

## Colonel Carty Receives Edison Medal

THAT the telephone has at last come into its own was a statement made by E. W. Rice, Jr., president of the American Institute of Electrical Engineers, in delivering the Edison Medal to Colonel J. J. Carty, and in his speech accepting the medal, Colonel Carty said that the things that have been accomplished since the war broke out, and which are military secrets that cannot be revealed, are as wonderful and important as any of the marvelous things that have been done in the past.

### "A Great Genius"

SPEAKER after speaker acclaimed Colonel Carty as a great genius who had helped to make this possible. In his address, Dr. Michael I. Pupin said:

"When I speak of the American Telephone and Telegraph Company and its splendid achievements in telephony, I always think of John J. Carty." Referring to his first meeting with Colonel Carty nearly thirty years ago, Dr. Pupin said: "He always looked ahead like a prophet, and was always ready to speak of the telephone work to come. At that time telephone engineering was mostly concerned with short distance work, but Carty always talked of long distance work. He looked twenty and thirty years ahead, and it was this prophetic vision of his, used in guiding the engineers under him, that has produced the marvelous telephone achievements which are now common knowledge."

President Rice paid a glowing tribute to Colonel Carty in presenting the medal and diploma, concluding in these words:

"The Edison Medal Committee has awarded you this medal and this diploma in recognition of your work in the science and the art of telephone engineering. It gives me great pleasure and great honor to present them to you in the name and in behalf of the American Institute of Electrical Engineers. We all know you greatly merit both the medal and the diploma."

### Col. Carty Honors Associates

BUT Colonel Carty refused to accept the encomiums for himself alone; he characteristically insisted upon sharing them with his associates, saying in his speech, "A great deal of credit has been given to me to-night, but I shed that credit over the entire Bell System, where it belongs." Again he said, "Whatever I have been able to accomplish has been due to the aid and assistance rendered to me by men

associated with me in the Bell System."

To be awarded the Edison Medal is the highest honor that can be conferred upon an American engineer. The award is not made upon the basis



Colonel J. J. Carty

of the candidate's estimate of himself, but represents the opinion of the great body of American scientists as to his eminence and worth in the profession.

Every one of the happy family of the Bell System will read with pride and a greater feeling of loyalty to the organization the speech of acceptance made by Colonel Carty, but first some of the allusions which would not be understood should be explained.

In his address, Dr. Pupin humorously referred to Colonel Carty and himself as both being of Celtic origin, for, he said, Colonel Carty is Irish and he is Serbian, and the Serbians are called the Irish of the Balkans,—therefore, they are both Celts!

### Speech of Colonel J. J. Carty

AFTER such an ovation, and such a magnanimous and generous introduction, it is almost impossible for me to find words adequately to express my feelings. I have been very much interested in learning a secret tonight from Dr. Pupin. I had always wondered about that "Michael" part of it. That name, with his most generous praise, seems to me conclusive

evidence that many of his ancestors have kissed a certain stone in a certain castle.

On an occasion of this kind, it would seem to be the privilege of the speaker to take all the credit that belongs to everybody else and heap it upon the medalist. You all know that is the proper thing to do and you make allowances for him. You notice how easily he slipped out of that loading coil business. I dare say that nine-tenths of the people here tonight believe I was responsible for that great invention of his. In fact, I am quite sure that if Dr. Bell had not been here, he would have lost the honor of inventing the telephone. But you know what is in Dr. Pupin's heart. He wishes to say a great thing for telephone men and for the telephone art, and I am with him on that. I will talk about telephone men and the telephone art as long as anybody will listen to me.

