



The Napoleon of the Future May Look Like a Man Playing Upon an Organ.

By Harold Chapman.
A transatlantic service is to be the next step in wireless telegraphy, according to Dr. Lee De Forest.

The Metropolitan Life tower station of the Radio Telephone Company in this city is now in operation. It contains the most modern high power wireless equipment, especially constructed to span the thirty-eight hundred miles of land and water lying between New York and Paris.

The antenna in Paris which will grasp out of the ether the click of the instrument in the 700-foot Metropolitan tower extend high in the air above the 900-foot Eiffel Tower. The Eiffel Tower station is the highest in the world and the Metropolitan is the second. Dr. De Forest is soon to go to Paris to install the same powerful equipment in that station which is now doing duty in the Metropolitan station.

Previous attempts have been made by other well known wireless experts to accomplish this feat, but never, it is asserted, under such auspicious circumstances. Never have such high towers or such powerful equipment been used. Experiments conducted at Brant Rock, Mass., from December, 1905, to October, 1907, in an effort to reach Machribsnah, Scotland, but he was unable to maintain a uniform frequency of oscillations, which is essential in long distance wireless.

The greatest success yet attained in this direction is the service of the Marconi company between Gliden, Ireland, and Glace Bay, Nova Scotia. This distance, however, is much less than that between New York and Paris.

Dr. De Forest in April, 1906, sent a message of eight hundred words to Ireland from Manhattan Beach. In this instance tetrahedral kites were used to support the antenna.

One reason for Dr. De Forest's assurance that he can accomplish the feat of spanning a space of nearly four thousand miles is the fact that while experimenting at the Eiffel Tower last summer he "picked up" wireless messages from the station at Glace Bay, Nova Scotia.

sound comes to him from the thin wire groping against the sky. He hears only the throbbing of the blood in his head. Nevertheless, the ether is turbulent with sound waves.

There is a little pointer that a thumb-screw can move over a dial. The man turns this pointer past the 1,000 mark, past the 1,100 mark, past the 1,200 mark, and then stops.

A voice bursts upon his ears, calling out of the emptiness: "Hello! Hello!"

The instrument is "in tune" with some other instrument, perhaps far below the horizon, and the waves of ether, surging across the charged wire that reaches toward the sky, are of the frequency to which the listener's instrument has been "tuned" by turning the pointer across the dial. The two instruments, many miles distant from

each other, are vibrating in unison, and now the conversation can go on.

The days of the "wigwag" in the navy are numbered, as the admiral of today issues orders to his captains by word of mouth from the bridge of his battleship and confers as to the disposition of the enemy, real or imaginary, in the same

manner. He does not send a Jackle out to cut strips out of the atmosphere or run up signal flags to the masthead. Instead, he, for example, puts his mouth to the transmitter beside him on his desk and calls, "Hello, Smith, where are you now?"

And out of the receiver at his ear come Smith's voice and the words, "Five miles astern, sir." And the admiral says, "Would like you to come and have a bite with me at noon," or "Report on board the flagship with the least possible delay." And over the surging waters, on the wings of the wind, comes the answer, in either case, "All right, sir."

"Fighting Bob" had the honor of being the first naval commander in the world to speak in this way with his captains, whether they were two cable lengths away or five or twenty miles, and to the American navy belongs the honor of having been

mountain climbing with a lot of the other girl students. Speaking of attending rehearsals, I've been at them twelve days out of the first fourteen of this season, and I try besides to attend all the performances possible.

I asked her if she thought influence helped to advance a singer, and she replied: "Of course, the influence of my teacher helped me to get a hearing, but I see now that if one can 'deliver the goods' one gets on, and that's all there is to it."

I learned that Miss Gates made her first appearance (it takes two successes out of three appearances to ratify a contract, as a rule) on April 17 as Aennchen in "Der Freischütz," receiving seven

favorable criticisms out of eight. I asked her if she was nervous that night.

