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CHAPTER VI

What the Great War Brought to Owen Young

The beginning of the Great War in August of 1914 threw out of gear the whole industrial machinery of the country. Never was its utter unfitness to deal with a sudden industrial shock better demonstrated, nor have we often had a winter of greater suffering and uncertainty than that which followed. It was Owen Young's introduction to the problem of so stabilizing American industry/so that it would not go to pieces at the first rumor of a world disturbance.

In the General Electric itself the shock was temporary, for as it soon became clear that the trouble was not to be over in six weeks they were busy as were many other American manufacturers with foreign orders. Moreover, American industrial leaders had their minds on what they could and would be required to do if America was pulled into the struggle, as the more far-seeing had from the first believed inevitable.

The Army and Navy early in 1915/began surveying the country's resources, making their possible needs known to industry, bringing leaders into conference. One of these early undertakings which particularly effected the General Electric came from the Naval Counselling Board which Secretary Daniels formed in June of 1915.

At its head was Thomas A. Edison and among its distinguished members was W. R. Whitney, who brought back to his laboratory in Schenectady news of the needs of the Navy. Soon the whole force had turned its attention to considering them. By the time we went into the war the General Electric had a pretty clear idea of what it would be asked to do "to help win the war", and from Mr. Coffin at the top down there was a determination not only to do all they were ordered to do but more - all they saw to do.

What they were called upon to do was not merely to make in quantities things they knew how to make, but to improve and adapt on what they knew so that they would better fit the needs of the government - improve - adapt-and invent.

There was the searchlight - the General Electric had been turning them out on an average of six hundred and seventy a year, searchlights weighing three tons. The Army wanted something light, easily handled, something to spot bombing aeroplanes. what could the General Electric do? What they did was to produce in six weeks a searchlight which on its carriage weighed but half a ton. In 1917 they turned over nine hundred of these and in 1918 over seventeen hundred.

Then there was the turbine for the emergency fleet. Up to April 1917 they had never been able at the Schenectady works to turn out more than four a month. Before the armistice they were shipping them at the rate of twenty nine a month; these

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quarters of a million horse power in units of twenty five hundred horse power each.

There was the Navy's call for a submarine detector - a depot for this work was established at Nahant the day after we entered the war and within ten weeks they had a detector that gave results. Within five months it was declared practicable, and in December 1917 three General Electric engineers and several American naval men set out for England; went out on a British trawler located a German submarine and destroyed it. Twenty five hundred vessels were equipped with these detectors before the war ended.

The variety of demands bewilders the layman. J. W. Hammond in his unpublished history of the activities of the General Electric, from whose manuscript I am taking the figures used here, numerates articles for which the government called upon the General Electric:- "submarine motors, a special type produced amid great secrecy; compasses for aeroplanes, shipped from Lynn at a rate of five hundred a week, a thousand delivered even before the contract was signed; radio tubes at the rate of twenty thousand a week until a total of a quarter million was attained; winch-drives for captive balloons; bomb-releasing mechanisms for land and sea; and switchboards in such quantity that if placed end to end they would have made a sidewalk a hundred miles long - all this array of war-time material and war-time equipment was

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in process of swift, skilled and accurate production until every General Electric plant in the land was a humming beehive every hour of the twenty-four."

The General Electric's contribution to the war destined to have the most far-reaching after effects - the contribution which later was to introduce Owen Young to the public as a negotiator unusually daring, as well as unusually persuasive and conciliatory, was in the radio field.

The possibility of the radio as a medium for not only national but international communication had been proved before the war - thirteen years before, in 1901, the ocean had been spanned - marine radio was in daily use between the sea and shore and already had been the instrument of a large saving of life and property.

The greatest commercial development of the radio at the time the war came had been made by the British Marconi Company which was already planning a world-wide English control - a wireless system parallel to its control of the international cable system. In this country where much experimenting was going on, the most important concern was an off shot of this British Company, the American Marconi, controlled abroad but having many American stockholders.

Although messages had been sent across the ocean no inventor had been able as yet to perfect a transmitter which

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could be depended upon. The messages came by fits and starts - mutiliated - unreliable - what was needed, said those who knew the science, was something which would give a high frequency current capable of steady reporting.