### TELEPHONE ART PURELY AMERICAN

Now, concerning the telephone art, it is very proper to speak of it here, before the American Institute of Electrical Engineers, and before so many of the representatives of the Bell System, before the inventor of the telephone, and before officers of the American Telephone and Telegraph Company. The telephone art is an American art. It was not imported from Europe. It was originated here in America by an ex-president of the American Institute of Electrical Engineers, Dr. Alexander Graham Bell, who is here on the platform now. Beginning with Dr. Bell, and at a time where there were no electrical engineers, and when our Institute did not even exist, every substantial improvement in the telephone system has been made here in America, and has been adopted and put into use by the Bell System, practically all of whom, Dr. Bell, Mr. Vail, Mr. Bethell, and hundreds of others, were all members of this Institute. I think there is no other society in the world of whom it can be said that it has originated, created, and developed an entire art, and such a wonderful art! That can be said of the American Institute of Electrical Engineers, and I am proud to be able to say it here to-night.

Now, a great deal of credit has been given to me, but I shed that credit over the entire Bell System, where it belongs. In the beginning there was no telephone engineering. There were no telephone engineers. We had Dr.

Bell, who was the first telephone scientist, and Mr. Watson, who was the first telephone engineer. The men who were in charge of the Bell System then, men of great foresight, Mr. Vail and his colleagues, sought the advice of scientific men to be found only in the universities. Then they put engineers to work after these men and thus they formed, forty years ago, a combination of scientific minds and engineering talent, which is now becoming recognized as necessary to the success of all large undertakings.

The men behind the Bell System were the ones who were the pioneers in that method of research, and whatever I have been able to accomplish

and with that interpretation, I will be glad to accept these encomiums on behalf of my colleagues, and only in that way.

KEYNOTE FOR COMING YEARS IS "WAR"

Your president-elect, Professor Adams, has sounded the keynote for the coming year. We must not talk of peace. Our business at this particular time is war. You all know what has been achieved by the telephone engineers, scientists, and administrators here in America. While a great deal is known about the telephone art in time of peace, not so much is known about it in time of war.

It is a rather interesting coincidence,

mation of a reserve of men from the Bell System, who would volunteer and be ready to go if this country should ever get into the war. I took General Squier at once to Mr. Bethell, and we three had a conference, at which it was agreed that the Bell System would furnish many thousands of men for this reserve, and thereupon was started the organization of the Signal Corps Reserve. Battalions were formed all over the United States, and when the war broke out twelve battalions of Bell Telephone men were ready to take the field.

PATRIOTIC EFFECT

Unless we had had the generous,



The Edison Medal awarded to Colonel J. J. Carty. The highest honor that can be conferred upon an American engineer

has been due to the aid and assistance that has been rendered to me by these men and by those that have been associated with me in the Bell System. Most of them, as I said before, have been or are now members of this Institute. I think I can say, without qualification that my company, the Bell System, has never refused me any request which I have ever made, for a man or for a dollar for research. Under such circumstances, it is only natural that important results should have been obtained.

If it had not been for the wonderful coöperation of all these men, none of these results, which we hear about tonight, could possibly have been accomplished. So, interpreting Dr. Pupin's praise in those terms as he really meant it,—spreading it out over the entire Bell System and among the members of the American Institute of Electrical Engineers—in that respect,

but it happens that here on the platform are seated my two chiefs, Mr. U. N. Bethell, under whom I have the great honor to serve in my civilian capacity, and Major General Squier, Chief Signal Officer of the United States Army. To those two men, more than to anyone else, belongs the credit for what the telephone is doing and will do in winning this war. At a time when it seemed that America was not going into the war, at a time when we were discussing preparedness, General Squier—not then, at that time, Chief Signal Officer, but looking far ahead, as is his custom—and, gentlemen, my judgment is that he looks straight ahead and his vision is true, saw that the Signal Corps, as then constituted, was far too small and inadequate, as were indeed all other departments of the Army, to cope with the new situation. He came to me to ascertain what could be done in the for-

far-sighted, and patriotic action of Mr. Bethell, backed up by the Board of Directors on the one hand, and that of General Squier on the other, when General Pershing sailed he would have been deficient in his Signal Corps personnel. As it was, young men, going about their daily occupation as telephone engineers, suddenly received the word, and on the same ship, with General Pershing's own personal party, went along some of these young men as officers in the Signal Corps.

Altogether there were more than twelve of these battalions formed, and all of them are in France, doing wonderful work—work which will form a very important part of the history of this war.

