ORDER OUT OF CHAOS

THE FORMATIVE YEARS OF AMERICAN BROADCASTING, 1920-1927

> Thesis for the Degree of Ph. D. MICHIGAN STATE UNIVERSITY Lewis Elton Weeks 1962



This is to certify that the

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presented by

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ABSTRACT

ORDER OUT OF CHAOS: THE FORMATIVE YEARS OF AMERICAN BROADCASTING, 1920-1927

by Lewis Elton Weeks

The formative years of American broadcasting were 1920 to 1927. Events which occurred in those years from the lifting of the ban imposed on radio during World War I until the Radio Act was passed in 1927 set the pattern for American broadcasting for the future.

The outstanding year of the period was 1924. This was the year coast-to-coast radio broadcasting was proved practicable. This was the year the political conventions and the campaign speeches of the Presidential candidates were broadcast over an interconnection of stations by use of long distance telephone wires and by new short wave techniques.

Multi-station hookups led to the development of national broadcasting companies which shortly afterward began to broadcast radio programs sponsored by national advertisers.

The network broadcasting of 1924 was one of several factors which helped shape a radio system peculiar to the United States in the manner it was financed and regulated.

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Before 1924, most radio stations had been subsidized by radio manufacturers, newspapers, churches, schools, and other interested parties. Soon this became too expensive for most station owners.

Equipment needed to be replaced frequently for improved, more efficient, and more expensive apparatus. Programming became more sophisticated and expensive. Performers wanted to be paid for appearances on radio; and ASCAP demanded royalties for the use of its music by radio stations.

Some means had to be found to pay the cost of radio. Advertising seemed the only practicable means. AT&T established station WEAF, in New York in 1922, to experiment with toll broadcasting. The station slowly built up a clientele of local advertisers. It was the use of radio during the campaign of 1924, however, which pointed the way to national radio supported by advertisers.

At the beginning of the decade there had been cooperation in the radio industry. There was cooperation between patent owners who entered cross-licensing agreements with other patentees. There was cooperation between station owners in sharing air time and radio frequencies with each other.

As the possibilities of radio became more apparent after 1924, the radio and telephone groups found it more difficult to cooperate, and radio stations also began to lose the spirit of sharing.

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LEWIS ELTON WEEKS

Climaxes came in 1926-1927. The radio and telephone groups could not reach agreement, so AT&T sold its radio properties to RCA. The next step was the formation of the National Broadcasting Company--the pattern of national networks was set. A Zenith Corporation radio station refused to abide by a time and frequency schedule assigned to it. A resulting court case upset all voluntary regulation in the industry. A new radio law was needed. The Radio Act of 1927 was passed and set the basic pattern establishing ownership of the air waves by the people, and regulation of broadcast licenses by a government commission.

Out of the Twenties came American broadcasting as it is today, and is likely to remain in the future: in general, privately-owned broadcasting stations, supported by advertising, licensed and regulated by a government commission whose duty it is to make certain the licensees operate their stations in the public interest.

The proving ground, so to speak, was the multi-station broadcasts made during the political campaign of 1924.

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ORDER OUT OF CHAOS: THE FORMATIVE YEARS OF AMERICAN BROADCASTING, 1920-1927

bу

Lewis Elton Weeks

A THESIS

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

College of Communication Arts

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LEWIS ELTON WEEKS

DEDICATION

To my wife, Frances, for her loving forbearance throughout a long program.

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CHAPTER I

INTRODUCTION

American broadcasting, as we know it in the 1960's, was shaped, molded, and patterned by forces which acted upon the infant radio industry in the years 1920-1927.

The two dates have been chosen as terminals because 1920 marked the beginning of modern broadcasting to American homes, and 1927 was the date of the passage of the Radio Act which established the first effective government body of control over our broadcasting, the Federal Radio Commission.

During the seven years or more between the release of amateur and private stations from a government wartime ban and the establishment of the FRC, radio developed in the pattern it was to follow to the present day. Broadcasting to the public, by radio or television, is mainly by privatelyowned stations operating under licenses granted by the United States government. These stations are supported in most cases by advertising sponsors who buy time on the air and pay for programs to be broadcast for the entertainment, information, or education of the audience.

Broadcasting in its present form came about as the result of various economic, sociological, and technological

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influences which shaped this amorphous thing called radio into a cultural force as dynamic as the automobile or the emancipated woman.

To borrow a term from Joseph T. Klapper, the formative causes were phenomenistic--not one cause but several which took part in fitting broadcasting into our way of living.

As will be shown later, radio began as a method of communication by Morse code wireless telegraph. Then, early in this century, Fessenden and deForest developed apparatus for voice transmission by wireless, or radio telephony, as it was sometimes called. This new voice radio, when considered as a commercial possibility, was thought of as an extension of wire telephony. It was hoped that someday it could be used as a device to bridge distances beyond the reach of wires.

World War I gave impetus to radio experimentation. Westinghouse, General Electric, Western Electric, and other companies developed apparatus for sending and receiving radio messages for war use. These companies continued in their radio experimentation after the war ended.

Besides the companies mentioned above, who were first interested in radio as a means of commercial communication, there were thousands of amateurs or "hams" who were fascinated with the electro-magnetic wonder of radio. The amateurs bought equipment and built and improved radio receivers in enthusiastic effort to get "DX," as they called signals from

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distant points. Their purchases stimulated the business of electrical manufacturers to the point where they decided to build ready- made receivers for sale.

Westinghouse and a few other companies set up transmitting stations in 1920. The Westinghouse station was for experimental purposes at first. Other stations were built because of interest in the art, or for the publicity the station might give. The amateurs who had been talking back and forth with their fellow radio fans now began to enjoy the music broadcast by the early experimental stations.

It was not long before the electrical manufacturers found they could afford to set up stations to broadcast phonograph records and local musical talent because it encouraged the sale of their radio receiver equipment.

Radio did not remain a novelty long. Within a few years it became an industry employing hundreds of thousands of workers, and grossing millions of dollars. No longer could station owners indulgently afford to write off the operating expense--it became too costly. Radio broadcasting was too expensive a hobby for any but the very wealthy.

The elements which shaped radio in the Twenties were numerous. The rising cost of radio equipment, the need to pay fees for artists to appear on radio, the public's desire for more elaborate and costly programming, the cross-licensing of patents on radio devices, the demand for royalties on copyrighted music, the linking of stations in multiple

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hookups, the proving of the practicability of coast-to-coast broadcasting in the political campaign of 1924, the dependence on advertising revenue for the support of broadcasting, the regulation of the industry under the Radio Act of 1927-all these elements shaped broadcasting into a mold which remains substantially the same today.

The first transmitting stations of the early Twenties were relatively low-powered and inexpensive to build. Changes in equipment came rapidly: more powerful and more efficient apparatus was perfected each year. Some stations replaced transmitters for better ones two or three times in the first five years of station operation. Where the first installation had cost a few hundred dollars, the later ones ran into several thousand. As the transmitter costs rose so did everything else connected with broadcasting.

Crude one-room studios gave way to elaborate ones. Staffs of stations began to specialize. The versatile person who formerly would announce, sing, play the piano, and double on almost any job in the place could no longer fulfill all the needs he had in the past. Now there was a station manager, a program director, an engineer, a sounds effect man, and many others as time went on. Some stations added a dance band, a string quartet, or a junior-sized symphony to the swelling payroll.

At first there had been little trouble lining up talent to appear on radio. Anyone who could sing, play a musical

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instrument, do elocution, read inspirational poetry, or tell funny stories could appear on radio--and wanted to. Some professional talent tried the new medium to see what it was like. Famous people appeared for interviews, church services were broadcast, and sporting events helped fill the radio log also. But in time, program directors found it difficult to secure free performers who could satisfy audiences becoming increasingly selective. The people they wanted to hear cost money.

Another item which increased expenses was broadcasting from points remote from the transmitter. To set up the microphone for this type of broadcast entailed wire connections, more elaborate preparations, more time consumed by technicians, and more employees. These more elaborate and novel programs were undertaken by program directors to satisfy the public listening in.

Patents on radio devices were in such an intertwining maze of ownership that cross-licensing was the only way radio equipment could be produced without danger of an infringement suit.

During World War I the United States government arranged a patent truce in order that needed radio equipment could be manufactured for the military without this danger of infringement litigation. After the war and before the lifting of the government ban on private radio stations, the Radio Corporation of America (RCA) was formed with the blessing of the federal government. The large manufacturers

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Another economic pressure was made on radio even before commercial broadcasting had proved profitable. In the early Twenties, the American Society of Composers, Authors and Publishers (ASCAP) for the playing over radio of any of the copyrighted music in their repertoire demanded substantial royalties. This was a motivating factor for the founding of the National Association of Broadcasters (NAB): to oppose this demand. From that day to the present ASCAP and NAB have been struggling--one for more fees, the other to pay less. The fees involved rose from a few thousand dollars a year in the early Twenties to a multi-million dollar total today.

Technologically the broadcasting industry has shown tremendous advances--much of this came in the Twenties. One of the greatest was the ability of radio engineers to devise methods to broadcast over greater areas by means of stronger individual stations and by means of interconnection of stations coast-to-coast by wire and by short wave.

The political campaign of 1924 was the proving ground of interconnection. Little had been done before 1924 in linking stations together for a simultaneous broadcast except

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NAL EXCLUDED NALES DEL DE on a limited regional scale. The telephone company spent large sums perfecting a system which used long distance telephone circuits with necessary boosters and amplifiers along the way. It was neither as simple as the words make it sound, nor as inexpensive as regular telephone connections between the same points. Several circuits had to be used for one interconnection to assure uninterrupted service, for the technicians to communicate on the quality of the transmission, and for alternate routings.

The campaign of 1924 proved the practicability of wire connections in broadcasting speeches over large areas, and in some cases, over the whole nation. This demonstration of coast-to-coast broadcasting was watched by business. It was not long before large-budget advertisers turned to radio as a medium to reach millions of listeners at relatively low cost.

In the meantime radio station WEAF, New York, the AT&T experiment in toll broadcasting, demonstrated that radio could be made to pay even on a local and regional scale. WEAF also branched out in network broadcasting. Other stations licensed by AT&T received some revenues in their operations. Some of them linked up in the Red Network in 1925. This was the beginning of the profit making days of radio, but the great days began with the formation of the National Broadcasting Co. and Columbia Broadcasting Co. in the last half of the decade.

Stert Ecover a stary years a man thing at -maint, croe a listent the g linne stations irring any vest ani that these Merest, for pu itticz of speed: The Radio : alt found in th Relatory body (antin, mósc Mine Connies 2 1 c ser companies i Mainz. Cinera e sur Boyter. Nese eleme: New York O Another important factor in molding American broadcasting into its present pattern was the Radio Act of 1927. Herbert Hoover said, in 1961, he was convinced now as he was so many years ago when the act was passed that the most important thing accomplished by the act was that it established the fact, once and for all, that the public owned the airways.¹ This meant the government, in the name of the people, could license stations and assign radio frequencies without conferring any vested interest. This meant the people could demand that broadcasting stations be operated in the public interest, for public necessity and convenience. Furthermore, the granting of broadcasting licenses to private citizens without the right of censorship by the government guaranteed freedom of speech.

The Radio Act of 1927 set the basic principles still to be found in the present Communications Act of 1934. The regulatory body under the first act was the Federal Radio Commission, under the present it is the Federal Communications Commission. The new act was expanded to include the common carriers of communications--the telephone and telegraph companies in interstate commerce--with the broadcasting industry. Otherwise the new act is much like the old in aims and philosophy.

