WHO'S WHO AND WHY

MAY BE CANADIAN RULER

What to do with the duke of Connaught, brother of King Edward VII., is one of Great Britain's ever-recurrent problems. The latest of the rumors affecting him connects his name with the governor-generalship of Canada.

The reported intention of Earl Grey to retire early this year has given occasion for conjectural selections for his place. None, it is said, would meet with more general approval throughout the empire than the designation of the duke. For one thing, by reason of Connaught's relationship to the king, it would consolidate that "imperial partnership" which it is felt would make for the closer union of Great Britain with her dominions over the sea. Canadians, it is thought, would welcome the choice. The fact that he would have far higher rank than any former incumbent of the vice-regal post would presumably in itself be not unpleasing to the people of the dominion.

Only last February the duke's appointment to the lord lieutenancy of Ireland was talked of. His peculiar fitness for the office was urged on the ground of his acquaintance with Ireland and Irish affairs, acquired while he was commander-in-chief there. His popularity and that of his daughter, Patricia, current discussion had it, would have assured him a warm welcome from the Irish landlords and their families, with undoubted benefit to Irish trade.

The consideration of his name in that connection was said at the time to have grown out of his known dislike of the honorary post at Malta, where he bore the title of field marshal commander-in-chief of the Mediterranean forces and high commissioner of the Mediterranean. To this post, following a resignation which is said greatly to have displeased the king, Lord Kitchener succeeded him.

MAKES SURGERY PAINLESS

If you want to—and of course you don't—you can have your legs or arms cut off without feeling any pain and without being unconscious Prof. Thomas Jonnesco of Bucharest, Roumania, has made this possible through his discovery of stovaine.

Recently Dr. Jonnesco has been demonstrating the use of stovaine in Chicago, New York and other large cities and the surgeons who have seen the operationos performed have pronounced it a great success.

Even the treatment of heart disease is not beyond the powers of benzolethyldimethylaminopropanol hydrochloride—which is Dr. Jonnesco's solution—and he confidently believes it will supersede the use of ether, chloroform and other anesthetics now in use. Stovaine proper was injected chiefly at the base of the spinal cord and was useful only for operations below the waist line, but the professor claims his discovery enables him to operate on a patient from head to feet without pain and with consciousness preserved. By the Jonnesco system injections are made nearer the neck.

Dr. Jonnesco is many times a millionaire, coming from a family of land barons. He was graduated as a bachelor at law, when he formed a desire to study surgery. He was prosector of anatomy of the Medical School of Paris when stovaine was discovered six years ago.

It was found an ideal anesthetic for the lower limbs, but was too powerful to be used where its potency might reach the heart. In 1906 Dr. Jonnesco devoted almost his entire time to experiments with stovaine and late in the next year discovered that strychnine dispelled the dangerous effects of stovaine, but did not affect its anesthetic powers.

He was elected an honorary member of the Royal Society of Surgery of England, the same society which was bitter in denouncing him in his early experiments.

He is dean of the University of Bucharest and a director of the Bucharest Institute of Experimental Surgery, has been re-elected honorary president of the international congress of gynecology and surgery and is a member of the International Commission of Surgery.

PINCHOT KEEPS UP FIGHT

Gifford Pinchot, chief of the forestry division of the department of agriculture, is about the only member of the Roosevelt regime who is being pointed out to strangers on the streets of Washington these days. "There goes the man who is fighting Ballinger," is a common expression whenever Mr. Pinchot appears on the avenue.

The Pinchot-Ballinger row began last summer and shortly before the president started on his long tour there was talk that Mr. Pinchot would be forced out of his position. Later came reports that Mr. Ballinger would resign as secretary of the interior, but both are still at work and the fight is going merrily on.

Recently in a New York speech Mr. Pinchot declared the people of the United States have been the complacent victims of a system of plunder of the public forests—crimes often perpetrated by men of high station in commercial and social life.

Condemning the methods of these "rich criminals," he said:

"But they have suffered from a serious moral perversion by which it becomes praiseworthy to do for a corporation things which they would refuse with the loftiest scorn to do for themselves. Fortunately for us all, that delusion is passing rapidly away."

