A short flash is a dot—a long one a dash. The heliograph can send its sunlight a wonderful distance. Last year in the Rocky Mountains, Captain Glassford, of the department of the Colorado, flashed a message from Mount Ellen to Mount Uncompagire, a distance of 185 miles. The power of the light is also great. Turned on to the dome of a State capital building one day recently, from a station miles away, the refraction of the rays proved so great that the dome could not be seen.

The shutters are worked by two little rings, arranged like the handles of a scissors, into which the thumb and one finger of the operator fits. When the hand is closed the shutters fly back, exposing the mirror to the sunlight, and a flash is at once emitted like that with which a small boy tantalizes one in a window with a piece of mirror. With a few minutes' practice any telegraph operator can manage a heliograph. Reading the flashes as they came over miles of space to the other station is not so easy, however. One soldier stands behind the instrument which is not in use, and reads off the message flashed to him by the distant instrument to another man, who takes it down in regular form on a telegraph blank.

In November, 1893, Assistant Superintendent Lloyd, of the Western Union, tendered his services to the Second Illinois Regiment for the organization of a signal corps. This led to an organization, so that now in three State brigades there are ninety skilled signal men. The first important work of the corps was during the thirty-three days of camp service during the great Debs labor strike at Chicago. The system was here found to be invaluable, for in at least half a dozen instances the sun flashes warned bodies of soldiers of the approaching riot, or served to convey calls for assistance. There was a signal station at every threatened point. Later, at Camp Lincoln, experiments, the system was advanced to the very highest grade of proficiency.

In addition to the heliograph, the various signal corps are now fully equipped with flags for day use, torches for night service, telegraph instruments and reels of wire, and every known device for transmitting messages by sight or sound, skilled signallers can telegraph by wire, by wig-wag, by flashes, by torch, by knife or flag. They can make a common mirror do heliograph duty in time of need,



BANBURY CROSS.

It is, therefore, a disappointment to be told—although we knew it before, we always knew it—that Banbury is a mere country place in England, which for centuries remained of no little commercial importance, even crediting it with plenty of cheese and tarts of its own production. These, it is true, are still famous all over England. In recent years there has been an accession of business there in the manufacture of agricultural implements. It is a market and borough town, situated on the River Cherwell, sixty-five miles from