These elements which have been described were all important in the development of our present system of

¹Herbert C. Hoover, in personal interview with the writer, New York City, November 3, 1961.

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broadcasting. This electro-magnetic marvel has influenced our culture greatly. Our ways of thinking, of talking, of setting values, of determining behavior patterns have been affected by radio and television. They entertain, and teach, and inform, not always overtly, but certainly at least indirectly. Whether the general effect is wholesome or insidious is a matter of opinion.

Mass effect has been made possible by the ability to broadcast radio and television coast-to-coast over stations linked in great networks. Advertising has made this possible by paying the way. The political campaign of 1924 pointed the way by showing that interconnection could be made to work. Few people realize what the campaign did for radio. The question is sometimes asked: What effect did radio have on the results of the election? Probably very little. President Collidge was never seriously challenged by either of the other major contenders. What might be said about radio and the election is that the election had a tonic effect on radio. The excitement of hearing the conventions and speeches of the prominent political leaders broadcast must have sold thousands of radio sets. The thought of being one of an audience of twenty million people spread over the whole of the country, coast-to-coast, must have thrilled more than one listener.

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CHAPTER II

OTHER BROADCASTING SYSTEMS

American broadcasting went through the early Twenties being shaped and molded by economic forces, by advances in technology, and by the pressures of public likes and dislikes in programs. The Radio Act of 1927 was the finishing touch in the patterning because it was a cogent statement of the relationship between the radio industry and the federal government.

The American system of broadcasting is one of free enterprise, operating stations under limited license from the government for the entertainment, education, and information of the public. Financing, except in respect to the relatively small number of educational and institutional stations, is made possible through the selling of time to advertising sponsors. Broadcasting is not only done on a local level but also on regional and national levels through networks of stations operating on a contractual basis. Station ownership is limited to prevent monopoly.

Programming to a large extent is directed to capture the fancy of the largest possible audience, a fact which is gratifying to the advertisers who pay for most of the

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broadcasting. Therefore, the trend has been toward light entertainment rather than the informational, to jazz more than to serious music, to action more than to thought, and to fantasy more than to reality.

If this is American broadcasting, what about that in other parts of the world? Concurrently in the Twenties, it was developing in Britain, Canada, in the principal countries of western Europe, and in a few other spots in the world. No one of these others was the same as the American. Each was adapted to the political system or needs of its country.

Some systems of broadcasting developed as totally owned and controlled agents of the government. Others were managed by public corporations which existed at the pleasure of the government. Some were commercial corporations with the government in partnership, while still others allowed government and private corporations to exist side by side.

In all the systems there was an element of control whether it was by a government agency licensing and regulating stations or whether there was partial or total Participation of the government in management.

It may help to look at the British and Canadian systems with the idea of comparing them to ours. The British was chosen because it serves a country with the highest saturation of radio and television receivers next to ours. The Canadian system is interesting because it has elements similar to both the American and British plans.
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British radio is completely operated by a public corporation, the British Broadcasting Corporation. Television there is in two divisions, one operated by the BBC, the other by a different public corporation, the Independent Television Authority, which leases the air time on its stations to program contractors. The contractors, in turn, produce programs and sell advertising to finance their operation and to show their stockholders a profit.

On the face of it, BBC is different from the American operation. Although ITA operates stations which feature advertising, it too is quite different from the American method.

Britain was faced with the same problem as America after World War I in respect to radio. There was a high interest in building radio transmitters and receivers. Everyone seemed to want to get on the air. The confusion on the air was probably greater than in America, for in Britain there was a more dense population and fewer radio frequencies free from interference. Besides local stations there were many European stations reaching out to the United Kingdom.

Two committees were appointed by Parliament to investigate the possible need of regulation for radio. As a result of the probes it was decided to charter one corporation to take over radio broadcasting.

The Post Office department, which in Britain supervises the postal system, telephones, and telegraph was also assigned

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radio. The Postmaster General was faced with the task of choosing from among twenty-four applicants for the right to organize a monopoly broadcasting corporation. In the end, he did the obvious. He set up a corporation in which all could participate.

The British Broadcasting <u>Company</u> was formed in 1922 with six major radio equipment manufacturers subscribing \not 10,000 each to the capital stock and with \not 40,000 additional in stock being made available at \not 1 per share to other investors connected with the industry.¹ Eventually, there were 1,700 shareholders in the company. The capital subscribed was believed enough to build eight transmitting stations which would supply the whole of the United Kingdom with radio service.

The company's operation was financed by a license fee on each radio receiving set in the country and by royalties collected from British manufacturers of radio sets and parts. The sale of foreign radios and parts was restricted to protect the business of the domestic companies. It was expected the fees and royalties would more than pay for the broadcasting, and a profit would result. As a control on possible profits, the company was limited to dividends of a maximum seven and one-half per cent.

The annual licensing fee on receivers was not prohibitive; it was only ten shillings (about \$1.40 in our currency

¹This should not be confused with the British Broadcasting Corporation which succeeded it in 1927.

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Radio grew in scope and service but the British Broadcasting Company had severe critics. The smaller manufacturers claimed the six largest shareholders dominated the company and its policies. Furthermore, the paying of royalties on British equipment in return for protecting the British businessmen from foreign competition did not seem a practicable method of financing the broadcasting. (This situation was, in a small way, parallel to the early days of American broadcasting when it was partially subsidized by radio manufacturers in order to stimulate the sale of their products.)

Parliament heard the complaints and appointed the Sykes Committee and the Crawford Committee to study the situation. Because of the tenor of the reports, which were made in the early Twenties, it was decided to revamp the organization of the broadcasting corporation.

A new public corporation was "chartered and licenced" and was to take over the assets and business of the old company. The license granted a monopoly of broadcasting for ten years (1927-1936). This was the British Broadcasting <u>Corpor-</u> ation (BBC) which has operated continuously since that time.

The new BBC was a monopolistic public corporation which many have compared to our own Tennessee Valley Authority. It

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had a board of nine governors serving five year terms with one member especially selected for each of Scotland, Wales, and North Ireland. John Reith, an excellent administrator, came from the old company to be the Director-General, the executive head of the corporation.

There was no provision for the balancing of party strength on the board such as there is in the Federal Communications Commission (FCC) in the United States, but provision was made for regional councils and advisory boards to assist the management.

The financing of broadcasting was by annual license fees on radio receiving sets much as with the old company, but no royalties were levied on sets and equipment.

The Postmaster General assigned the frequencies BBC was to use. He also was authorized to pay BBC eighty-five per cent of the license fees collected each year for three years, and thereafter the amount the Treasury authorized each year.

Some other areas of action were also clearly defined: no commercials, as we know them, were allowed; no aliens were to be hired without the written consent of the Ministry; and BBC employees were allowed to join labor unions.

In the matter of broadcasting, it was understood an impartial daily account of the activities of Parliament must be reported. Also, BBC must make facilities available for any announcements cabinet ministers might need to make.

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Furthermore, the government retained the right to stop or cancel a message or a program. To most Americans this would seem the rankest kind of censorship, but the British do not seem to be perturbed. They look at the spirit of the law rather than the letter, assuming a cancellation of a program will be requested only if the welfare of the nation is in question. The British people believe the power of public opinion will prevent abuse.¹

The BBC went into operation under this general framework and did quite well, but everyone was not satisfied with monopoly broadcasting. (This dissatisfaction culminated in the establishment of a second broadcasting corporation in 1955. This featured commercial television.)

Burton Paulu, author of one of the standard books on British broadcasting, said of the system:

. . . the principal argument in favor of monopoly has always been that it ensures a better-balanced program service and maintains higher standards than would a competitive system.²

Furthermore, some proponents of monopoly said they feared competition would act much in the same manner as Gresham's law of money--the bad would drive the good off the air.

But monopoly was called a threat to free speech. Sir Winston Churchill believes this, for he was denied the right

¹Burton Paulu, <u>British Broadcasting</u> (Minneapolis: University of Minnesota Press, 1956), p. 38.

²<u>Ibid.</u>, p. 17.

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to broadcast when he was out of power, but when he felt he had something important to say in time of crisis.¹

A monopoly gave the people little opportunity to choose for themselves, while under a competitive system the weight of public opinion could effectuate the satisfaction of public taste and desire. But radio grew rapidly in spite of the BBC monopoly.

The policy to be followed by BBC radio quickly took definite shape under Director-General Reith. He aimed at high level programming, probably at a quality rating above what the majority of the listeners desired. Furthermore, his Sunday policy was strict in that he felt programs on the Sabbath should be religiously oriented with due respect to keeping the adults in church in the morning and the children in Sunday School in the afternoon. The reaction to Reith's programming was to turn on Radio Luxemburg for light entertainment on Sunday and on weekday mornings before BBC went on the air.²

Radio Luxemburg is a high-powered station in the Duchy of Luxemburg which beams English language programs of jazz music, and American-type entertainment to the British Isles. British advertisers support the station in a very profitable operation; British listerners turn to Radio Lux when they can not get suitable programs at home.

¹Ibid., p. 45.

²Ibid., pp. 195-202, 360-361.

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The Light Programme is one of popular music and light entertainment characterized as "entertainment not envolving too much thought."¹ The Home Service Programme is popular entertainment of a wider range than the Light, while the Third is for those few who want artistic programs, classical music, and serious talks. Network Three uses the Third's frequency at some of the times it would not otherwise be in use for broadcasts to even a more highly specialized cultural group.

BBC worked hard to develop radio broadcasting, but also devoted much effort to establishing television. In fact, the British had an earlier start with the television than the Americans. Broadcasts of importance were made on TV from Alexandra Palace in London as early as August, 1936. Regular scheduled broadcasts began in November of that same year. The first really big event given good coverage by TV was the coronation of George VI in May, 1937.

¹Maurice Gorham, <u>Broadcasting and Television Since 1900</u> (London: Andrew Dakers, Ltd., 1952), p. 221.

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Pressure mounted, as time passed, for a wider range of programming which was thought would come with commercial TV. The political parties divided pretty much along party lines on the question of commercial television: the Conservatives were in favor of it, while the Labour party was opposed.

The Conservatives came to power in 1951. They were impressed with a committee report to Parliament of hearings held in 1949 and 1950 in which recommendations were made for commercial TV. Advertising interests in the House of Commons worked to pass a new television act which would permit commercial TV. This was done in spite of great opposition and the horrible example made of American commercial television.

An Independent Television Authority (ITA) was created by the Television Act of 1954. This was a public corporation, separate from BBC, which would own and operate TV transmitting stations in the United Kingdom. Although the ITA could present what we in America would call sustaining programs, in general the corporation would sell time to program contractors who would prepare and present programs. The

¹Paulu, <u>op. cit</u>., pp. 374-381.

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contractor, in turn, would make his profit by selling advertising time, similar to our spot announcements.

It was provided further that advertisers would have no control over programs and would not be identified with a particular program. ITA would retain right of supervision of programs. In a sense, buying ITA television advertising time was much like buying newspaper or magazine ads without guarantee of position.

The ITA was licensed for ten years. It was to be managed by a board of governors of seven to ten persons serving terms of not more than five years. Scotland, Wales, and North Ireland were to be specially represented on the board. No member of Farliament or of the BBC Board of Governors, or any person interested in an advertising agency could serve. The Postmaster General and his ministry were to be responsible to Parliament for ITA.