"Well, I guess! Being an American and a beginner, there was the real thing before me for the first time, and I had to get used to the footlights and the great audience! I knew I could do it, though! When I first heard that Aennchen had a lot of dialogue, I expressed fear that I couldn't do it, but Herr Blech said: 'You speak a beautiful German; you need not fear that.' So I said that if he thought so it would surely be all right. So I learned it, but I had dialogue for breakfast, dinner and supper and even in my sleep, and every day when I walked out with the girls they heard me repeat it."

So far so good. She was then to make her second "guest" appearance in May as Zerline in "Don Juan," but was asked suddenly if she knew the role of Philina in "Mignon." She said, "No, but I could learn it." There were only eight days to September 25, when it was to be given.

"But they all felt that I was helping them out," Miss Gates said, "as Fraulein Dietrich, who sings that part, was ill, so that they need not send for a 'guest' from another city, and I had all the rehearsals I wanted—two a day sometimes. I just told them I couldn't do it without lots of help, and that they must realize that my contract hung upon my success, and so every one was perfectly lovely to me, and I got through beautifully and my contract was ratified. After that I was given the part of the 'Huguenotten,' to learn in eight days, but I learned it in two and sang it on May 15 without a scene rehearsal, and every one was gracious and lovely, even the chorus prompting and helping me."

"In this part I have to ride a horse on to the stage, and they said I was the first one who had ever galloped on. I went to the royal stables twice before the performance to practise, and there I found a groom with my horse ready saddled, punctual to the minute, and a dresser to dress me in the jockey trousers and boots, and I practised in the riding sal where the princes and princesses are given their lessons. The groom was so tickled over my Western riding, and said it was easy to see that I had ridden on a man's saddle before."

Marvellous Achievements Expected from This Comparatively New Discovery.

"It seems to me a wonderful music factory—discipline like the military, which I never before appreciated. Everything goes off to the minute—you're fined if you're late, and there is absolutely no nonsense going on in the place. The stage hands alone are marvellous. Everything is businesslike, and people scarcely get to know each other personally."

Shaking hands in cordial "auf wiedersehen," I came away with the impression of a quick witted, sparkling, natural American girl, unspoiled, yet pleased as Punch with starting her career at the Kaiserliche-Königliche Hof Oper of the most musical country in the world.

At the Komische Oper there are two Americans engaged. Helen Ailyn, a Chicago girl, is about to make her debut as lyric soprano, having a five years' contract. She will sing such roles as two of the sweethearts in Jacques Offenbach's "Tales of Hoffmann"—the Doll, which is a coloratura role, and Antonio, which is a lyric part. The Julietta is dramatic, and this she will not attempt. "The Tales of Hoffmann" is one of the great standbys of this house, and has already passed its 500th performance.

Miss Ailyn says that she felt that good acting would count for even more than good singing in obtaining her contract here, and so she acted and sang first the Marguerite aria for the directors, and followed this by the "Barbier de Seville" and "Romeo et Juliette" arias, after which she came away with her contract signed. She has high D's, E's and F's in her voice, with a big middle range, and great facility in the use of the organ. I asked if she did not find German more difficult to sing than the French or Italian. "No, not after I learned to darken the tone as the German requires. After singing German for a while I find it difficult to go back to the other languages."

OF NO LEAN CITIES.
Though Miss Ailyn was born in Philadelphia and her parents now live in Chicago, which city she therefore calls "home," she attended boarding school and received so much also of her musical education in New York that she feels herself a New York girl. She studied voice placement with the late William Castle, the Chicago tenor, of whose work she was a great admirer. Of this teacher Miss Ailyn says:

"His voice was of the most beautiful quality, and I felt that he would never do any voice harm, for under no conditions would he force. He did me a great deal of good, and though I've studied a great deal since I feel that he laid the foundation for me in such a way that it has never been necessary to change my placement."