I might go on and tell you of many other plans which General Squier laid out, with the assistance of Mr. Bethell and myself. Many of these are still military secrets, but I can assure you

that the work that has been done under General Squier in war telephony is quite as wonderful, and the results will prove to be just as marvelous, as the most wonderful exhibition that you have ever witnessed of the peace telephone system.

It was not only in the Signal Corps under General Squier that this idea of the Bell System's being ready for war was developed, but in the Navy as well, under Secretary Daniels, important work was accomplished. It was on May 6, 7, and 8, 1916, that the Navy ordered the mobilization of the telephone and telegraph resources of the Bell System. During this entire period no method of communication was employed except that furnished by the Bell System.

**BELL SYSTEM WAS PREPARED**

To show how thoroughly prepared the Bell System was, I might say that during these three days, Admiral Benson picked up the telephone and talked to the extreme Northwestern part of the United States,—to Seattle. He also talked to Mare Island, San Diego, then across to the mouth of the Mississippi,—to Algiers, then to Pensacola (Key West was not in the Bell System then, but it is now). Next he talked with the Charleston and Norfolk navy yards, Washington, Brooklyn, and Boston, as well as the Portsmouth Navy Yard, and finally back to the Great Lakes,—making a ring around the United States. He called up, in quick succession, every one of these Naval stations, giving orders and receiving information by word of mouth. Finally a message was sent by Admiral Benson to the battleship New Hampshire, at Hampton Roads, by wireless telephone, ordering the captain of that ship to proceed to sea and report his position every hour by telephone, which he did. That is the first time in our Navy, or in any other navy, that this has been done.

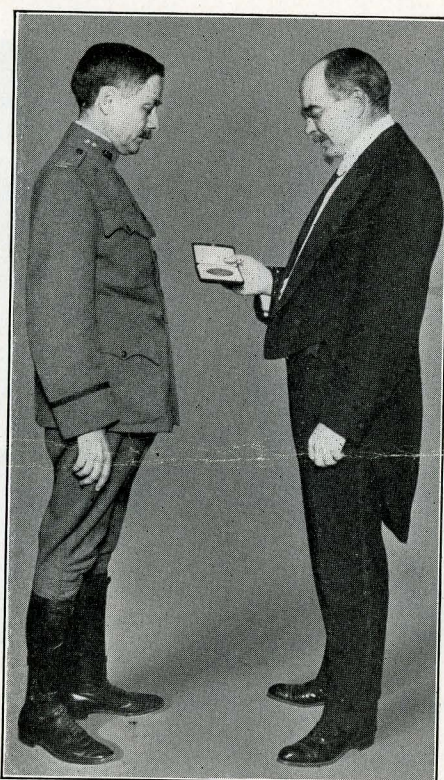
It is also rather interesting to know that Mrs. Chandler talked to her husband, she being in her home and he on the bridge of his ship fifty miles at sea. This was a romantic incident not planned for the mobilization, but very much appreciated by every one.

Captain Bennett, in command of the Mare Island Navy Yard in California, talked by means of the transcontinental telephone wires to the radio tower at Arlington, Va., and thence by radio telephone to Captain Chandler at sea on the bridge of the New Hampshire, during a storm in the Atlantic Ocean. Captain Chandler and Captain Bennett, one on the Pacific Coast and the other out on the Atlantic Ocean, talked with each other by

telephone and recognized each other's voice.

**NAVY MOBILIZED BY TELEPHONE**

When the war broke out, the Navy had a mobilization plan ready, and within one hour after the word was given, the men of the Bell System, in coöperation with the Navy, were moving in all parts of the United States, and the system which worked so successfully before the mobilization, went into immediate effect, though in greatly augmented form, proved of wonderful service to the Navy. Plans that General Squier had worked out also went into successful operation, and the advantages of



Colonel Carty receiving the Edison Medal from President Rice

his foresight, as well as the planning of these gentlemen [pointing to General Squier and Mr. Bethell], are becoming more and more apparent, and are going to be of the utmost importance in winning this great war.