Under the Television Act, ITV programming must be British in proper proportion; program contractors must be British. Furthermore, programs and advertising must be separated, there can be no advertising incorporated in programs. Advertising can appear only at the beginning, at the end, or during a "natural break" in a program. No ads can appear on religious programs.

It was estimated ITA would have twenty-three stations operating by 1965 to serve eighty per cent of the population. This coverage was exceeded by 1960.

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This was the way commercial television came to Britian and broke the BBC monopoly. BBC rose to the occasion competitively by having Grace Archer, the heroine of the country's favorite soap opera die in a ten minute death scene just as Independent Television was trying to secure all possible viewers for its elaborate televised dinner at which the Lord Mayor and other notables inaugurated the new commercial TV.¹ It seemed that competition was really a shot in the arm to British TV.

This study of the development of the British system of broadcasting revealed certain contrasts with the American. There are contrasts not only in ownership, in programming, in financing, but also in the rate with which the systems settled into definite patterns. In America, the framework was shaped before the Twenties ended; in Britain, major changes such as the introduction of commercial TV came as late as 1954-1955.

Still another kind of approach to broadcasting is that of Canada. Canada has an adaptation of both the British and American methods. Broadcasting has had to be planned with thought in mind of the extremely large land area of the country and a relatively small population which is settled predominantly in a narrow strip along the country's southern border.

Canada has two types of operation in broadcasting. There is the Canadian Broadcasting Company which operates

¹London Illustrated News, October 1, 1955.

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Heorge A. Co Harris Inclose Harris Ari Color Harris Ari C stations and networks, and private commercial stations which operate some stations independently and some in association with the CBC networks. Since the country is bilingual, it is necessary to have both English and French programs and networks. Another problem is to provide service to the sparsely inhabited areas of the country. Since a commercial station would have difficulty furnishing such service at a profit, it has been necessary for CBC to furnish radio service, at least.

From 1936 to 1958 CBC acted as a public corporation broadcasting to the public and as a general regulatory power over broadcasting. The Board of Broadcast Governors (BBG) was established in 1958 to take over the regulatory powers of CBC.¹

Financing of the CBC stations has been accomplished through a small license fee on receivers, and through advertising fees for a few sponsored programs--popular American programs, for example.

Canadian stations have more sustaining programs than most American stations because they have not sold as high a proportion of sponsored time. Many of the sustaining programs are of serious music and other entertainment, and of subjects of interest to language and racial minorities. Some of these programs are broadcast during prime evening time.

¹George A. Codding, Jr., <u>Broadcasting Without Barriers</u> (New York: UNESCO, 1959) contains valuable information on foreign broadcasting systems. Charles A. Siepmann, <u>Radio</u>, <u>Television and Society</u> (New York: Oxford University Press, 1950) discusses British and Canadian systems quite fully.

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CHAPTER III

EARLY HISTORY

This study is based on the premise that the Twenties were the formative years of radio, the years in which American broadcasting as we know it today was molded and shaped to pattern. This is true, but in one sense radio has been evolving since the day man first began to speculate about electricity and electro-magnetic waves.

The list of scientists who has some part in making it possible for an American to switch on his radio or television and receive entertainment or information is too long to give. Nevertheless, one should at least doff his hat to James Clerk Maxwell, Heinrich Hertz, and a few others.

Scots-born James Clerk Maxwell was a theoretical physicist who was able to formulate mathematical equations to explain electro-magnetic radiation, to describe the movement of those waves, and to determine that their speed was the same as that of light, 186,000 miles per second.

Maxwell was professor of Natural Philosophy at London University and later the head of the Cavendish Laboratory at Cambridge University. In 1864 he explained electro-magnetic radiation--we call it by various names today depending on the wave length: radio waves, infra red and ultra violet

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rays, visible light, X rays, gamma rays, cosmic rays.

A few years afterwards, in 1886, a German physicist, Heinrich Hertz, was able to demonstrate some of Maxwell's theories by doing experiments in the transmission and reception of electro-magnetic waves, or "Hertzian Waves," as they became known.

Professor Eduard Branly of Paris became interested in Hertz' experiments. In 1890 he developed what he called a coherer, making it possible to detect more feeble electromagnetic waves than it had been possible for Hertz to do. The coherer was a small glass tube filled with fine metal filings which were caused by the electro-magnetic impulses to cling together and form a cohesive conductor.

Oliver Lodge, the famous English physicist, believed he could improve on Branly's coherer. He demonstrated his improved apparatus at the British Association for the Advancement of Science in 1894.

Over in Russia, Professor Aleksandr Popov followed the electro-magnetic experiments with great interest. When he read an account of the improvement Lodge had made in the coherer, he decided to improve even on that. In the following year he showed a new idea in coherers complete with a device for tapping the metal filings loose after each impulse.

Even the great American inventor, Thomas Edison, made a contribution unknowingly. As early as 1875, he noted the

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unusual action of electricity in a partial vacuum. This has since been called "the Edison effect," he called it "etheric force." Over a quarter of a century later, Fleming, de Forest, Langmuir, Arnold, and others put this discovery to good use in developing and perfecting the vacuum tube.

One man visualized the possibility of wireless communication as early as 1892 but could not interest any of the wire communication companies in his idea. This man was the British scientist, William Crookes.¹

The development of radio in the early days can be divided roughly into two approaches. There was the theoretical advance through contributions by scientists of many lands. There was also the advancement through efforts of men trying to find practical applications for the new discoveries-and ways they could be commercialized.

Maxwell, the Scot; Hertz, the German; Branly, the Frenchman, Lodge, the Englishman; and Popov, the Russian, were all scientists who contributed to the theoretical knowledge of radio, but who made no practical application of their work.

There were many men who did contribute to the practical application of experimental knowledge of the new wireless telegraphy, which later developed into radio. Many of these men were important inventors, but they also were interested

¹Gleason L. Archer, <u>History of Radio to 1926</u> (New York: The American Historical Society, Inc., 1938), p. 55.

in putting their inventions to work to serve mankind.

The public knows the name of Marconi best, possibly. Guglielmo Marconi, the Italian, during his career built a great network of wireless companies which served the greatest part of the world.

There were other great figures also. Reginald Fessenden, the Canadian, was a genius whose career was marred by his bad temper. Lee de Forest was an American inventor who is best remembered for his improvement of the vacuum tube, but who also had many other inventions to his credit. Germany's contribution to great names in radio invention would have to include Arco, Slaby, and Braun. Valdemar Poulsen was a Danish inventor who invented a generator useful in long distance transmission. Finally, one of the key figures in modern broadcasting is Ernst Alexanderson, the Swedish-born engineer employed by General Electric in the early days of radio. Alexanderson built an Alternator, as he called his generator, which was superior to any other in the world. The Alternator remained in America because the Radio Corporation was formed to take title to it. This prevented the Marconi interests from getting control of the invention and gave the United States pre-eminence in world radio. Indirectly it did much to shape the pattern of American broadcasting in the future.

The parts these men played in the story of American radio will be more fully discussed as we proceed. For the present let us return to Marconi and his part.

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Marconi was born in a wealthy Bolognese family and was educated by tutors. He showed a particular interest in physics and chemistry. He was only twenty in 1894 when he heard of Hertz' experiments with electro-magnetic waves. He became interested in making wireless telegraphy a practical reality. With the help of Professor Righi of the University of Bologna, he began to construct wireless apparatus.

It was this desire of Marconi to make a practical application of the wireless experiments which made the young man's name loom so large, according to Maclaurin.¹ He said that the Italian's work can be classified as applied research and engineering development rather than fundamental research. The point was also made that up to the founding of British Marconi in 1897, the major contributions to radio research had come from universities or foundations such as the Royal Institute. The scientists already mentioned--Maxwell, Hertz, Lodge, and Popov--after making a contribution to the knowledge of wireless communication had turned to other interests.

Marconi was different. He wanted to build apparatus that would work. After experimenting a year he was able to transmit a wireless message across his father's country estate. Guglielmo spent all his time on this absorbing new interest. He worked to improve his apparatus, and, after a year, he was able to send a message in Morse code over a distance of two miles.

¹See footnote page 29.

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The young man had now reached a point where he believed his work could have some commercial value. He believed in England he would find the best opportunity to develop the business side of wireless communication. Furthermore, since his mother was from an aristocratic Irish family, he expected to meet many influential people in the United Kingdom.

Among the capitalists and government officials Marconi met in England was William Preece, the engineer-in-charge of the British Post Office, the agency which controlled the communications of the country. Preece was an inventor also and watched with interest as Marconi sent wireless messages over a distance of eight miles. This demonstration led to the formation of the Marconi Wireless Telegraph Co., Ltd. (British Marconi) in 1897 for the purpose of sending communications point to point, and ship to shore, on a commercial basis.

British Marconi was formed with a capital of $\not Z$ 100,000 subscribed largely by investors who were willing to speculate on the long chance of ultimate but handsome profits.¹

¹W. Rupert Maclaurin, <u>Invention and Innovation in the</u> <u>Radio Industry</u> (New York: The Macmillan Company, 1949), p.42. <u>Maclaurin said British Marconi accumulated a deficit of</u> \$445,102 from 1903-1910. The first "good year" was 1912 when a profit of \$211,246 was shown. By 1918 the yearly profit had risen to \$711,842. Some of the increased efficiency after 1910 can be attributed to the work of Godfrey Isaacs, the managing director hired that year. Some of the success can also be laid to the ability of G. Marconi to hire the best scientific brains available--notably Professor Ambrose Fleming.

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Marconi, who was twenty-three at the time, received $\not \leq$ 15,000 in cash and sixty per cent of the stock for his patent rights. It was a long time before the speculators received any dividends--in fact it was 1910--because the new company still had many technical dirficulties to overcome and growing competition to meet.

Fear, or at least recognition, of competition may have made the Marconi interests rather ruthless in their attempts to gain monopoly by crowding out and buying up all possible competition and wireless patents.¹

From the very beginning, Marconi attempted to keep others out of the field by trying to lease rather than sell apparatus, and by refusing to cooperate with rivals such as de Forest of the United States, Slaby-Arco of Germany, and others. Before Marconi Company is condemned too severely it should be mentioned that the British Post Office, from whom Marconi had hoped for cooperation, and the Anglo-American Telegraph Company, operators of a transatlantic cable, both attempted to keep his company out of competition with them.

Marconi was soon able to demonstrate what wireless meant to the world. A wireless meassage was sent from the land to a ship ten miles at sea during the first year his

¹Maclaurin, <u>op. cit.</u>, pp. 43-44. "Marconi's contributions to the commercialization of wireless made him more important as an innovator than as an inventor. But his company succeeded in getting possession of many of the principal patents in the radio art, despite the fact that the most important wireless discoveries and inventions were not made by him or his associates."

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It seemed at last a method had been found of sending marine distress signals and of avoiding some of the frightful loss of life in sea disasters. One of the first distress signals was sent by the East Goodwin lightship in the Straits of Dover to report severe storm damage to the ship just one month after the Marconi wireless had been installed. Three months later the same lightship sent a wireless message saying it had been rammed by a freighter in a dense fog.

The two accidents at sea, which came most to the attention of the world in the years before World War I, were the sinking of the ship <u>Republic</u> in 1909, and that of the splendid liner <u>Titanic</u> in 1912.