"In New York I studied for two years under Frau Professor Jaeger at the Metropolitan Opera School, where I learned roles and acting, so that when I came abroad a year ago I had only to learn my roles in German. I sang last winter a few 'guest' appearances in Nuremberg, thinking to sing there a year perhaps if I liked it before taking a regular contract. But oh! if you ever want to have a hard time just 'volunteer' somewhere in a small place. You have no standing in the company, and are looked upon as a stranger and intruder, and being American makes it hard any way, though you know the Germans like us."

"So I gave up my idea of 'volunteering' and was glad to get my regular engagement in Berlin, where I have no standing in the company, and where there are more Americans and they are better understood, and where it is so altogether delightful to live and work. I work every day with my Kapellmeister, Lowe, who helped place me. In Chicago they wonder why I want to live away from my lovely home and family and friends, but the operatic stage drew me irresistibly. Mother wants me to go home every summer, but the sea-sickness I am subject to would undo all the good of the holiday, so I am planning to visit next year the performances at Oberammergau and Bayreuth."

Hoese, who is now singing principal tenor roles at Mayence.

Miss Wetmore was booked for another Canadian tour with Mme. Schumann-Heink two years ago, when she decided to come abroad and be coached by Mme. Nikisch for opera. Last summer she visited home for a visit, was married, established her home in New York, and returned to continue her work with Mme. Nikisch.

Last spring Miss Wetmore, desiring an unbiased opinion of her fitness for the career she was undertaking beyond her teacher's—for Mme. Nikisch had predicted big things for her—obtained the latter's permission to sing before an agent, not expecting to get an engagement until another year had been spent in preparation. The agent, however, thought differently, and at once arranged for her to sing for the directors of the Komische Oper. For them she sang the "Traviata" aria and Strauss's "Prima Vera" waltz. She was at once engaged. Within one week she had sung for her first agent, had her contract signed and was on her way to America.

Miss Wetmore said: "Mr. Gregor is a great friend of mine, saying, 'I hope you will have great success.' I answered: 'I realize that three things are necessary for success—first, the voice; second, the temperament for acting; and, third, the musical intelligence.' To which he replied: 'You have shown that you have the first requirement; it remains to be seen if you have the second; being an American, I give you credit for having the intelligence.'"

I asked Miss Wetmore how she felt about the acting, to which she replied: "Singers coming from America are likely to be unconsciously bound by the Puritanism which still prevails there a little. The world has had a reaction from the time when the opera singer need have only a few staccato gestures, so that he sang well. People now care almost more for the acting than for the singing, and there are people on the operatic stage today who might better be on the legitimate stage, so much histrionic ability have they and so little voice. If it goes much further there will have to come another readjustment, when the balance between the two sides of the operatic art will be better maintained."

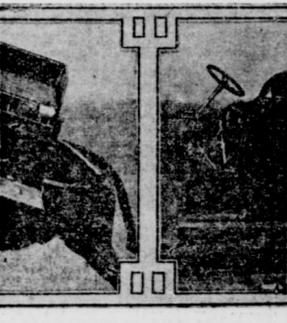
Miss Wetmore sings all the coloratura roles, such as Rosina in "Barbier de Seville," Violetta in "Traviata," the Queen of the Night in "The Magic Flute," Gilda in "Rigoletto," Marguerite in "Faust" and many others. She has not yet made her debut here. Mr. Gregor advises her to go slowly, and she values greatly the opportunity to remain under Mme. Nikisch's eye while gaining her first experience.

The latest addition to the operatic field in Berlin is the Volksoper, previously known as the Lorzing Theatre, which is run on the popular price scale. Here, on September 3, Mrs. Rachel Frease-Green, the American soprano who made such a remarkable success at Covent Garden last January, when she made her operatic debut as Sieglinde, made her Berlin debut as Violetta in "Traviata" with even greater success.