I wish that I could take up your time long enough to tell you about the wonderful work of the many individuals that compose the Engineering Department, the scientific department of the Bell System and the Western Electric Company, because that is the only part with which I have to do. While it is an important matter here to technical men, to engineers, it is by no means the "whole works," as one would think to hear our good friend Dr. Pupin tell about it to-night. This

wonderful organization consists of a personnel of more than 200,000 men and women. I might mention here that 34,000 are of draft age, with 15,000 in Class 1, and upward of 8,000 of them are already in the war. It would be more correct to say that these 8,000 are in the Army or the Navy, for the whole 200,000,—the entire Bell System,—are in the war, and in it to win, all doing their bit day or night, whether in uniform or not.

The Engineering Department numerically is but a small fraction of this vast total, and while we do an important work, our work would be useless were it not for the fact that it is matched by the efforts of other departments in many other interesting and vitally important ways. It would be of absolutely no value unless all of our activities were coördinated and aided by such men as Mr. Bethell, active Senior Vice-President, by Mr. Vail and his distinguished associates among the vice-presidents and on the boards of directors. Therefore, these results that have been obtained are the results achieved by a great institution—an institution which has been far-sighted, and has recognized the importance of science and scientists, of engineers, administrators, business men, and financiers. To these men, those who have supported our engineers and scientists, we must give all the credit, because if they had not taken the broad view they did, none of these results could have been possible. We could not say, as we now can say, that the art of telephony is an American art, and that although all the great nations of the world, except this country, have for many years been engaged in the telephone business, not one of those governments has contributed a single substantial factor to the outcome.

All improvement has been done right here in America, by men at some time or other, in some way, associated with this Institute and with this wonderful Bell System.

**NO HUNS, BUT ALL TRUE AMERICANS**

We hear a great deal about the German scientist and the wonderful things he has done and has been planning. Many years ago, when German Kultur was interpreted by many to mean culture, it was suggested to me that we should send to Germany to get some of the Herr Doctors to teach us high science. I always opposed that, believing that the mind of the Yankee boy, when turned to scientific problems, surely would outdistance the German, and the young men who have collaborated with me all these years are graduates of over one hundred universities, all here in America.

When at our entrance into the war there was a searching of hearts and a census taking, to find out who was loyal and who was to be suspected, I know that you will be pleased to hear that among all these scientists and all these engineers, all working in the Bell System all over the United States, we were not able to find a single Hun. They were all true Americans to the core. The Bell System is 100 per cent. American.

Now, ladies and gentlemen, I do not feel that I should take up your time with any further remarks, and I will close by saying how very grateful indeed I am to receive this great honor. I hope that you will make due allowance for all that my fellow-countryman here (Dr. Pupin) has said about me, and that you will understand also the magnificent work which has been accomplished by him and by the wonderful young American engineers, and scientists of the Bell System.

**Noted Persons Present**

THE occasion on which this presentation took place was the regular annual meeting of the American Institute of Electrical Engineers, held in the large auditorium of the United Engineering Societies Building in New York, May 17. There were more than one thousand men and women present, including distinguished members of the Institute, members of the Telephone Society of New York, and other guests. On the platform were Dr. Alexander Graham Bell (who was not on the program, but who, when called on, made a graceful speech in compliment to Colonel Carty), Mr. U. N. Bethell; Professor A. E. Kennelly, chairman of the 1917 Edison Medal Committee, and professor of Electrical Engineering at Harvard University and the Massachusetts Institute of Technology; Dr. Michael I. Pupin, inventor of the Pupin Loading Coil and professor of Electrical Engineering, Columbia University; J. L. Lardner, of the J. G. White Company; Professor Comfort Adams, professor of Electrical Engineering at Harvard University and the Massachusetts Institute of Technology, the newly elected president of the American Institute of Electrical Engineers; F. M. Herr, president of the Westinghouse Electric Company; Bancroft Gherardi, engineer of plant, American Telephone and Telegraph Company; Major General George O. Squier, U. S. A.; E. W. Rice, Jr., the retiring president, and F. L. Hutchinson, the secretary of the Institute.