The British ship <u>Republic</u> collided with the Italian <u>Florida</u> about 175 miles out of New York. Wireless distress signals were picked up by American shore stations and retransmitted to ships in the area of the collision. Because help was summoned, all the passengers and crew of the <u>Republic</u> were rescued before the ship sank, and the passengers of the <u>Florida</u> were taken off the damaged ship for the sake of safety. Wireless was used in a remarkable way that day. The transmitter of the <u>Republic</u> was used to guide rescue ships through the fog up to the side of the darkened ship.

The <u>Titanic</u> tragedy in 1912 is usually remembered as one in which over 1,500 persons lost their lives because

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nearby ships did not receive the SOS. At that time, ships were not required to have wireless operators on duty twentyfour hours a day. It was tragic so many had to drown, but it should not be forgotten that 700 persons were saved because some wireless messages had gotten through to ships some distance away.

Wireless was used over forty times in rescue work at sea between the time the <u>Republic</u> sank in 1909 and the Titanic in 1912.¹

This dramatic rescue work did not come about by a system which developed by smooth progression. Marconi was forced to make many experiments under varying conditions to prove his apparatus practicable.

There was enough of the showman about Marconi to try to arrange to use his wireless in such a way as to make it newsworthy. One such event was to use the wireless to report the Kingston Regatta from ship to shore in 1898. The next year he sent a message across the English Channel from Dover to Boulogne, a distance of thirty-two miles. He learned at this time he could not depend on the Post Office to cooperate with him under competitive conditions. He had wanted to link his shore station at Dover with London by wire but the Post Office refused because this would be in direct competition with their cable service to France. This was the same

¹George A. Coddings, Jr., <u>Broadcasting Without Barriers</u> (New York: UNESCO, 1959), pp. 13-14.

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year the light ship in the Straits of Dover sent out a distress signal to the Marconi station on shore and proved there was no English competitor in this ship to shore service.

Marconi was a practical man. He no doubt soon began to realize his best way of competing with other systems of communication was by sending messages over water and over long distances. With this in mind, Marconi began to incorporate companies in several parts of the world so that he could set up shore stations to take care of his ship to shore and long distance business.

One of the first of these companies was the American subsidiary--Marconi Wireless Telegraph Company of America-which was organized November 11, 1899. This was the first company organized to transmit wireless messages in America. The capitalization was \$10,000,000 with about twenty-five per cent held by British Marconi. The new company had the exclusive rights in the United States and Territories to "use and exploit" the patents of the parent company. American Marconi erected high-powered wireless stations at New Brunswick, New Jersey, Belmare, New Jersey, Marion, Massachusetts, Chatham, Massachusetts, Bolinas, California, Marshall, California, Kahuku and Kokohead, Hawaii.

The most dramatic event in which both the names Marconi and America are associated was the first transatlantic wireless transmission which took place December 11, 1901.

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Marconi had been pushing ahead with his great energy and drive in the attempt to extend his broadcasts to more and more distant points. His ultimate goal was to send a message across the Atlantic. This he accomplished on the day mentioned above. The message originated at a station at Poldhu, Cornwall, England and was received at St. Johns, Newfoundland, 3,000 miles away. The receiving equipment was temporary, so makeshift, in fact, that Marconi used a huge kite to carry the aerial aloft. The message was a single letter "S" repeated over and over, sent from one side of the ocean and faintly received on the other.

Although the world thrilled to Marconi's transoceanic message it had little effect on the financial success of the American Marconi company. This company became predominant in wireless communication in America in the days before World War I, but the success of the company was based on ship to shore and ship to ship communication. Transatlantic wireless did not become a commercial reality until several years later.

There were at least two reasons for the slow development of wireless service across the ocean. One, there was no generator strong enough to give sufficient power to insure dependable transmission for that distance under all conditions. Two, the cable companies were strong competitors in the quality of service they offered, in the rates they were able to give, and in the determination they had to keep Marconi out of their field.

Marconi felt the force of this competition a few days after the first England-to-Newfoundland message. The Anglo-American Telegraph Company, a transatlantic cable company, claimed the Marconi station in Newfoundland infringed on their exclusive franchise for a cable station in that province.

The Canadian government offered to furnish Z 16,000 and grant a franchise for Marconi to build a wireless station at Glace Bay, Nova Scotia. In return, the Marconi Company could give cut rate communications to the government when the station became operative.

As mentioned, the Marconi Company turned to the ship to shore business when it found competition with cable companies too stiff. The Marconi interests tried to protect their business by attempting to lease rather than sell wireless apparatus. They were able to do this with commerical shipping lines, but other arrangements had to be made for the navies of the world.

One of the first commercial contracts was with Lloyd's, the marine insurers. This company signed an exclusive contract for fourteen years which called for equipping their lighthouses with wireless and for erection of shore stations to handle the communications. Several important shipping lines also leased Marconi services. These included North German Lloyd, Hamburg-American Line, Compagnie Generale Transatlantique, the Cunard Line, and the American Line.

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The Marconi business spread rapidly. Forty-eight coastal stations were erected in various parts of the world by 1903. Besides the parent British company and the American subsidiary, other Marconi companies sprang up in Belgium, France, Italy, Canada, Argentina, and Russia--with more to come.

Marconi did not develop without competition in the wireless business. In spite of the company's efforts to protect its interests by leasing rather than selling equipment and by refusing to cooperate with other wireless companies, competition did appear.

In Europe the competition came chiefly from the German Telefunken Company. Telefunken made equipment based on the patents on the inventions of Professor Ferdinand Braun, Dr. Rudolf Slaby, and Count von Arco. The company built shore

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There were some American companies in competition with Marconi in the years before the war, also. The de Forest Wireless Telegraph Company and its successor, United Wireless Company, sold and leased equipment usually at lower rates than Marconi. The German company and de Forest both had been able to install equipment on American naval vessels because our government would buy equipment only on competitive bid. Marconi refused to do business this way so the other companies benefited.

United Fruit Company set up its own wireless system in the Caribbean. The company operated a fleet of vessels between its West Indian, Central and South American plantations and certain North American ports. The fruit company built shore stations at New Orleans, Boston, and a few points in Central America. It maintained a commercial service under license of Marconi and under certain patents it had acquired.

The Federal Telegraph Company maintained stations in California for ship to shore and ship to ship wireless service in the Pacific area. This company owned the rights to the Poulsen Arc Transmitter, which was the most powerful generator-transmitter until Alexanderson perfected his

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Broadcasting for entertainment did not develop prior to World War I. Receiving and transmitting apparatus was being sold in the United States to the companies in the communications field, to the United States government, and to amateurs and experimenters. The big electrical companies which were to dominate the business after the war were not manufacturing radio equipment for sale at this time. Westinghouse, General Electric, and Western Electric were all experimenting in the field but it was others who built the bulk of the equipment offered on the early market. Principal among the other companies were Marconi of America, Federal Telegraph, de Forest, and Wireless Specialty Apparatus Company, a subsidiary of United Fruit.

The apparatus being offered for sale at this time was really quite simple, for up to the time of the war an efficient vacuum tube had not been perfected. De Forest had added a third grid to the tube first devised by Fleming and had shown improvements possible. But even this improved tube was soon tied up in a lawsuit. It was sometime later before other scientists were able to more nearly approach

¹Gleason L. Archer, <u>History of Radio to 1926</u> (New York: The American Historical Society, Inc., 1938), p. 73. The U. S. Navy Department tested four European wireless systems, 1902-1903, and decided the German Slaby-Arco was best. Six experimental stations were built by the department (1903) to test the foreign systems and also those of the Americans, Fessenden and de Forest. A special school for operators was opened at the New York Naval Yard.

The Braun system was used by the U.S. Army, the

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vacuum in the tubes and thus make them more effective as detectors and amplifiers.

Of all the companies Marconi was the strongest and controlled the largest number of patents. It was possible for Marconi to have a monopoly if it could force its licensees to refuse to relay any messages not coming from a Marconi station. The German companies appealed to their government for help. An invitation was issued by that government for an international radio conference to be held in Berlin in August, 1903 to discuss the problems of the new industry. Austria, France, Germany, Hungary, Italy, Spain, Russia, the United Kingdom, and the United States all sent representatives. Not much was accomplished aside from some agreement on toll charges for wireless, and talk of an international distress signal.

A second conference was held in Berlin in 1906. Marconi still stood firm on not relaying messages from other makes of apparatus. The British government put pressure on the Marconi people and the ruling was changed finally in 1908. This became official in the 1912 conference, through the efforts of Britain and Italy.¹

The Marconi companies kept growing, kept pressing forward to take advantage of every opportunity. As already

Fessenden by the U.S. Weather Bureau. Many Navy men seemed to favor the de Forest machines.

¹Codding, <u>op. cit.</u>, p. 15.

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noted, a new contract was made with the British Admiralty when it was found the old leasing arrangement was not satisfactory. Similar contracts were offered other navies of the world. An innovation in the contracts with navies now appeared. It was agreed that naval vessels would relay messages from merchant marine operators and commercial Marconi stations. In turn, the navies had special privileges at Marconi shore stations thus eliminating the need for the governments to build their own.

United Wireless went bankrupt in 1912 as a result of damages in the infringement suits brought against the company over the Fleming valve and Lodge tuning device patents. This was a great boon to the Marconi interests. The American and British Marconi interests acquired the assets of the bankrupt company and removed a major competitor. Soon after this, Marconi raised its minimum charges to \$1,000 a year and prospered mightily. From that day until the United States entered the war in 1917, American Marconi carried ninety per cent of the American ship to shore business.

American Marconi reached the peak of its power and growth when the war broke out in Europe. At that time it was attempting to take one final step which would have virtually given it and its sister companies a monopoly of world wireless communications.

General Electric had the patents on the Alexanderson Alternator, a generator powerful enough to use in world-wide

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wireless or voice radio. Senator¹ Marconi himself made a trip to Schenectady to inspect the wonderful machine. The Marconi interests made a handsome offer for control of it. Only war saved the Alternator for America, negotiations were broken off until peace should return.

¹Douglas Coe, Marconi, <u>Pioneer of Radio</u> (New York: Julian Messner, Inc., 1943), p. 216. Marconi was named a Senator by the King of Italy. This was an honor used "for the recognition of remarkable distinction in the fields of art, literature, or science." <u>Encyclopedia Britannica</u> (1952), XIV, 470, gives the date of the award as 1909, the same year Marconi received the Nobel prize for physics.

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CHAPTER IV

DE FOREST AND FESSENDEN

Lee de Forest was a scientist and inventor with a wide range of creative work to his credit. The contributions he made to modern life were many and varied, but his fame would have been sufficient if he had only the de Forest audion (vacuum tube) to his credit.

De Forest went to work for the Western Electric Company in Chicago soon after he received his doctorate from Yale in 1899. He was interested in finding a better detector than the Branly coherer for use in wireless telegraphy. He spend a great deal of his time, and probably the company's, trying to develop and perfect such a device. He changed jobs the next year to go with the American Wireless Telegraph Company of Milwaukee. He showed company officials his responder, as he called his invention, and they wanted it. He refused to turn it over to his employers and was discharged.

For the next year or so, back in Chicago, de Forest had a difficult time making a living because he spent so much time on his invention. He worked part-time as assistant editor of the <u>Western Electrician</u> and part-time in Armour Institute. In addition, he taught two nights a week

<u>1</u>=21 ₹₹**£** 11 22 : X---: 4 5 • ier w ÷:: 12 1 37 : 11-. S. 2 Sei le -1.5 -. 43 535 ÷÷ • at Lewis Institute. Finally he gave up all work but the teaching job which paid \$5 a week. He borrowed another \$5 a week from a former associate by the name of Smythe. With this money he managed to exist until he completed work on his wireless apparatus. Then he and Smythe together took out a patent on the responder.