Mrs. Frease-Green sings the Queen in the "Huguenotten," Lucia, Juliette, Desdemona, Gilda in "Rigoletto," Marguerite in "Faust" and Mathilde in "William Tell." She also does all the "Jugendliche" dramatic roles, such as Eva in "Die Meistersinger," Elsa in "Lohengrin," Elisabeth in "Tannhäuser," Sieglinde in "Die Walküre," etc., but Jean de Reszke, with whom she studied, has always encouraged her to make the coloratura roles her specialty.



PORTABLE WIRELESS FIELD SERVICE FOR ARMY USE.



PORTABLE RADIOPHONE IN AUTOMOBILE.

realizing by that time that proper preparation would probably mean an operatic career. Under Mme. Corelli she developed her voice into a fine coloratura, and learned in German all the big roles.

Early last spring Miss Gates sang for the head stage director, Herr Drüscher, and he said at once: "We have no need for a coloratura soprano just now, but I like your voice and the way you use it. We have so many foreign singers now, however, that there was but one German singer in the cast of a recent performance of 'Tannhäuser,' and there is beginning to be a cry against it."

Mme. Corelli here spoke of Miss Gates's thorough musicianship, and Herr Drüscher said he would have her sing for Conductor Blech, and so this was arranged. Herr Blech was very pleased and said he would arrange at once for her to sing for Intendant Graf von Hülsen.

On the date set for this hearing Miss Gates was ill, however, and couldn't sing. Fortunately she received another chance, when she sang from the stage for Graf von Hülsen and the rest of the powers the "Ros" aria from "The Marriage of Figaro," the waltz song from "Romeo et Juliette," the mad scene from "Lucia," the "Huguenotten" aria, the "Lakmé" "Bell" song, and then was asked to repeat the "Ros" aria.

Here Herr Blech called to her and asked her what she wanted. "An engagement," was the quick and pointed response. "The Fach is filled. Have you ever been on the stage?" "Yes, in America in light opera." "Then you know if you can act?" She gave confident answer in the affirmative.

When I asked her at this point if she were nervous, she answered in her naive way, "I nearly died of fright."

She was then dismissed, but went

away with raised hopes. While waiting for the final decision of Graf von Hülsen Miss Gates's agent offered her a very good engagement at Frankfurt-on-the-Main, which she accepted. One is always free to break such an engagement within twenty-four hours after signing, and twenty-two of those precious hours had elapsed, when over the 'phone came the message that little Miss Gates was engaged for the Royal Opera, and the Frankfurt engagement was called off. This meant the possibility of living with and having daily lessons from Mme. Corelli, which is what Miss Gates values particularly in being engaged in Berlin. According to the terms of her contract, which far exceed her expectations, she is engaged for five years, beginning September 1 this year, with a salary on a sliding scale, and though no stated number of performances is guaranteed the first year she will have a hundred appearances each following season.

The Invasion of Germany.

Continued from second page.

A TYPICAL WESTERN GIRL.
I asked Miss Gates how she spent her time and what she liked best to do. "Oh, I love to cook and sew and swim and ride horseback and row, but I haven't time now for anything but studying and attending rehearsals and my daily walk of an hour. At home they call me a typical Western girl because of my love of outdoor sports. I once went on a bear hunt out West with my father, which was great sport—though we didn't shoot any bears!" This last ruefully.

"This summer in Switzerland, at Vierwaldstädter See, I did a great deal of

riding on a man's saddle before."

"After that I sang Philina twice more, Aennchen twice again and the Pace once more before the opera closed on June 14, getting paid for each performance the same as any other 'guest.' Since the opera opened again I sang on August 23 as Berchen in Figaro's 'Hochzeit,' and on the 29th Philina again as 'guest,' and now my regular engagement starts."

Here I interrupted with a question about her impression of the Royal Opera,

MAY CALL PARIS BY PHONE.