This statement, coming on the heels of Mr. Ballinger's denial of charges that had been made against him, cast fuel into the flames and President Taft was sorely displeased. Now the president has put the matter up to congress and there is to be an investigation. The outcome means the official scalp of Ballinger or Pinchot, according to the opinion of many well advised persons in Washington. It is not believed that Pinchot will quit under fire and Mr. Ballinger is known as a fighter, so there is likelihood that the war will be carried on to the bitter end. Pinchot is wealthy and doesn't need the salary attached to the job, but he loves the trees and outdoor life and that is one reason why he is such a good friend of Theodore Roosevelt.

GOT $750,000 XMAS GIFT

Probably the most costly and beautiful Christmas gift that any woman in the world received was a rope of magnificent pearls, said to have cost $750,000, which George D. Widener of Philadelphia presented to his wife, who was Miss Eleanor Elkins, daughter of the late William L. Elkins, the traction magnate. It is the most costly string of pearls in the world.

It is said that Mr. Widener intended the gems, some of which are nearly as large as pigeon eggs, and sufficient for a king's ransom, as a surprise for his wife, but news of the gift that a princess might well envy leaked out.

It is probable that society will have an opportunity to admire at first hand what is said to be the finest collection of pearls, gem for gem, that any woman in this country has been privileged to wear. Mrs. Widener is to give a ball at the Bellevue-Stratford in Philadelphia this month and it is presumed that she will wear the pearls on that occasion. If she does and she should wear at her throat the string of pearls which she has previously worn and which has been so much admired, the total value of her pearl adornments will be a round million of dollars. The strand she now wears is valued at $250,000, the center stone alone being worth $65,000.

Mrs. Widener is known as one of the beautiful women in the society of Philadelphia, New York and the fashionable New England coast resorts. She is of the brunette type, tall, and noted for the beauty of her gowns and the grace with which she wears them.

WIRELESS TELEGRAPHY *Via* KITES AND BALLOONS

BY WALDON FAWCETT

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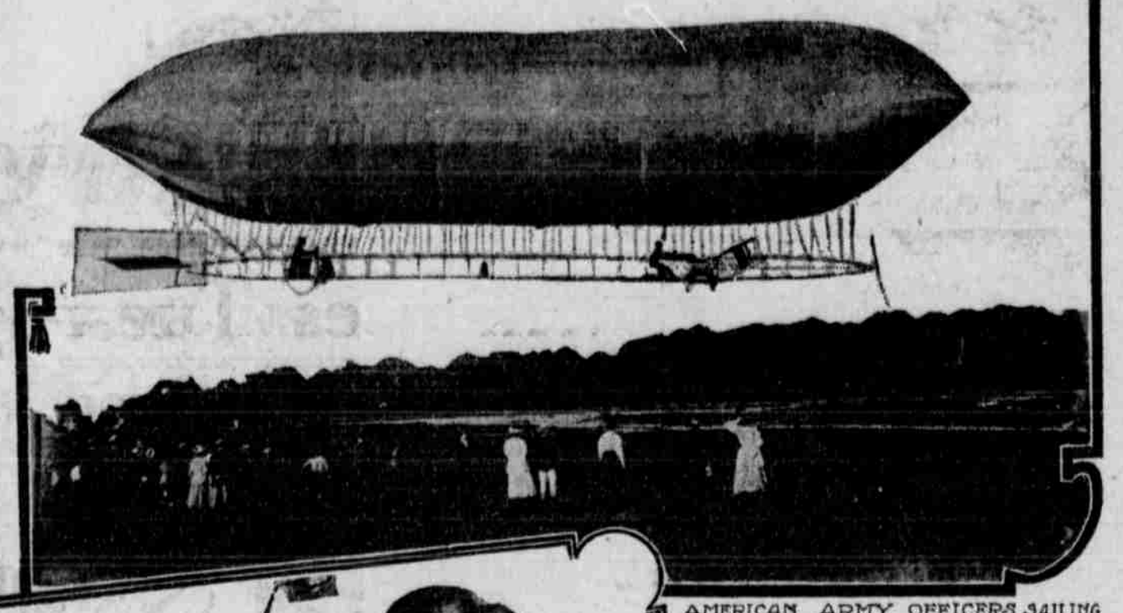
PUBLIC and private interests in the United States are now working energetically to combine the fruits of those two twentieth century innovations—wireless telegraphy and practical sky craft. It goes without saying that if airships and balloons and kites can be successfully made to serve as portable stations for wireless telegraphy the value of such aerial vehicles for the arts of both peace and war will be immeasurably increased. Likewise will wireless telegraphy be enabled to add further advantages to its already numerous points of superiority over all other forms of communication.