In 1901, de Forest was offered \$800 to use his new invention to report the International Yacht Race. The offer was made by the Publishers Press Association. De Forest did not have all the equipment he needed to report the race so he borrowed \$1000 from friends on the promise of a stock interest in a telegraph company not yet formed. The press association arranged for a tug to follow the ships in the race. De Forest set up his transmitter aboard the tug from which an account of the race was to be wirelessed to a receiving station on the shore. In turn, the report could be relayed from there by telegraph and telephone to various newspapers. The press association counted on the novelty of the idea to have wide appeal.

Unfortunately, Associated Press, and a third party had the same idea. In fact, all three major systems of the day were in use at the race: Marconi, Fessenden, and de Forest. A still more unfortunate circumstance was that all three transmitters were working on the same frequency and drowned each other out. No report of the race was received by wireless from any one of the three. De Forest received

nte or glo it the new e <u>.</u> Shortly my in New Blegraph Con. lan Departrie Die tested HELS WETE IA dieless stat ziline fa might de Fo E Entrañ g -iptor a de Interr Rest to per antons in . The wi 12 30 entru Nei the st R to estar and te ext 12: 123 no fee or glory for his job. He was saddled with the debt for the new equipment as well as weighted with the sense of failure.

Shortly after this fiasco, de Forest set up a laboratory in New Jersey under the firm name of American Wireless Telegraph Company and began looking for business. Soon the Navy Department invited him to send some apparatus to them to be tested alongside that of Marconi and Fessenden. The tests were favorable. He was given an order to set up two wireless stations for the Navy. This kept his laboratory and little factory busy and prosperous for a time. It also brought de Forest to the attention of Sir Thomas Lipton, the British yachtsman.

Lipton was the owner of <u>Shamrock III</u> a boat entered in the International Yacht Race of 1903. Lipton invited de Forest to report the race by wireless. De Forest took precautions in this race. He reached an agreement with rival reporters so there was no confusion in wave lengths.

The wireless report of the race was a success. Lipton was so enthusiastic about de Forest's apparatus that he invited the young scientist to come to England. Lipton's idea was to interest British capital in de Forest's company so it could be expanded. But the influence of the British Marconi Company was too strong for de Forest to get support there. De Forest did make one good impression which resulted in a chance to try his apparatus out under a new condition. The

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<u>Times</u> (London) asked de Forest to use wireless to report the war which was developing between the Russians and the Japanese in the Pacific.

De Forest sent two of his ablest assistants to the Shantung peninsula in China where they improvised and erected a 150 foot tower of bamboo on a sea-side cliff for a receiving station they set up there. A small steamer sailed about the Yellow Sea to pick up news of ship movements and warlike engagements to wireless back to the land station. This news was then relayed by telegraph and cable to London.

The Russo-Japanese war gave different wireless systems an extensive test. Scattered over the war area there were wireless outfits made by all the major companies. Wireless was used by the combatants, by reporters, and by observers of neutral powers.

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The de Forest equipment was used to report for the <u>Times</u> (London); the British navy used Marconi with Branly coherers; the Italians used Marconi with a different coherer; the Germans and French were using Braun. As for the combatants, the Russians used a variation of Braun; the Japanese used what they called original equipment which seemed to be based on the Marconi design.

During these early years, 1902-1906, de Forest took out thirty-four patents on wireless telegraphy equipment. The most intensive work of this period was pointed toward

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his outstanding invention in radio, the audion vacuum tube.

De Forest's audion was an adaptation of the vacuum tube first conceived by Professor Ambrose Fleming, the English physicist. Fleming's "valve," which was patented in 1905, made use of the "Edison effect" as previously mentioned.

The original Fleming valve was really not as effective as crystal detectors. But the idea set investigators on the right track. Fleming assigned his patent rights in the invention to the Marconi Company when he became associated with them as a consultant.

The Federal Trade Commission in its investigation of the radio industry in the Twenties described the Fleming valve or two element vacuum tube as "an evacuated vessel containing a filament and a plate--these two elements being connected in a circuit with a microphone in such a manner that high frequency waves compressed upon the circuit otherwise inaudible in the telephone receiver would be rendered audible by the rectifying action of the tube. <u>The patent on</u> <u>this tube covered its use for radio purposes only</u>."¹ (Italics added.)

The de Forest invention was a three element vacuum tube. The third element or grid which de Forest added to the Fleming design was "to be used not merely to rectify [detect] electric oscillations, but to relay or repeat them

^{1&}lt;u>The Federal Trade Commission Report on the Radio</u> <u>Industry (Washington: Government Printing Office, 1924)</u>,p.26.

on a magnified scale, so that when employed with the proper instruments such as the telephone, a considerable increase in detecting power occurs."¹

De Forest patented his audion or grid vacuum tube in 1907 and for a few years manufactured it for sale. But not for long, because American Macroni brought suit for infringement of the Fleming patent which the Marconi interests then owned. An injunction was granted against de Forest prohibiting him from manufacturing grid tubes. The court held that the Fleming patent "dominated use of a vacuum tube either as a detector, repeater, amplifier, or oscillator."²

The irony of the situation was that de Forest could no longer manufacture his improved tube for radio, and Marconi could manufacture only the less valuable two element tube. Everyone, even the public, lost by the court decision.

Before the Marconi suit, de Forest had demonstrated the efficacy of his audion in <u>wireless</u> <u>telephony</u>. In 1907, he transmitted voice from a Lackawanna ferry to the company's Hoboken and Manhattan terminals. He also conducted experiments the same year from a yacht cruising in Lake Erie and from United States naval vessels. The range of signals was not great but the experiments were impressive. In fact, the Great White Fleet, which President Theodore Roosevelt sent around the world in 1907, had twenty ships equipped with

1<u>Ibid.</u>, p. 26.

²FTC Report (1924), 26; 236 Fed. Rep. 942.

the new radio telephone.

Walter Lord described this in his recent book: "At sea the Great White Fleet itself experimented with a device which could also prove a miraculous bridge between peoples-the radio telephone, the New York <u>Sun</u> reported. There was a division of opinion among the officers as to the real value of the invention."¹

A biography of Lee de Forest is in one sense a history of the wireless telegraph companies he formed, and of the triumphs and upsets of those companies. As noted, shortly after he failed in his first attempt to report a yacht race he formed De Forest Wireless Telegraph Company. We know he was in debt \$1,000 for the equipment he purchased to use in reporting the race. He borrowed a few hundred more and set up a laboratory and trial transmitting station in Jersey City. He slowly began to make headway there when the U. S. Navy became interested in his work.

About this same time he met a stock promoter named Abraham White. White suggested a new corporation--the American de Forest Wireless Telegraph Company--with a capitalization of \$3,000,000.

The new company was formed and prospects seemed bright. An order came from the War Department for receiving equipment for an Army tugboat and for two land stations for the Signal Corps. Later an order came from the Navy for two land

¹Walter Lord, <u>The Good Years</u> (New York: Harper & Bros., 1960), p. 219.

stations. This was encouraging to de Forest, for up to this point the Navy had been buying most of its apparatus from Slaby-Arco.

The company continued to grow. In 1904, the United Fruit Company asked de Forest to build a wireless link between Costa Rica and Panama for them. The following year the Navy awarded de Forest a contract for five transmitting and receiving stations along the Gulf of Mexico.

Then de Forest overexpanded and was forced out of business. The assets of the company passed to a new corporation, the United Wireless Telegraph Company. De Forest was not a part of this. He personally retained the patent rights to his new audion.

Now de Forest became associated with a new corporation, the de Forest Radio Telephone Company, capitalized for two million dollars. This was the company which sold the Navy the radio telephone apparatus for the around-the-world cruise of the Great White Fleet. The equipment was assembled and installed rather hastily and was inefficient by later standards, but it did work for a limited range. One novel use was made of it. Menaratti, an operator aboard one of the ships, broadcast phonograph records daily to the rest of the fleet. This man may go down in history as the first disc jockey.¹

In those early years, de Forest used what we would call stunts to get publicity for his company and apparatus.

¹Maclaurin, op. cit., pp. 82-84.

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One such endeavor, in 1908, was his radio telephone broadcast from the Eiffel Tower in Paris. With the cooperation of the French government, he set up his transmitter at the base of the tower and used most of the height of the structure as an aerial. French government receivers reported clear and distinct reception of the records played on the Pathe phonograph for distances up to twenty-eight miles. The next day it was learned the broadcast had been heard in Marseilles, five hundred miles away. The broadcast had been made in the evening and the sky waves had bounced back to earth that far away.

De Forest received much publicity for his broadcast of the voice of the great opera star, Enrico Caruso, from the Metropolitan Opera House, January 20, 1910. The great singer was invited to sing opera over the new radio telephone. Accounts of the event vary as to the quality of the reception. Possibly fifty people heard the broadcast. A few in New York City and on ships in the harbor said they heard the tenor's voice very distinctly, others said there was a sound heard, but it did not come through distinctly. There were a few who complained that some amateur on the same wave length spoiled the reception.

In spite of the good publicity de Forest received, his financial troubles were far from past. The de Forest Radio Telephone Company failed in 1911 after an unsuccessful attempt to become a part of a new ten million dollar corporation,

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the North American Wireless Corporation. Doctor de Forest had to find a job. He went to work for the Federal Telegraph Company for \$300 per month. During the two years he worked there, he developed telegraph transmitters and receivers capable of handling ninety words per minute on the Los Angeles-San Francisco line.

De Forest did not step out of his business deals without reaction. He and several of his associates were indicted for using the mails to defraud in their attempt to sell radio stock. This was in May, 1912.

During the trial de Forest's audion was scoffed at as a device which looked like an incandescent lamp but was worthless. De Forest's statement that some day the human voice would be broadcast across the ocean in a practicable manner was also scorned as an impossible claim used merely to sell radio stock to the gullible for ten to twenty-five dollars a share. De Forest was finally acquitted although two of his former associates were sent to prison.¹

Thirty-four years later, David Sarnoff, president of RCA, hailed the audion as one of the twenty greatest inventions of all times. Mr. Sarnoff pointed out "that modern telegraphy, telephony, radio, motion pictures, phonographs, transportation, navigation, aviation, and hundreds of industrial operations now employ de Forest's basic invention."²

¹<u>New York Times</u>, January 1, 1914, p. 1; <u>New York Times</u>, January 8, 1914, p. 20.

²Monroe Upton, <u>Electronics for Everyone</u> (New York: New American Library, 1958), p. 131.

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De Forest received another positive nudge from fate. This came about the time he and his associates were waiting for their trial to be held.

He had been working on methods of getting greater benefits from the audion by using two or three tubes in a cascade or series. This experiment seemed to be on the right path, but de Forest was not entirely satisfied with results. Nevertheless, this experiment took place at the very time when AT&T was looking for any method which could be used for repeater or booster effect in long distance telephone calls.

Up to this time the phone company had not been able to send a long distance call much farther than Chicago from New York City--then it faded out. The World's Fair was to open in San Francisco in 1915. The telephone company wanted to be able to demonstrate at that fair that coast-to-coast telephone service was now possible. It would be a dramatic demonstration. The de Forest audion in cascade offered some hope the feat could be accomplished. Doctor de Forest showed his experiment to Bell scientists. They were interested but not entirely satisfied. They were concerned about how the design could be improved.¹

¹Several men made improvements on the audion. Langmuir of General Electric built a tube with higher degree of vacuum, therefore, with greater efficiency. Arnold of Western Electric, Coolidge of GE, Just and Hanaman of GE, and Babcock of AT&T all made valuable contributions in making the audion a detector, a repeater, an amplifier, and oscillator. All the improvements and resulting patents made such an impasse for commercial development that a patent pool soon became necessary.