At that time the inventor also established connection by means of his wireless telephone with a vessel of the French navy in the Mediterranean, a distance of six hundred miles. All of the stations of the Radio Telephone Company are provided with this latest aerial marvel, as well as the wireless telegraph. Dr. De Forest believes that the day is not far distant when fliers in New York may call up mother in Paris by the wireless telephone, decline to give up fifty millions for the honor of calling Count Razza Mazazza son-in-law and demand that she return with Muriel by the next transatlantic aeroplane.

Few persons are aware that the Radio system is already operating wireless telegraph in land stations and on vessels of the Great Lakes. The radio system is simply an outgrowth of the development of the wireless telegraph, and the prediction that it will within a few years cover as great distances as the wireless telegraph now does is not at all far fetched. Indeed, scientists believe the development of this discovery has only fairly begun.

It is asserted that within the near future wireless communication may be established with the most isolated corners of the earth, that the distinguished hunter may take with him into the African jungle an apparatus which will transmit him to the newspaper printer, and that his latest conquest, but this is not yet, though Dr. De Forest has given much evidence of its probability.

The invention promises to be extraordinarily useful in the field of humanitarianism. Already wireless has been the means of saving hundreds of precious human lives at times of notable disasters at sea. The case of the Florida and the Republic is a striking example, and the untold good it has done in warning vessels at sea and on the Great Lakes of approaching storms may not be measured.

TO BE USED IN AERONAUTICS.
Its greatest work along this line in the years to come will be in the field of aeronautics. The future Mauretania of the air will carry in its equipment the radiophone. In its forty-eight-hour flight across the ocean the giant air craft may at any time signal the Metropolitan or Eiffel Tower, or in the event of accident to machinery, flash a C. Q. D. to the nearest vessel of the sea, which would bring assistance and a possible "landing place" for passengers and crew.

A forecast of some such use of the device is had in the published papers of A. Leo Stevens, the well known aeronaut, who asserts that a wireless means of communication is essential to the development of the airship. Mr. Stevens in a recent plea for governmental regulation of ballooning, said:

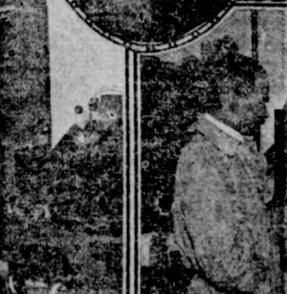
SENT WIRELESS PORTRAITS.

A forecast of some such device is embodied in the apparatus with which Hans Knudsen, a Danish inventor resident in England, started London a few months ago. He succeeded in transmitting portraits to a distance with astonishing rapidity and without wires. By utilizing the peculiar properties of the metal selenium, a metal which varies in electrical conductivity with the amount of light by which it is illuminated at the moment, it ought to be possible to exhibit one to another not in the form of a photograph but as a living though impalpable presence. In other words, the inventor of the future will magically transport one's body to another—an intangible body, perhaps, but still something that can be seen to move, gesture, smile and nod, even though one may be in New York and the other in San Francisco.

Without going into the technical intricacies of the radiophone, some points of popular interest may be singled out. Down from the roof where the receiving wire—technically termed the antenna—is strung comes a relay wire, connecting eventually with the box, from which hang a receiver and a transmitter, the former fitting to both ears and the latter similar to the ordinary article in everyday use. The transmitter is large, however, and it is warm, even hot, as if it had been long in midsummer sunshine. That is the effect of the high power induction used.

Before the wire reaches the transmitter box its current is sent through a small glass bulb, in appearance like an ordinary incandescent light, which is filled with vapor from the flame of dehydrated alcohol, the office of which is to heighten the frequency of the electric current employed. Nothing else is open to the view.

EIFFEL TOWER OPERATING ROOM.



DR. LEE DE FOREST IN HIS LABORATORY.

METROPOLITAN TOWER OPERATING ROOM.

THEY LOOK IT.
Mrs. Brookdealer—Johnny just spilled the ink bottle over my dress. Get it up Mr. Brookdealer—Never mind. Get it up and I'll take the book down to the store and sell it as one of the humorous holiday volumes with illustrations by the author—Puck.