In 1915 Dr. Ernest Alexanderson of the General Electric laboratory sought from the American Marconi Company at its New Brunswick, New Jersey station a practical trial of a high frequency alternator which he had developed. The alternator was installed and so satisfactory was its work that Marconi himself came over that year to negotiate for its control.

Owen Young will tell you, whimiscally, that his first wireless message came by mail and was signed - Marconi.

The message received in 1915 asked him to drop into the old Holland House on his way up town.

Mr. Young has declared that up to the moment he received this summons there probably was not a man in the General Electric who knew less of the discoveries and developments in radio going on in the research laboratory than he did, and that when he made his call on Marconi and was told by him that the British Marconi Company of England wanted to buy the exclusive rights to an invention which Mr. Marconi spoke of as the Alexanderson alternator, he had to confess, at least to himself, that he had never heard of the Alexanderson alternator.

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If he did not know he was not long in finding out, particularly when it turned out that if the British Marconi Company could make the arrangement it wished it meant millions of dollars of trade for the General Electric. The contracts for this trade would have been in time signed if the war had not laid its imperious hand on one after another of those interested - on Marconi who was suddenly called to the Italian service - on the British Company, preventing further immediate development, and a little later on the Alexanderson alternator itself - the Navy of the United States commandeering it as it did the devices and inventions of all the American laboratories interested in radio development.

But Dr. Alexanderson was not satisfied with the performance of his first alternator. He set about developing one much more powerful, indeed developed a complete radio transmitting system. This the General Electric offered to install at New Brunswick for the government's use. The offer was accepted - it was used throughout the war. But at the moment all of this meant little to Owen Young.

In a mass effort like this of the General Electric in the war it is neither practical nor fair to attempt to segregate the contribution of any one man. One man is important in proportion to his ability and his willingness to fit his contributions to those of others. In Owen Young's case it is particularly difficult

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because of the nature of his service. To begin with when we went into the war he was little known outside of the electrical world, and there he was known only as a lawyer who had had experience and success in dealing with the legal side of public utilities. what the General Electric knew and thought of Owen Young had not passed on as yet to the outside business world - nor had it touched the public at any point.

Most of the officers of the Company had specific war jobs. They were serving on national committees, boards, commissions. Mr. Coffin was occupied with the Red Cross and the Liberty Loan drives. Mr. Young sat on no committees; yet he did touch many. He seems to have functioned as a general liaison officer between the company and various boards, a kind of general counsel, who as the months went on was more and more valued for his skill in straightening out tangles, smoothing over misunderstandings, conciliating the irritated.

He worked constantly with the Priority Board. The General Electric was turning out quantities of machines necessary to manufacturers of various kind of war materials. It must have its materials promptly and in quantity if the flow of war products was not slowed up. It required skillful argument to get what you must have in that welter of demands.

When the time came that the nation was rationed on fuel, Mr. Young worked night and day keeping the various plants

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of the General Electric funished with coal; the homes of the workmen warm. Without coal all must stop. It was in no small degree due to his efforts that the General Electric plants never did stop for lack of coal.

Complicated and threatening situations directly related to production of war materials grew out of the condition of public utilities, particularly the street railways. It was essential that they be kept running in nearly all of the great cities, if workmen were to reach the plants turning out ammunitions, machinery of every type, clothing, shoes, food. Many of the street railways were in danger of bankruptcy. Their rates were fixed by public commissions, their expenses day by day mounted. They were obliged to extend their tracks into sections where in normal conditions there would be no need of a railway. They had to multiply their rolling stock to carry the increased number of workers; wages went up again and again. All materials were higher. The financing of the public utilities became one of Mr. Young's tasks. He must get them money.

It was grilling work - every hour a new problem. His days were spent in conferences - persuading, counciliating and sometimes no doubt threatening - his nights were spent on Pullmans - New York to Washington, New York to Boston, Boston to Schenectady, Buffalo, Chicago - never still. Never still and yet never in a hurry. Mr. John W. Elwood now a Vice-president of the ~~Radio~~ National Broadcasting

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~~corporation~~ Company was with Mr. Young through these years - sitting in the same office - and he declares that never in these feverish times did he see him unwilling to listen; always at ease himself, he never failed to put a caller at ease.