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De Forest took his share of the money for the telephone rights to the audion and reorganized his old company.

The following years showed mixed results for de Forest. He began to experiment with broadcasting again in 1916. It was on one of these broadcasts that Vaughn de Leath, "the Original Radio Girl," based her title to fame. Most of the program material, however, was the playing of phonograph records supplied by Columbia and the reading of news releases from the <u>New York American</u>. Among the news stories was one which gave the results of the Wilson-Hughes presidential election. These broadcasting activities might be called the positive side of 1916 for de Forest. On the negative side that year was the adverse decision for de Forest in the

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Fleming infringement suit.¹

The next year America was at war and the federal government placed a ban on broadcasting. But there were bright sides to de Forest's fortune in 1917. That year AT&T paid \$250,000 for the remaining rights to the audion. And, also, because of the war, de Forest had the opportunity to manufacture audions for military communications systems without fear of patent reprisals.

After the war, de Forest's interests spread to other fields in which he made important contributions: talkingmoving pictures, television, and diathermy--he no longer figured prominently in the development of radio.

Reginald Aubrey Fessenden

Professor Fessenden, a Canadian-born scientist, made contributions to the development of the radio receiver which rank with those made by de Forest and Armstrong. His design of the heterodyne circuit was nearly as important a development as the audion for home receivers

Fessenden was a professor at the University of Pittsburgh in 1900 when the U.S. Weather Bureau hired him to conduct experiments in wireless telegraphy. It was thought

¹Archer, <u>op. cit.</u>, pp. 132-135. De Forest seemed always to be fighting a patent suit. His longest lasted twenty years. It was with Edwin Armstrong, the father of FM radio over the rights to a process called current feedback based on a method of multiple hookup of audions for stronger reception of radio signals. All decisions in the lower courts were against de Forest, finally in 1934 the U. S. Supreme Court decided de Forest had priority. De Forest

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wireless could be used to broadcast weather forecasts and storm warnings.

The professor had been interested in wireless for a long time. He thought a better detector than the coherer could be contrived. His first attempt was what he called a "hot wire barretter," an apparatus much like an electric lamp with a special kind of filament for detecting the impulses. A more efficient detector was made possible by an observation made by an assistant. Following a suggestion of his assistant, Fessenden made a detector which he called a "liquid barretter" or "electrolytic detector." Fessenden used a special type of platinum wire and a dilute nitric acid solution within a tube as component parts. With this device the professor was able to detect the human voice faintly.

Fessenden was showing good progress in his experiments and was encouraged in his work by the officials of the Weather Bureau. He had been able to demonstrate his ability to transmit speech, but he was not satisfied. He needed better equipment. He realized he had a workable receiver, but the transmitting was not satisfactory. He had used two towers fifty feet high and a mile apart in his attempt to transmit from one to the other but the spark apparatus was so noisy it drowned out voices.

Radio Telephone and Telegraph Co. v. Armstrong, N. Y., 46 S Ct 471, 270 US 663 (1925), 70 L Ed 787 den'g cert. <u>Arm-</u> strong v. De Forest Radio Telephone and Telegraphy Co., CCA, 10 F2d 727.

• : 82) 22 P 1 54 ie. ; · · · · : exp ÷., 20,0 -----÷: : 54 ----• At this point when the Weather Bureau was pleased with the experiments and urged him to go on, Fessenden quarreled about patent rights on some of his work and quit his job. This same kind of trouble occurred many times in Fessenden's life. He was quarrelsome, fractious--just difficult to get along with, to say the least.

After he left the Weather Bureau, Fessenden was able to interest two Pittsburgh capitalists in the prospects of his experiments. The two men, Hay Walker, Jr. and Thomas H. Given, supplied the money to form the National Electric Signaling Company (NESCO). The original investment was about \$100,000 but Fessenden often called on them for more money. Before the company was finally sold out, the backers had supplied over two million dollars.

Fessenden felt his problem was to design a high speed, high frequency alternator (generator) for sending purposes. The frequency would have to be too high to be audible to the human ear. With this kind of transmitting equipment and with his improved detector he believed he would be able to send and receive the human voice over long distances-possibly even over the ocean.

The professor knew the alternator he wanted was beyond anything Thomson, Tesla, or other scientists had ever built. By 1903 he had completed plans for a machine which he thought would do the work he needed. He took the design of the machine to General Electric for Charles Steinmetz to build.

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If it would work the way he visualized, it would be far superior to Marconi's spark transmitter.

The machine was finally completed, but the tests were disappointing. The frequency it was capable of producing was still not high enough.

While Fessenden still dreamed about a high frequency generator, the National Electric Signaling Company went ahead with the construction of transmission stations. Three were erected along Chesapeake Bay; at Old Point Comfort, at Cape Charles, and at Ocean View. A little later these were given up for others along the Atlantic Coast. The principal station was the one at Brant Rock, Massachusetts, a short distance from Boston. A little later construction was started on a station at Machrihanish, Scotland, because it was felt the day was not far off when transatlantic broadcasting would be practicable.

In the meantime, Fessenden's life was affected by several major events at one time. Fessenden started negotiations with General Electric for an alternator capable of 100,000 cycles frequency. Also, he was working to perfect his heterodyne principle, and he was in the midst of a legal suit with de Forest over the patent rights on the electrolytic detector. Fessenden and NESCO contended that a device made by de Forest and his assistant Babcock was an infringement on the Fessenden patent. The case was finally settled in Fessenden's favor.

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The order for the second alternator which Fessenden placed with General Electric was turned over to Ernst F. W. Alexanderson. It became his responsibility to build it.¹

Alexanderson was a young man in his twenties when he was given the so-called impossible task of building an alternator capable of generating the high frequency current Fessenden wanted. The choleric inventor could not agree with Alexanderson on design, so it was necessary for the young man to follow along with ideas he did not necessarily approve. Alexanderson prepared a design for a machine with a stationary laminated iron armature with two rotating discs. Fessenden objected to the iron armature and insisted on one of wood--and his mind could not be changed. It was 1906 before Alexanderson was able to deliver the alternator in the general form Fessenden desired. This machine was sent to the Brant Rock station in September of that year.

¹Archer, <u>op. cit.</u>, p. 83; Alexanderson was born January 25, 1878 in Upsala, Sweden, the son of a university professor. He studied at the University of Lund and the Royal Technical Institute in Stockholm, graduating as electrical engineer. He had a year post graduate work with Slaby in Berlin. A book by Steinmetz inspired him to go to America to see the great man. He himself finally worked at General Electric with Steinmetz, whose great intellect thrilled him.

Walter R. G. Baker, from an interview recorded in <u>Oral</u> <u>History Collection</u>, Columbia University. Mr. Baker worked with Ernst Alexanderson as a mechanical engineer at General Electric. Baker said: "Alexanderson always gave a great deal in discussion, but he had such a brilliant mind you could never follow him very closely. He would jump ten, fifteen, or twenty steps in the development of an idea and come out with the result and leave you wondering how he got it."

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Fessenden tried out some new ideas in the Brant Rock installation. He erected a sending tower quite different from any ever before attempted. The tower was a great metal tube three feet in diameter, as Dr. Gleason L. Archer described it. It was 420 feet high and rested on a steel sphere as a base. The tube was made in eight foot sections which had been bolted together and supported at four points along the length by sets of guy wires. The tower and wires were carefully insulated from the earth.¹

The Brant Rock station went on the air December 11, 1905, the year before the Alexanderson Alternator was delivered. Even with the spark transmitting equipment Fessenden had available at that time, the signal issuing from the tower was superior to anything being broadcast elsewhere. The first broadcast was picked up in Puerto Rico, strong and clear. A letter from that same place in June, 1906 said Brant Rock was received well even when a Marconi station nearby was cut off on account of static.

The Brant Rock station had its first exchange of wireless messages with the installation in Scotland on New Years Day, 1906. Fessenden and his associates were elated with the fine reception on both sides the Atlantic. They had visions of the first practicable and dependable transatlantic wireless. Their hopes of great commercial success were dashed when the receivers went blank after three days. No

¹Archer, <u>op. cit.</u>, 84.

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mechanical or technical reason for this stoppage could be found, no method of correction was successful. Three weeks later the apparatus began to work again. The stations operated efficiently for a short while then blankness recurred. The problem was never solved. A few months later the station in Scotland was largely destroyed during a storm. The company never rebuilt it, for attention was drawn to other problems.

The Alexanderson Alternator was delivered to Brant Rock in September, 1906. Fessenden looked forward to broadcasting voice with this new machine. The equipment was assembled, everything was in place, but the machine would not work. The whole machine was torn down laboriously and a little wire was found which had come loose from its terminal. Repairs were quickly made, the machine was reassembled, and it worked!

The first demonstration of radio telephony from Brant Rock was made to a station eleven miles away at Plymouth, Massachusetts. But the most historic broadcast from this station was made on Christmas Eve, 1906. This was picked up by United Fruit Company ships, by U. S. Naval vessels, and by other craft along the Atlantic coast as far south as lower Virginia. This has been called the first radio program in history.

Astonished wireless operators on the ships called their officers and shipmates to hear the music and voices coming

out of the air. In keeping with the Christmas season, Brant Rock, in this first program, broadcast a recording of Handel's "Largo," a violin solo of "O, Holy Night," and a Bible reading.¹

Fessenden was working on other inventions at this time. One was his heterodyne principle, which was somewhat ahead of the times but was necessary for the reception of high frequency oscillations coming from the new alternator. A nontechnical explanation of the principle is that two currents of different frequencies when becoming part of a single circuit establish a new frequency. For example, if there was a frequency of 301,000 cycles to be received--and this was beyond the capacity of the receiver--an adjustment could be made if a second current of 300,000 cycles were added to the first. A new frequency of 1,000 cycles would result, and this probably would be within the range of the receiver.

A few years later, Major Edwin Armstrong was able to make still greater advances in reception by improving on Fessenden's idea in a circuit which became known as superheterodyne--a term familiar, if not understood, to most radio fans of the late Twenties and early Thirties.

The other important invention which Fessenden perfected about this time (1909) was the one which led to the breakup of his company. This was a new spark gap sending apparatus which sent Morse Code with an exceptionally clear signal that

¹Upton, <u>op. cit</u>., p. 121.

: ł even penetrated static. The United States Navy and the United Fruit Company purchased several. The potential market seemed excellent for this superior transmitter. But the partners were not satisfied with equipment sales, they wanted to do something bigger. They felt they could go into transoceanic communications with a chance of competing with the cable companies.

An application was made to the British Post Office for a license to open up wireless stations in the United Kingdom for sending and receiving service with America. The British officials asked for proof of performance from Fessenden's company. It was agreed that demonstration of ability to communicate between Brant Rock and New Orleans would be sufficient for the granting of a nine year license in their country. The Americans held out for a fifteen year license, the British finally agreed to grant it if the test proved successful.

The test went off well. The next step was to set up a Canadian company to handle the link between Canada and England. NESCO officials assumed this would be a subsidiary of their firm but Fessenden decided, in a wave of patriotic feeling toward his Canadian birthplace, the company should be separate, should be a Canadian, and should be controlled by a Canadian, Reginald A. Fessenden.