The United States government, through one or another of its branches, has taken up wireless telegraphy experiments via both kites and war balloons, but the greatest interest naturally attaches to the work with balloons. So far as is known, the United States signal corps is in advance of all foreign military bodies in its invasion of this significant field.



AMERICAN ARMY OFFICERS SAILING IN NEW DIRIGIBLE BALLOON

While the American army officers early realized the immense advantage that would accrue if war balloons could be utilized as wireless stations, there were several obstacles to be overcome ere practical experiments along this line could be entered upon. Foremost among these was the weight of the standard wireless apparatus of sufficient power for the exchange of messages between the ground and a balloon at a lofty height. This handicap has been met in a portable wireless set which has recently been designed by signal corps experts and the first example of which has lately been completed at the signal corps shops in Washington under the direction of Electrical Assistant H. B. De Groot.

THE NEW AERIAL WIRELESS SET AND H.B. De Groot WHO DEVISED IT

THE NEW AERIAL WIRELESS SET FOR USE WITH WAR BALLOON

Not only does this compact little wireless equipment conform to the requisite of minimum weight but it affords a solution of the chief problem presented in this new field—namely, the provision of safeguards against a spark from the telegraphic apparatus igniting the explosive gas which through accident or design might escape from the bag of the balloon. There is considerable difference of opinion among electricians as to what danger of explosion would exist under normal conditions. Some experts contend that, considering the air currents created by a balloon in motion there would be practically no danger, but the United States army aeronauts, cognizant of the tragic consequences that would assuredly follow any such explosion at a high altitude, have naturally been loath to take any chance and have had precautionary measures taken in the construction of the apparatus designed for their experimental work.

This wonderful new aerial wireless set, which weighs, all told, only about 70 pounds, occupies or rests upon a wooden frame of special design which measures 30 inches in length, 17 inches in width and 15 inches in height. The electrical energy for this cloud-climbing telegraph station is supplied from an ordinary eight-volt sparking battery, such as is used in automobiles. This part of the equipment weighs but 22 pounds, as compared with a weight of 50 pounds in the corresponding section of the lightest portable wireless set that would have been available for this work, had not the army experts evolved this special apparatus. By way of guarding against explosions, as above explained, the spark gap has been covered so as to exclude all gas and there is similar protection for the interrupter contact. For all that, this latter essential is housed in it always within view of the operator by means of a small mica window in the side of the case and with the view of the contact thus available any necessary adjustments can be made without opening the case.

This new wireless set for military work aloft, which, by the way, cost about $300, has the same type of key and telephone receiver found in the portable wireless sets which have lately made their appearance in the commercial field. A thoroughly unique feature, however, is the "aerial" from which the sound waves are sent on their long journey. The aerial devised for wireless telegraphy via sky scouts consists of three wires, each 150 feet in length, suspended from a cross-arm attached beneath the keel or car of the balloon. It will be understood that these wires dangle below the cloud clipper and thus incoming messages, instead of being caught above the station, as in all earthly installations, will be caught below the station. In lieu of a ground wire the aerial telegraphers will make use of the wire netting which braces the balloon car.

The army's first experiments with wireless telegraphy via aerial craft were made with an ordinary spherical balloon, but the new wireless set was designed primarily for use with the war department's lately acquired dirigible No. 1 and when in service the wooden platform carrying the electrical apparatus rests across the keel or skeleton framework of the balloon, being supported upon two horizontal rods of the keel. The dirigible which is destined to serve as Uncle Sam's first portable aerial wireless station is 120 feet in length and the car or keel which carries the wireless apparatus is made of spruce.