In the audience were Mrs. Carty and a number of friends who occupied reserved seats.

The eight Edison medalists are as follows: Elihu Thomson, Frank J. Sprague, George Westinghouse, Wil-

liam Stanley, Charles F. Brush, Alexander Graham Bell, Nikola Tesla, and J. J. Carty.

**Telephone Society**

**Central Section**

THE Central Section of the Telephone Society of New York met on May 14, and enjoyed an evening that was unique in the variety of its entertainment. From musical selections the program skipped to a discussion of Russia, potato raising, and finally ended in a regular business meeting. Patriotism was the first thought of the assembly, for the meeting opened with the spirited singing of "America." Mr. Pitcher, of the Traffic Department, Syracuse, N. Y., and also the Auburn quartet, sang several delightful songs.

Mr. L. D. Layton read various articles that appeared in the *Western Electric News*, describing the present conditions in Russia.

A subject of timely interest that held the attention of all the would-be farmers for Mr. Hoover, was, "How to Raise Potatoes," discussed by Mr. Teall, of the Onondaga County Farm Bureau.

The Membership Committee reported the work of the year and stated that sixty-one new members had been elected to membership and two had been transferred from other districts.

The Nominating Committee reported the following names for office for the coming year, and the candidates were unanimously elected: J. P. Bernard, Chairman; A. B. Thacher, Vice-Chairman; R. B. Smith, Secretary-Treasurer; E. E. Lines, Chairman Paper and Meetings Committee; Executive Committee: A. M. Doyle, Syracuse; R. M. Gillespie, Syracuse;

W. W. Doolittle, Binghamton; J. E. Day, Elmira; W. J. Hartnett, Utica.

**Western Section**

MEMBERS of the Telephone Society from Plant, Traffic, Accounting, and Commercial Departments greeted Mr. J. S. McCulloh on his appearance before the Western Section in the ballroom of the Hotel Statler on Thursday, April 25.

Mr. McCulloh was billed as the man who "needs no introduction," and the smiles and handshakes given him by hundreds of Telephone Society members fulfilled the description perfectly.

Mr. McCulloh's subject was, "Telephone Work Over Here in Our First Year of War."

Before Mr. McCulloh's address, the following officers of the Telephone Society were elected for next year:

Chairman, A. R. Roberts; Vice-Chairman, J. V. Graff; Secretary-Treasurer, P. W. Helffenstein. Executive Committee: R. J. Wollmuth, New York Telephone Company; H. A. Cannon, New York Telephone Company; H. J. Schroll, New York Telephone Company; P. McH. Wygant, American Telephone and Telegraph Company; G. A. Schneider, Western Electric Company; F. C. Saunders, Connecting Companies.

Wire Chief Estes, of Charlotte, led the members in singing patriotic songs. The new film, "The Whispering Wires of War," showing the Signal Corps on the Western front, was an additional feature.

**Promotion**

Promotion comes to him who sticks  
Unto his work and never kicks,  
Who watches neither clock nor sun  
To tell him when his task is done,  
Who toils not by a stated chart,  
Defining to a jot his part,  
But gladly does a little more  
Than he's remunerated for.  
The man in factory or shop  
Who rises quickly to the top  
Is he who gives what can't be bought:  
Intelligent and careful thought.

No one can say just when begins  
The service that promotion wins.  
Or when it ends; 'tis not defined  
By certain hours or any kind  
Of system that has been devised.  
Merit cannot be systemized.  
It is at work when it's at play,

It serves each minute of the day;  
'Tis always at its post, to see  
New ways of help and use to be.  
Merit from duty never slinks;  
Its cardinal virtue is—it thinks!

Promotion comes to him who tries  
Not solely for a selfish prize,  
But day by day and year by year  
Holds his employer's interests dear,  
Who measures not by what he earns  
The sum of labor he returns,  
Nor counts his day of toiling through,  
Till he's done all that he can do.  
His strength is not of muscle bred,  
But of the heart and of the head.  
The man who would the top attain  
Must demonstrate he has a brain.

EDGAR A. GUEST.