The anger of the two Pittsburgh businessmen, who had poured two million dollars into the speculation, can be understood. They had supported Fessenden all the way. They



had agreed to increases in salary for Fessenden even before the company promised to show a profit. Now when their investment might begin to pay returns from a transoceanic communication system, the inventor wanted it all for himself.

A quarrel developed between the financers and Fessenden. Walker and Given did not feel the inventor was being fair with them so they dismissed him from the company. Fessenden sued for breach of contract and was awarded \$400,000 in damages. The suit was appealed. During the appeal National Electric Signaling Company operated under a receiver and tried to carry on with experimental work.

The company was also carrying on other expensive legal battles.¹ Marconi was suing for infringement of several of its patents; NESCO was suing Marconi for infringements of its patents on continuous wave apparatus. NESCO received \$300,000 in royalties in settlement from Marconi, and in turn had to pay Marconi \$30,000 for that company's claim.

The decision on the appeal of the Fessenden suit was rendered. Fessenden had to be paid off. When it was all over, the National Company had little left but the patents they owned. The transoceanic wireless telegraph business was never developed by them. Marconi was left without competition to develop that.

The National Electric Signaling Company soon discontinued business. The radio patents went to a new corporation

INational Electric Signaling Company v. Fessenden 207 F 915 (1913), 125 CCA 363; Marconi v. National Electric Signaling Co. 206 F 295 (1913).

organized by Walker and Given. This was called the International Signaling Company. Shortly after this Given bought out Walker. No returns on the Given investment came for several years, and after Given's death. His wife had an opportunity to make a deal with Westinghouse in 1919-1920. After a series of legal maneuvers a new corporation, The International Radio Telegraph Company, took over control of the Fessenden patents. A large part of the stock went to the Given's estate and control to Westinghouse.

Westinghouse now was in a bargaining position to talk with General Electric and its new subsidiary, RCA. Westinghouse was invited to bring the Fessenden patents and its own radio patents and join in the ownership of RCA. Thus the Fessenden patents came under control of RCA. The Given family, after waiting many years, reaped a handsome return on their investment. They were paid 450,000 shares of RCA preferred stock and 450,000 shares of RCA common for their interests.

Reginald Fessenden turned his attention away from radio to other fields of electronics, much as Lee de Forest did.

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CHAPTER V

ALEXANDERSON AND RCA

Lee de Forest's grid vacuum tube may have been one of the greatest inventions of all times, but, until the tube was made efficient, the Alexanderson Alternator was the most sought after apparatus in the radio industry.

Without a high frequency alternator such as the Alexanderson, or the Poulsen arc transmitter as second best, ship to shore wireless was the extent of this type of communication which could be practiced with commercial certainty and success.

The world had been thrilled when Marconi made his first transatlantic broadcast in 1901, when Fessenden made long distance broadcasts from Brant Rock, and to some of de Forest's experiments, but commercial transatlantic message service had never become a reality up to the time the United States government took over the Marconi stations on the coast during the war.¹

General Electric was installing an Alexanderson Alternator in the New Brunswick, New Jersey, Marconi station when the government commandeered the station. This became America's link with Europe. Even though the British had cut

¹FTC Report, 1924, op. cit., pp. 11-12.

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cables from America to the continent to prevent communications with Germany, the Alexanderson Alternator made direct radio contact with Europe possible.

The U. S. Navy Department had long been concerned about the problem of communication. The Navy had been investigating wireless long before World War I. It has been thinking in terms of defense, of naval strategy, and of ship movement such as they had seen practiced in the Russo-Japanese war and more recently in the European War of 1914.

Because of this concern, and because the Navy knew it had to have long distance transmission independent of cable companies, the government purchased the patent rights to the arc transmitter invented in 1903 by Valdemar Poulsen, the Danish scientist. The Poulsen rights were purchased from the Federal Telegraph Company in 1918. Marconi interests had been negotiating for the Alexanderson Alternator when our government took over the American Marconi stations.

The United States government had the opportunity to give the Alexanderson Alternator a good trial at the Marconi station. The machine installed there was a 50 kw capacity. Alexanderson was already working on a new one of a 200 kw capacity. Once the war was over someone would be able to buy control of the machine.

In a sense, there were only two possible customers in the United States for the Alternators--the United States government and Marconi. American Marconi, as previously

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noted, benefited from the failure of United Wireless, and of NESCO. Clark Wireless Company had shown some promise of development on the Great Lakes but had been crowded out; Federal Telegraph Company worked on the Pacific coast and had little that was exclusive after the sale of the Poulsen patent except some Chinese telegraph rights. United Fruit Company was interested in its own banana business.

The story of the founding of the Radio Corporation of America is in its essence the story of the struggle between Marconi and the United States Navy over the Alexanderson Alternator.

American Marconi completed its high powered station at New Brunswick, New Jersey, in 1913 and began others along the Atlantic coast. About this time the German Telefunken Company built a similar station at Sayville, Long Island, and a French company erected one at Tuckerton, New Jersey. These three companies hoped to compete with the seventeen cables which linked America and Europe. The cables were, in the main, between the United States and Great Britain and France. Unfortunately, as has been noted, the wireless companies were unable to compete efficiently and continuously with the cable companies.

Senor Marconi came to America in the spring of 1915 to testify in a legal matter in which the American subsidiary of his company was involved. He made a special trip to the General Electric laboratories at Schenectady to see the

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Alternator he had heard so much about. As a result of this visit, negotiations were begun toward the acquisition by British Marconi of exclusive rights to the Alternator. If it was not decided at this time to install a 50 kw Alternator in the New Brunswick station for testing transatlantic messages, the decision certainly was made after the German cable was cut.

The war cut short the negotiations between General Electric and British Marconi over the purchase of the rights to the Alternator, for Marconi was called back to Italy for service in the armed forces. Negotiations were suspended by agreement of both sides to resume them at the end of the hostilities.

In the meantime, General Electric started installation of an Alternator at New Brunswick; the United States entered the war and took over the Marconi stations.

The 50 kw Alternator at New Brunswick was put into operation by the government and proved very successful. Shortly afterward in 1918, General Electric completed its new 200 kw Alternator. The United States Navy suggested to American Marconi that the company put one of the new Alternators in the commandeered station at New Brunswick but Marconi would not agree to this. General Electric was eager to put the machine to a test so it installed the Alternator at New Brunswick at its own expense. It rebuilt the aerial and entire transmitting system.
The new equipment was marvelous. It carried the bulk of the wireless traffic between America and Europe from June, 1918 to March 1, 1920 when the government ban on private broadcasting was lifted. A government report said it was the "first high powered station on the Atlantic coast which transmitted radio messages continuously and reliably."¹ It has been reported that battleships all over the world were able to pick up messages from this station RFF. Even troops in the field in Europe were able to receive the station on portable outfits. The New Brunswick station was also used to relay news of the United States to the newspapers for servicemen in Europe.

After the demonstration that world radio was possible and practicable through the use of the 200 kw Alexanderson Alternator, it was not surprising the Marconi interests were eager to renew negotiations with General Electric. These talks began about March, 1919.

British Marconi wanted exclusive control of Alexanderson's invention. They offered \$127,000 each for fourteen Alternators for American Marconi and ten for British Marconi. There was delay because General Electric was unwilling to sell exclusive rights but insisted on some sort of royalty arrangement. The two parties had nearly reached agreement when representatives of the U. S. Navy visited General Electric.

Rear Admiral William H. G. Bullard and Commander S. C. Hooper talked first with Owen D. Young, then a vice president

^{1&}lt;u>FTC Report</u> (1924), p. 15.

of General Electric, and later with a group of other top officials of the company. Bullard and Hooper came directly from President Woodrow Wilson in Paris, where he was attending the Peace Conference. The President wanted General Electric to discontinue negotiations with the Marconi interests because once control of the Alternator passed to the British they would have a monopoly of international radio in the same way they did of international cables.¹

General Electric had invested a great deal of money and had assembled a staff of experts to produce the Alexanderson Alternators for a limited potential market--limited almost to British and American Marconi, and possibly the United States government. The Marconi companies had offered an initial multi-million dollar contract with prospects of still more in the future. Now government representatives were asking General Electric to refuse this business and profit. It would be difficult to explain such action to the stockholders and workers who might be affected.

^LErnst F. W. Alexanderson, from an interview recorded in the <u>Oral History Collection</u>, Columbia University, 27. This is Doctor Alexanderson's account of what took place after the Marconi offer to buy the Alternator:

[&]quot;But when the contract was on its way, President Wilson interceded and said that he wouldn't permit the rights to be sold because the British wanted to develop a communication system that could monopolize all the communications facilities or the world. So President Wilson asked Mr. Young to form a company for the exploitation of those rights in America. At least, my understanding is that he had something to do with it. Probably his advisers advised him to do it, but anyway a representation from the government was made to Mr. Young and he took actions whereby the General Electric Company bought American Marconi Company."

Admiral Bullard had an answer to this dilemma. He said an American company could be formed which would "take over" the Alternator, the Navy radio stations and patents, and the American Marconi interests. In this manner the country would be assured of an American-owned international system and General Electric would be assured of a market for equipment. At first, Young and his GE associates were not enthusiastic about going into a strange business, the communications business. When it was suggested that it was a natural connection with their manufacturing of radio telegraph equipment they became interested.¹

The United States government through the Navy Department had acquired large holdings in communications during World War I. It had purchased the patent rights for the Poulsen arc transmitter and several land stations from the Federal Telegraph Company; it owned several land stations; and it commandeered Marconi and other commercial stations. The proposal now was to form a new American corporation, as noted, to acquire the radio telegraph properties of the United States government, the Marconi properties, and the Alexanderson Alternator.

The organizers of an American company to control communication faced many difficulties. The first obstacle, strangely enough, was the government itself. Commander

¹Ida M. Tarbell, <u>Owen D. Young</u> (New York: Macmillan, 1932), 131ff is the best account found of Mr. Young's part in the formation of RCA. Margery R. Cosgrove, personal secretary to Mr. Young, wrote "Tarbell's report is substantially correct." Letter to writer January 24, 1962.

Hooper and Admiral Bullard had been enthusiastic about such a company and had suggested this company could acquire the government holdings, but there were others in the government who did not agree.

Owen D. Young went to Washington to talk with Assistant Secretary of the Navy Franklin D. Roosevelt about Bullard's plan. Roosevelt was acting for Secretary Josephus Daniels who was in Paris with President Wilson. Tarbell seemed to think a program was worked out which Roosevelt approved and sent on to Daniels in Paris.¹ Freidel said Roosevelt discovered British Marconi "would be influential if not dominant within the proposed company."² Freidel possibly did not understand the company was to be wholly Americanowned under this first arrangement. It is conceivable some of the stockholders might have been old Marconi stockholders of American nationality.

If Franklin Roosevelt had not become so prominent in public life later on, his part as assistant secretary might never have been remembered, for Secretary Daniels made the decision--a negative one. Daniels felt he had no authority as Secretary, without Congress' consent, to sell the properties now that the war was ended. Furthermore, Daniels made no attempt to hide his personal opinion: the government should own and operate the communication system.

¹Tarbell, <u>op. cit.</u>, p. 131.

²Frank Freidel, <u>Franklin Roosevelt</u>, <u>The Ordeal</u> (Boston: Little, Brown and Company, 1954) II, p. 28.