There is no doubt he regretted that he could take no part in any of the country's great volunteer campaigns.

"Unfortunately," he wrote to one who had urged him to speak in a drive, "the executive ranks of the General Electric are greatly depleted because several of our executives are giving practically their entire time to war activities. At the time their release was authorized by our Executive Committee for war work I assumed the burden of standing by and giving all of my time to the company. Under these circumstances it will be impossible for me to comply with your request. It is a matter of real regret to me personally that I cannot do so."

When in 1918 the limits of military service was raised to forty-five years, he wanted to join the army in any capacity. But he could not be spared, his friends would not hear of it and he, himself, must have known how essential he had become in the immense undertaking the country had on hand.

But if Owen Young felt the need of a job which made a more direct appeal to his sympathies, called louder on his creative faculty, he soon had it, for in the summer of 1918 the

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dissatisfactions and ambitions of the organized electrical workers became acute. The General Electric was able to settle the matter for the time being by submitting the demands of the men to the War Labor Board, agreeing of course to accept its decisions - and that was done.

But with the end of the war came a new attack. Organized labor generally seems to have felt in 1918 that this would be the strategic moment to demand full recognition - a closed shop in all the industries. The American Federation of Labor had already adopted a resolution calling on its officers to prepare for "one mighty drive to organize the steel plants of America" and had planned to begin the drive by an attempt to organize the United States Steel Corporation.

The electrical workers followed the same tactics and centered their attacks on the most powerful electrical unit - the General Electric. The trouble began in the Erie, Pennsylvania, works with some twenty percent of the men on strike, and spread rapidly to the Schenectady, Lynn and Fort Wayne plants.

Mr. Young sitting in his office in New York received from those in charge of industrial relations in these various places the detailed reports and explanations for which he asked. He in no way interferred with their decisions. They must stand or fall by what they did. But what was it all about? he asked himself. Why were the men so bitter? It was much more he was

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sure than appeared on the surface, in the irritated and summary explanations of management. There was a Works News, published in the Schenectady plant. It contained all sorts of communications from the workers. "Take a file," he told Mr. Ellwood his secretary "and from it compile what seems to be the men's complaints, desires, ideals."

Mr. Ellwood turned in a report such as few leaders of industry would have welcomed or studied seriously at that moment. But Owen Young heard in it the voice of the under dog and asked himself is there anything unreasonable about these desires? On the contrary - weren't they just what the company should be interested in helping the men work out?

Here is Mr. Ellwood's report, abridged, on what the workers were asking:-

"1) The workmen feel that the foremen are inhuman beings who lack any sense of what the personal touch in business means.

"2) The men desire to have some system of profit sharing or stock purchase plan inaugurated so as to take advantage of the thrift instinct instilled during the Liberty Loan campaign.

"3) They desire some sort of a representative plan.

"4) They desire to have the welfare work increased so that it will be evident that the Company is taking a personal interest in them inside as well as outside of the plant.

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"5) They desire to have what might be called a "Manager of Man Power."

"6) They desire to have thorough education and instruction - an opportunity for promotion and scientific selection of men and jobs."

He began to doubt what he had been told by management that it was all a question of wages and hours; that nothing else interested the men. Might it not be something more fundamental, the failure to provide a practical means of communication between employer and man? There were numbers of men in Schenectady that he had known back in Herkimer County. There were men that he had grown up with in Van Hornesville.

"If I had not decided to study law when I did I realized I might have been there myself beside them. The wages these men made were a matter of pride in Van Hornesville. When I came on to Schenectady they used to sit around in the grocery store and wondered what it was that Owen did - whether he had as good a position as Jim - earned as good wages.

"Now I knew that Jim and men like him were reasonable people, and if they were making trouble it was because they felt they had a genuine grievance and I guessed their grievance at bottom was the fact that they had no chance either through their

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representatives or as individuals to "talk things over." They had all their lives been accustomed to that. It was a precious right as well as one of their chief pleasures - this sitting down with the boss and "thrashing it out." In our industry there was no provision for "talking it over" direct or indirect. It both humiliated and irritated the men and it made labor militant, suspicious.