While the electrical division of the United States signal corps has been busy with plans for wireless work via free balloons that would prove of immense value in time of war, other branches of the federal government have been looking into the possibilities of mid-air telegraph stations designed to serve the pursuits of peace. Chief Willis Moore and his associates of the United States weather bureau have long taken an especially keen interest in this subject and interesting experiments covering high-air work with both balloons and kites have been in progress for some time past at Mount Weather—that Virginia mountain peak where the weather bureau has assembled such marvelous equipment for the exploration of the upper air. Prof. Moore's primary interest in wireless telegraphy is as a means of transmitting storm warnings and weather forecasts, particularly the interchange between ships and shore stations.

It may surprise many persons to learn that wireless telegraphy via kites preceded by many years wireless telegraphy as we know it to-day. Forty years ago, long before either Marconi or the Hertzian waves were ever heard of, a resident of the national capital, Mahlon Loomis by name, announced that he had solved the problem of transmission without wires by the expedient of raising kites to great altitudes and telegraphing between them. He claimed to have transmitted messages a distance of more than 400 miles, and such was the interest in his work at the time that congress passed a special bill authorizing the incorporation of a company to continue and extend the experiments. However, the project came to grief in the panic of 1873.

Latterly, when the development of wireless telegraphy again turned attention to the possibilities of the use of kites as ending and receiving stations it has been demonstrated that the kites have exceptional qualifications for such functions. When a kite is flown at a great altitude a strong current of electricity is generated, especially when the kite is flown by wire instead of by cord. At Mount Weather, where piano wire is used, so strong a current is brought down from the clouds that it has been necessary to insulate the reel on which the wire is wound. This presence of the magic current in force is manifest even on clear days, when there is no suggestion of an electrical storm. Now, experiments are in progress with a view to using this captured current for wireless telegraphy. Telegraph instruments are cut in on the kite circuits and ere long a test is to be made as to the possibility of communicating between two kites flown at points located 60 miles apart.

WIRELESS TELEGRAPHY VIA KITES

Prof. Alexander Graham Bell, inventor of the telephone, who has been engrossed for several years past in experiments with kites formed from tetrahedral cells and who has latterly designed a man-lifting kite that has made some wonderful performances, has included wireless telegraphy as one branch of his kite investigations. For this telegraphic work he has employed a kite of comparatively modest size, preceded by a small pilot kite, and these have usually been flown at a height of about 2,000 feet. The kites carry aloft telegraphic equipment in the form of ordinary green electric-light cord, to the upper end or receiving terminal of which is attached 400 feet of antennae wire. The telegraph operator is stationed close by the reel of piano wire—the point from which the kite is sent up.

Dr. Bell has had the co-operation in these experiments of Mr. De Forest, inventor of the wireless telegraphy system which bears his name, as well as the aid of other wireless telegraphy experts. The original kite messages via the artificial birds sent aloft by Dr. Bell were transmitted a distance of only six miles, but gradually this was increased until the transmission attained hundreds of miles and included the exchange of aerograms with steamers more than 100 miles at sea. In one experiment the telegraph operator caught the messages after passage through the bodies of two men who stood at the side of the receiving instrument. The men clasped hands and one grasped the telegraph wire from the kite with his free hand, while the other held in his the receiving instrument.

How She Identified Twins.

The Beverly twins, Fred and Frank, were such exact counterparts of each other that none of the neighbors could tell them apart and even their mother sometimes had her doubts. The resemblance is accentuated by the fact that they are dressed exactly alike.

"How in the world can you yourself tell which is which, Mrs. Beverly?" asked a caller one day.

"To tell the truth," she answered, "I can't always; but if I hear a noise in the pantry and I call out, 'Fred, is that you?' and he says, 'Yes, mamma,' I know it's Frank, and that he's in some kind of mischief."—Youth's Companion.