"I was shocked, outraged, when I found evidence that flimsy pretexts were used for getting rid of workers when the real reason was that they were union men. I told the Board that I considered this the denial of a man's constitutional right of association. At first there seems to have been some inclination in the General Electric Board to regard this as dangerous anarchistic sentiment but no intelligent man could long talk with Owen Young without recognizing how far away he is from anarchy. To his mind the denial of this primary right was much nearer anarchy.

He decided then that they must do something about all these matters which the letters to the Works News showed the men to be troubling about. What were other employers doing? He sought those who were attempting in one way or another to improve industrial relations; he talked with labor leaders; listened to the suggestions of friends like Lincoln Steffins.

They did do something about it. First they settled the strike and the spirit in which it was settled is shown by the fact that the company did not exact from the strikers the penalty for breaking their continuity of service, namely, the forfeiture of

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their seniority rights and their accumulations towards old age pensions.

"We considered that question," said Mr. Young, "and the thought that came to some of us was that just as it was sometimes necessary for us as a corporation to employ economic force, so these men of ours had but one economic weapon - the strike. We had not denied their right to strike. We had tacitly admitted it. What right had we to take away a right we had granted, because these men exercised a right we had not denied?"

Here then in the winter of 1918 - 1919, so disturbed for American industry, Owen Young began to ponder the relations of men and management; to work out with his associates a program which from that time to this has been a living growth.

The re-adjustment of labor relations on a more rational and human basis was not the only perplexing problem that the Armistice put up to industrial leaders. For two years they had been operating on the Government's plan, practically a five-year plan, since the end of the war was not to be prophesied, since they must be ready for the worst which might be years more of the frightful thing.

Then suddenly the war ends and industry is demobilized over night, told to go back to the old self-directing conditions, unscramble the omelet. It meant a grist of new problems. One of

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far-reaching importance came to Owen Young early in 1919. It concerned that Alexanderson alternator, which nearly four years before Marconi had wanted to buy from the General Electric.

The Alexanderson alternator had proved all and more than it had promised. Thanks largely to it the ocean had been spanned by the Navy's magnificent handling of the multitude of American inventions and devices which poured constantly from the big and little laboratories of the country. Secretary Daniels was not exaggerating the accomplishment when he wrote in his reminiscences of the "Navy at War":

"If the Germans had cut every cable, and their U-boats did cut some of them, we would still have been able to keep in touch with Pershing and the Army in France, with Sims in London, Rodman and Strauss in the North Sea, Wilson at Brest, Niblack at Gibraltar, Dunn in the Azores, with all our forces and Allies.

"President Wilson and Secretary Baker in Washington were, so far as time was concerned, in closer touch with Pershing and his forces than President Lincoln and Secretary of war Stanton were with the battle-fields a few miles away in Virginia, during the Civil War. It was infinitely easier for me to send a message or hear from our vessels three thousand or four thousand miles distant than it was for Gideon Welles, when he was Secretary of the Navy, to communicate with the Federal ships at Charleston or with Farragut at Mobile."

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As we have seen, nobody realized so well as Marconi himself the value in international air communication of the Alexanderson alternator. He had wanted to buy it outright before we went into the war, but negotiations had been halted by the conflict. The war over he came back - his representatives looking up Mr. Young at the office of the General Electric. They would like to buy outright the Alexander alternator.

"That," they were told, "was impossible." The General Electric would never sell control of an invention which might be of service to its own government in times of need. But as the war was over and its business was making and selling machines to any customer who could pay for them it would sell them any number of Alexanderson alternators they needed. The contract amounting to some millions of dollars was under way, when suddenly on April 5, 1919 - the date in the history of the radio which takes about the same place as the Fourth of July in the history of the country - two American Naval officers appeared on the scene, Admiral Bullard, who had just come back from Paris to take the direction of the communications of the Navy and Commander Hooper who all through the war had been at the head of the Navy's radio division.

They came, they said, at the command of the President of the United States, still in Paris at the Peace Conference, to ask that no contract be made with the British Marconi Company. Did the officers of the General Electric realize that putting their great

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invention into the hands of a British agency meant giving to the British Empire the control of the radio communications of the world, as it already had of the cable communications, that it meant leaving the United States without control of any international means of communication?

So eloquent and so convincting were the two visitors that the General Electric Board threw up its hands.

"Of course," they said, "we are unwilling to do anything that would at any time in the future embarrass the activities of our own Government. But what can we do? We are a manufacturing concern. The fact that we have developed in our normal research work inventions which are essential to the efficient operation of international communication through the air, does not change our position. We invent, make and sell machines. What would you have us do?"

Various solutions of the problem were suggested. Government ownership of the radio was one. Secretary Daniels would naturally have liked to keep intact the system as it had been developed, buying outright patents and plants and continuing government operations, but there was not a shadow of a chance that the Government would go into the business.

If that was out of the question, would the Government join a commercial company, taking over for its purposes all patents while the concern used them for commerce only? A contract

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of which Franklin Roosevelt, then Assistant Secretary of the Navy, approved, in the absence of Secretary Daniels in Paris, was worked out. It provided that all patents, patent rights and stocks should be held and used only for the benefit of Americans. But there were apparently too many pitfalls and delays in attempting such a partnership.

It soon became apparent that an all-American company organized and operated as a private business was the only way to meet the insistant demand of the Navy officials interested in preserving the system of communications they had set up in the war. But how could a private company be formed which would insure the complete control of all American radio property and inventions present and future? Ownership of property and inventions were widely scattered. To be sure the Navy had gathered them into one whole to meet the needs of war - but the war over sending and receiving stations and their operating crews, patents and licenses must be returned to their owners. Could these owners who included English and French, as well as Americans, be persuaded to pool them?

That was the pretty problem put up to the General Electric Board in the spring of 1919 by officers of the United States Navy on the order, so they claimed, of the President of the United States.

What could be done about the biggest factor in his problem - the American branch of the British Marconi Company? Before the war it had been far and away the greatest radio enterprise in this country. It had thousands of American stockholders,

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tangible property valued at Ten Million Dollars - patents, organization, the prestige of the name Marconi. Would the British parent consent to give up its daughter? It didn't seem likely.

And how about the American radio patents? They had been developed in the laboratories of various great businesses to meet special needs - the American Telephone and Telegraph Company, the Western Electric Company, the United Fruit Company, the Westinghouse Electric and Manufacturing Company, all had been as busy as the General Electric for years inventing, patenting and frequently suing one and another for infringements. It was clear that no radio system comparable in its efficiency to that the Navy had developed could be installed by any company without infringing on the rights of other companies!

The cleaning up was begun under Mr. Young's direction with the British Marconi Company. Would they sell its American branch? It balked, but when it discovered that it would be left undisturbed in its control of the wireless of the British Empire, that it could, if it would sell, obtain for itself for twenty-five years the use, not only of the Alexanderson alternator, but of all inventions and developments of the new American Company, its own being of course open to its partner, the sale was made.

That complication out of the way, came the approach to the American interests.

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One thing this country did get out of the Great War was an acquaintanceship of business men with one another through the co-operative work they did in Washington - on the Council of National Defense, - on Boards and Commissions-which has done much to remove old suspicions, break down old unfriendly barriers. It was much easier to suggest co-operation to men in 1919 than it had been before the war. They had seen it work.

Moreover, the new company was to guard the essential interests of each, to open to each the inventions of all, to cross-license - mobilize for all the entire body of scattered inventions, no one of which could independently work to full advantage, if indeed it could operate at all without others - and to do this for a limited period, twenty years.

But what would be the reaction of the government to such a combination? Mr. Young took no step without counselling with every department concerned - with the Department of Commerce, - the State Department, - the Attorney General's office. As for the Navy Department, Admiral Bullard never ceased his pushing of the project; that is, the Navy Department was actively behind the amalgamation.

Intricate as it was, - delicate as it was, - dangerous as it looked, - the deals were rapidly made and on December 1, 1919, the new company began business. With incredible rapidity international communication began; first with Great Britain, then Norway, -

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then Germany, then France, then Hawaii and Japan.

It was not long after this that Mr. Young was able to tell a Government committee, curious as to what had happened, that America was already able to lay down in twenty different countries any message she cared to put on a radio. Moreover, that every country in Europe seeking to build a radio station asked first, "Will this station communicate with the United States?" And the answer must be, "Yes," or the station would not be built.

America had become the radio center of the world!

Great as was its gain for the nation, the chief beneficiary of the consolidation was the art itself. Instead of being held back by years of bickering over patents, interminable legal squabbles, as has happened again and again in the development of almost every one of our discoveries and inventions from barbed wire to electric currents, the great existing laboratories of the world could pool their interests, each feeling that it was getting not only the use of what it had discovered, but the use of what everybody else had discovered.

It is probable that no one in 1919, when the Radio Corporation was launched, understood better than Mr. Young did the coming difficulties of the new aggregation. He realized, if few law givers did at that date, how little after all was known about the ether with which men were dealing - the limitations

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which natural laws put on its use, the changes which more knowledge and new inventions would force.

While from the first he had sought federal co-operation he had feared federal regulation. "The art is so new and the development so uncertain that the control of that development should be for the time being in the hands of those responsible for the investment," he declared. "We know from our own organization that each man is certain that his own particular notion is the one and only one on which progress can be made."

It was a case of Doctors disagreeing. How can you make laws for things which are still only half worked out, which change over night? Experimentation with law was however necessary to educate the public, quite as necessary as laboratory research, engineer's experiments to develop the art, and it was not until the radio commission was appointed that the public rested at all easy, though it is not of course too easy today in the matter of radio.

Not less bold than the organization of the Radio Corporation was the piece of International Radio amalgamation which followed it.

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Four nations, by the summer of 1921, were struggling in the Argentine, Brazil, Chile, for exclusive control of the air. These nations were the United States, Germany, France, Great Britain. To Mr. Young, convinced that a radio war in South America would be disastrous for everybody, a foolish waste of money and wave lengths, as well as another sure war breeder, such a contest was not to be permitted. Various representatives of the new American Radio Corporation attempted negotiation, but with no success. Mr. Young decided to see what he could do.

Hurrying to Paris he invited to meet him there representatives of the foreign companies which were fighting for the control of South American radio rights. The French were on the field; the English came without hesitation; but would German business men come to Paris; would the French Government permit them to come? Mr. Young asked ~~xxxxxxxx~~ permission to invite them. When finally in October of 1921 he had the full representation he needed, he found the French and Germans would not speak to one another!

But he worked it out, brought them to their senses or at least to an agreement to divide the field in South America, each getting his quarter of the loaf.

When the agreement had been concluded, Mr. Young said, "And now I want to tell you about the Monroe Doctrine." And he proceeded to explain to the surprised delegates that while the

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of which Franklin Roosevelt, then Assistant Secretary of the Navy, approved, in the absence of Secretary Daniels in Paris, was worked out. It provided that all patents, patent rights and stocks should be held and used only for the benefit of Americans. But there were apparently too many pitfalls and delays in attempting such a partnership.

It soon became apparent that an all-American company organized and operated as a private business was the only way to meet the insistant demand of ~~President Wilson~~ the navy officials interested in preserving the secrecy of communications and ~~Commander Bullard.~~ But how could a private company be formed which would insure the complete control of all American radio property and inventions present and future? Ownership of property and inventions were widely scattered. To be sure the Navy had gathered them into one whole to meet the needs of war - but the war over sending and receiving stations and their operating crews, patents and licenses must be returned to their owners. Could these owners who included English and French, as well as Americans, be persuaded to pool them?

That was the pretty problem put up to ~~Owen D. Young~~ the G.E. Board in the Spring of 1919 by officials of the United States Navy on the order of the President of the United States.

What could be done about the biggest factor in his problem - the American branch of the British Marconi Company? Before the war it had been far and away the greatest radio enterprise in this country. It had thousands of American stockholders -

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tangible property valued at Ten Million Dollars - patents, organization, the prestige of the name, Marconi. Would the British parent consent to give up its daughter? It didn't seem likely.

And how about the American radio patents? They had been developed in the laboratories of various great businesses to meet special needs - the American Telephone & Telegraph Company, the Western Electric Company, the United Fruit Company, the Westinghouse Electric and Manufacturing Company, all had been as busy as the General Electric for years inventing, patenting and frequently suing one and another for infringements. It was clear that no radio system comparable in its efficiency to that the Navy had developed could be installed by any company without infringing on the rights of other companies.

Mr. Young began the cleaning up with the British Marconi Company. Would they sell its American branch? It balked, but when it discovered that it would be left undisturbed in its control of the wireless of the British Empire, that it could, if it would sell, obtain for itself for twenty-five years the use, not only of the Alexanderson alternator, but of all inventions and developments of the new American Company, its own being of course open to its partner, the sale was made.

That complication out of the way, came the approach to the American interests.

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One thing this country did get out of the Great War was an acquaintanceship of business men with one another through the co-operative work they did in Washington -- on the Council of National Defense, on Boards and Commissions, which has done much to remove old suspicions, break down old unfriendly barriers. It was much easier to suggest co-operation to men in 1919 than it had been before the war. They had seen it work.

Moreover, the new company was to guard the essential interests of each - to open to each the inventions of all - to cross-license - mobilize for all the entire body of scattered inventions - no one of which could independently work to full advantage, if indeed it could operate at all without others, and to do this for a limited period - twenty years.

But what would be the reaction of the Government to such a combination? Mr. Young took no step without counselling with every department concerned - with the Department of Commerce, the State Department, the Attorney General's office. As for the Navy Department, Admiral Bullard never ceased his pushing of the project; that is the Navy Department was actively behind the amalgamation.

Intricate as it was, delicate as it was, dangerous as it looked, the deals were rapidly made and on December 1, 1919, the new company began business. With incredible rapidity international communication began, first Great Britain, then Norway,

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then Germany, then France, then Hawaii and Japan.

It was not long after this that Mr. Young was able to tell a Government committee, curious as to what had happened, that America was already able to lay down in twenty different countries any message she cared to put on a radio. Moreover, that every country in Europe seeking to build a radio station asked first, "Will this station communicate with the United States?" And the answer must be, "Yes," or the station would not be built.

America had become the radio center of the world!

Great as was its gain for the nation, the chief beneficiary of the consolidation was the art itself. Instead of being held back by years of bickering over patents, interminable legal squabbles, as has happened again and again in the development of almost every one of our discoveries and inventions from barbed wire to electric currents, the great existing laboratories of the world could pool their interests, each feeling that it was getting not only the use of what it had discovered, but the use of what everybody else had discovered.

It is probable that no one in 1919, when the Radio Corporation was launched, understood better than Mr. Young did the coming difficulties of the new aggregation. ~~The popular notion of certain law givers was that a statute must be enacted declaring, as one of them suggested, that the ether is the "inalienable~~

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possession of the people." They had not yet learned that natural laws put limitations on the use of the ether - that the number of wave lengths are limited, that is they had not realized that their statutes must be shaped according to natural laws.

Mr. Young who from the first had sought Federal co-operation feared Federal regulation. "The art is so new and the development so uncertain that the control of that development should be for the time being in the hands of those responsible for the investment," he declared. "We know from our own organization that each man is certain that his own particular notion is the one and only one on which progress can be made."

It was a case of Doctors disagreeing. How can you make laws for things which are still only half worked out, which change over night? Experimentation with law was however necessary to educate the public, quite as necessary as laboratory research, engineer's experiments to develop the art, and it was not until the radio commission was appointed that the public rested at all easy, though it is not of course too easy today in the matter of radio.

Not less bold than the organization of the Radio Corporation was the piece of International Radio amalgamation which followed it.

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Four nations, by the summer of 1921, were struggling in the Argentine, Brazil, Chile, for exclusive control of the air. These nations were the United States, Germany, France, Great Britain. To Mr. Young, convinced that a radio war in south America would be disastrous for everybody, a foolish waste of money and wave lengths, as well as another sure war breeder, such a contest was not to be permitted. Various representives of the new American Radio Corporation attempted negotiation, but with no success. Mr. Young decided to see what he could do.

Hurrying to Paris he invited to meet him there representatives of the foreign companies which were fighting for the control of South American radio rights. The French were on the field; the English came without hesitation; but would German business men come to Paris; would the French Government permit them to come? Mr. Young asked ~~and got~~ permission to invite them. When finally in October of 1921 he had the full representation he needed, he found the French and Germans would not speak to one another.

But he worked it out, brought them to their senses or at least to an agreement to divide the field in South America, each getting his quarter of the loaf.

When the agreement had been concluded, Mr. Young said, "And now I want to tell you about the Monroe Doctrine." And he proceeded to explain to the surprised delegates that while the

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United States was willing to be one of four in the company she expected and would insist on naming an American as Chairman - an impartial Chairman, who would sit with the Governing Board, made up of two representatives from each country to protect them from one another

It was not easy for them to swallow the Monroe Doctrine in the radio business, but they finally, under Mr. Young's persuasive and final putting, consented, and ~~an~~ as American Chairman was chosen by Mr. Young, his friend, Thomas Nelson Perkins, the Boston lawyer who seven years before had tried to persuade him to leave the General Electric and join him in the practice of law. That was ten years ago and I believe that it is generally agreed by those who know the workings of the ~~Commercial~~ Radio Consortium ~~International Company of~~ South America, that they could not get along without Mr. Perkins; that under his wise direction they have been protected from one another.

Thoughtful men were not slow to see the meaning of Owen Young's work in Paris. He had held the first international business conference since the Armistice - held it in Paris with Germans present and come out triumphant. Harassed as the world was by the apparent inability of men of like interests but of different nationalities agreeing on anything, here was a ~~this~~ demonstration of what could be done by the exercise of intelligence, determination,

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patience; It gave heart to those who on the inside were watching the world' unholy struggle. So men could be gotten together then, could be brought to friendly agreements. It was something to know. Moreover, here was a negotiator who should be used.

The Chamber of Commerce of the United States was at that moment busily working with commercial bodies in other countries, organizing an International Chamber of Commerce. Its first meeting was held in 1919. At its third meeting in Paris two years after Young had perfected the alliance in ~~North~~ South American radio interests, long enough after to at least judge partially ~~at least~~ as to the effectiveness of the machinery for co-operation set in motion, Mr. Young was made Chairman of a committee on International Arbitration. His talk made at the first meeting of this committee so impressed his hearers that it was sent out to all the members of the International ~~Chambers~~ body. His counsels had what is so essential in talking to men of affairs - the backing of practical experience, for the South American Radio ~~Corporation~~ Conservatory had been settling its differences for nearly two years now by the methods and in the spirit of arbitration which he was advising for the business of the world.

Here are some of the things he told the gentlemen that met in Paris on October 15, 1921 to consider how they might aid the growing international business to carry on in peace and justice:-

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"A practical solution of the complex problem before us is most likely to be reached, if we make no attempt to settle everything in advance, but concentrate our efforts rather upon getting a movement started, even on a modest scale, and leaving further developments to follow, in due course, and as a result of successive demonstrations that the International Chamber is in a position to furnish prompt and economical settlement of certain types of business disputes. In this way, the machinery of the Chamber can itself develop, step by step, to meet the demands upon it, and the appeals for co-operation, which the Chamber must constantly make upon business houses and business organizations, can be based upon results actually obtained rather than upon theoretical reasoning."

How wise the following:-

"Let me state my conviction that the real function and opportunity for usefulness of the Chamber in this whole field is not to interest itself primarily in the punishment of the relatively few dishonest and tricky business men with whom the Chamber is likely to come into business relation, but rather to provide for the honest and well-intentioned men, who form the vast majority, a prompt and effective means of clearing up difficulties which interfere with the satisfactory conduct of their affairs."

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One of the reasons for urging the International Chamber of Commerce to push everywhere provisions for settling trade disputes was this:-

"The possibility for friendly settlement <u>without</u> arbitration depends on the existence and knowledge of facilities <u>for</u> arbitration."

He knew well enough that his neighbors in Van Hornesville much preferred to settle their own quarrels - that they resented nothing more quickly than the suggestion that they leave the settlement to somebody else. He had watched the effect in the trade ~~the war~~, on many employees and their workers of submitting disputes to the War Labor Board. They yielded, but they felt more or less aggrieved, that they could not fight it out in the good old American way.

This conviction of his that "the possibility for friendly settlement <u>without</u> arbitration depended on the existence and knowledge of facilities <u>for</u> arbitration" had been a factor in certain work he had done in Washington in the preceding two years, dovetailing it with the organization of the Radio Corporation, the setting up of the North and South American Radio agreements and the demands the International Chamber of Commerce was making on him for help in its start-off. This work had been done in connection with the first and second Industrial Conferences called in the Fall ~~and~~ of 1919 by President Wilson.

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