In fact, a bill was being introduced in Congress to make this possible.

In the meantime, General Electric went ahead with plans to acquire American Marconi. The Schenectady company had the most powerful bargaining agent in the industry in the Alternator.

The war years had been years of rapid technological advances, coming because of the urgent pressure of war. Dr. Alfred N. Goldsmith has said in his book the whole value of aircraft in the war as observation aids depended on the ability to report what was seen from the air to headquarters on the ground as quickly as possible. This meant workable radio units had to be perfected and manufactured rapidly.¹

The British government asked Westinghouse to carry out certain experiments and manufacture radio telephone equipment. This led to the setting up of experimental stations for testing the radio equipment in East Pittsburgh and at Dr. Frank Conrad's home in Wilkinsburg, Pa. Out of these grew KDKA, one of the pioneer and great stations of commercial radio. AT&T scientists in the Bell and Western Electric laboratories were working to improve vacuum tubes and other radio equipment. The laboratories of Wireless Specialty, a United Fruit subsidiary, also helped out in the war effort.

¹Alfred N. Goldsmith and Austin C. Lescarboura, <u>This</u> <u>Thing Called Broadcasting</u> (New York: Henry Holt and Company, 1930), p. 15.

The United States government ordered a freeze on radio patents during the war so infringement suits would not hold back the manufacture of needed radio parts.¹

The company which Admiral Bullard suggested for keeping international communications in the hands of Americans would have to face the patent problem once the freeze was lifted. The ban could not be continued much longer now that hostilities had ceased.

The company holding the largest bank of radio patents was the American Marconi through its own patents and those of the British company. But Marconi lacked the Alexanderson and was helpless competitively in its American operation without it. Young and his associates knew this fact and used it.

American Marconi was a vast enterprise--the largest radio company in America before the war. There were thousands of American stockholders, there was property and patents valued at millions, and a strong organization linked closely with the British Marconi. It looked like a difficult task to convince British interests to sell their shares in such a promising property. But General Electric had the leverage

¹Under the freeze, firms manufactured goods for the government using the patent rights belonging to others but with the guarantee of the government to protect them on infringement counts. 'In this way de Forest was able to manufacture three grid tubes even though there was a judgment of infringement of the Fleming patent standing against him. Several other companies also made the tubes.

of the Alexanderson Alternator which they did not choose to sell, lease, or release in any way to Marconi interests except on their own terms.

Tarbell seems to be the only author who explains how Young and his associates were able to convince Marconi to sell. The argument used was the cross licensing idea, in a sense. General Electric offered British a reasonable price for its stock in the American subsidiary, and cross licensing. Marconi could have the use of Alexanderson Alternators for twenty years, and the two companies would exchange the use of each other's radio patents. This was a good bargain for both, a division of business between America and the British Empire, an exchange of patents so both could benefit.

Far greater than the benefits to either company was that to the art itself, according to Tarbell's quotation of Owen D. Young:

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, the 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.¹

Owen D. Young kept in close touch with the departments of State and Commerce as well as the Attorney General's office

¹Tarbell, <u>op. cit.</u>, p. 134.

during the organizing of the new company. Admiral Bullard was always interested, always pushing the project.

General Electric had to negotiate two ways at the same time: first, it had to talk with British Marconi about the sale of its interest in American Marconi; second, it had to talk with American Marconi about the sale of its properties and good will, and about use of its patents. The American talks were contingent on the outcome of the British talks, and vice versa.

The new company, the Radio Corporation of America, was organized in October, 1919, with a capital of \$25,000,000. American Marconi sold its physical properties, patents, licenses, and good will for two million shares of RCA preferred stock (\$5 par value). General Electric agreed to put three million dollars into the company, taking preferred stock at par value. Furthermore, the electric company agreed to turn in to the new company any patents then owned and any which might be developed in the next twenty-five years in the radio field for common stock at no par value.¹

Foreign share certificates were limited to 20 per cent in the new company. Voting rights on other than foreign shares were transferable only to American citizens. Under the original organization plan, a director of the company, or the Secretary of the Navy had the right to challenge anyone on stock ownership as being by an American citizen or

¹FTC Report, 1924, <u>op. cit.</u>, p. 17.

an American corporation.

The Radio Corporation of America began business as a communications company. Tarbell characterized its progress by saying "with incredible rapidity international communication began, first with Great Britain, then Norway, then Germany, then France, then Hawaii and Japan."¹ Owen D. Young noted that America was soon able to lay down any message she cared to put on radio in twenty different countries.

By the end of 1922, the assets of RCA had risen to \$40,975,608.17. There were 3,955,974 shares of preferred stock of \$5 par value, and 5,734,000 shares of common stock, no par value, outstanding.

The shares owned by the major interested companies were:

	Common	Preferred
General Electric Westinghouse United Fruit	1,875,000 1,000,000 160,000	620,800 1,000,000 200,000
	3,035,000	1,820,800

By this date, December, 1922, AT&T had disposed of, or was in the process of selling, 400,000 preferred shares it held.²

Even though the formation of RCA had included a cross licensing agreement between Marconi and General Electric,

¹Tarbell, <u>op. cit.</u>, p. 134. ²<u>FTC Report</u>, 1924, <u>op. cit</u>., p. 22. many of the two thousand or more radio patents remained outside the combine. A little later Westinghouse, AT&T, and United Fruit Company also came into RCA. This made it easier to reach agreements between the leading American manufacturers.

There was a great deal of patent confusion over the manufacture of tubes. Besides the original Fleming and de Forest patents there were many others covering patents on improvements developed in the laboratories of General Electric, Western Electric, and Bell. The Navy was concerned because it had need for large numbers of tubes yearly just for replacements in the apparatus developed during the war. A. J. Hepburn, Acting Chief of the Bureau of Steam Engineering of the Navy, in January 1920 suggested to General Electric and American Telephone that some agreement among the patentees was necessary if the public was to be supplied with tubes.

AT&T apparently had a policy of watching all of the communication media with the thought always in mind to act in the way to best protect the corporation's interests in wire telephony. In the early days no one knew in what way radio telephony would develop. Not many persons thought radio would develop as an entertainment medium supported by advertisers. It was thought radio might develop in a form of telephony. It was established early that the human voice could be transmitted by radio from point to point.

As Coon pointed out, AT&T needed vacuum tubes and

could not afford to have the development in this field arrested or have its monopoly in long distance wire telephony threatened. It would be a very serious matter to have others enter the field of two-way radio telephony particularly if they could adapt it to public service.

American Telephone entered a cross agreement with General Electric July 1, 1920 with every effort made to protect its telephone interests. AT&T received exclusive wire and radio telephone rights in the domestic field under this agreement. The telephone company in turn gave General Electric and RCA the right to use its patents in the manufacture of radio receivers. Non-exclusive licenses were exchanged in the field of international telephony.

The makers of the agreement had no way of visualizing the course radio would take when they made the agreements in 1920. Not many anticipated that the entertainment side of radio would soon be greater than the communication. Even after home radio began to develop the companies had a general agreement by which the telephone company confined its efforts in radio to telephony and to manufacturing radio transmitters while General Electric--and Westinghouse, also, later--could manufacture radio receiving sets.

The radio market developed beyond a communication business soon after the ban was lifted by the government in 1920. There was a great rush for sending and receiving equipment.

¹Horace Coon, <u>American Tel. and Tel.</u> (New York: Longmans, Green, and Company, 1939), p. 206.

Because of their war work, both Westinghouse and General Electric were in a position to manufacture receivers. The two companies agreed to make RCA their sales agent for radio receivers. RCA agreed to take 60 per cent of its needs from General Electric, and 40 per cent from Westinghouse. Both companies contracted to sell radio receivers to RCA for 20 per cent above manufacturing costs.

One of the first problems which arose with the growth of radio as an amusement medium and which was not covered by the cross licensing agreements was the question of furnishing wire services to radio stations. Sometimes it was necessary to have a wire connection between the origination point of the program and the transmitter if the two places were separated. At first, programs had been broadcast from radio studios located at the transmitter. As program variety developed it occasionally was necessary to broadcast from "remote" or "nemo" places. A church service broadcast would necessitate a wire connection from the microphones in the church to the transmitter. A report of a sports event might call for the same sort of wire service.

AT&T took the position that wire service was not part of its public service as a telephone company. The company expressed willingness to furnish wire service any time possible as long as it did not interfere with its telephone business. In other words, the phone company would decide when it was

able to give wire connection service to radio; no one should expect it as a matter of course.¹

The scene was laid for a long struggle between the big companies in radio. The prize was great. A new industry was developing which would make undreamed of profits a reality.

¹Federal Communications Commission, <u>Proposed Report</u>, <u>Telephone Investigation</u> (1938), pp, 455-458, 461-463.

CHAPTER VI

PIONEER RADIO STATIONS

One of the most debated subjects in American broadcasting history is which radio station was the first to institute regular broadcasts. It is possible to read long arguments to prove that KDKA, the Westinghouse station in Pittsburgh was first. The same is true of WWJ, the <u>Detroit</u> <u>News</u> station. They are only two of the claimants. There are many others.

Let this be the first treatise on early radio which has not been led into the confusion. Suffice it to say, in the case of the two principals, KDKA and WWJ, each has sufficient claim to glory for its early accomplishments without worry about which was "first." They both were pioneers and both should always be remembered in the history of communication.

A \$5.00 bet on the accuracy of a cheap watch was the first step in a sequence of events which led to commercial broadcasting at KDKA, if some of the tenuous connections are admitted.

Frank Conrad was assistant chief engineer at Westinghouse Electric in Pittsburgh in 1912. One day Thomas Perkins, a fellow employee, showed Conrad an expensive watch

he had just bought. Conrad said the watch was no more accurate than the \$12 watch he carried. He had made the statement jokingly, but Perkins was indignant that Conrad compared the new watch with a cheap timepiece. Conrad enjoyed teasing his friend. In the end he offered to match the accuracy of his cheap watch against that of Perkins'. A wager of \$5 was agreed upon.

Conrad decided to play a joke on his friend. He exchanged the works of a \$65 dollar watch for that of the cheap one. To test the accuracy of the watch he checked with Western Union time. He noticed a variation in time, but did not believe the fault was in the watch.

Conrad wanted the most accurate time check he could get so he built a radio set over which he could receive Naval Observatory time signals broadcast from Arlington, Virginia. Having done this, he adjusted his watch, and won the bet. We assume he returned the five dollars, and told his friend the story so they both could have a good laugh.¹

The bet on the watch in 1912 had played its part: it made Conrad a radio fan. He began to experiment with a transmitter as well as a receiver. His station was on the second floor of his carriage house garage at the rear of his residence in Wilkinsburg, Pa. This experimental station was licensed as 8XK. It has been related that

¹Literary Digest, March 13, 1937, pp. 19-20.

"it is from this station that KDKA stems and with it radio broadcasting as it is today."¹

Conrad's experiments were cut short with the cancellation of all amateur licenses, April 7, 1917, the day after the United States entered World War I. The station was used on occasion during the war under special authorization to test radio equipment being manufactured by Westinghouse for the military. After the ban was lifted May 1, 1920, the station was relicensed.

The interest in radio had increased during the war. After Doctor Conrad returned to the air with his experimental station 8XK he found he had many persons listening to his broadcasts. He received many letters from fans reporting they heard his signal and wanted to report on its quality and on the distance of reception. Because of the monotony of talking to test his equipment, Conrad one night placed a phonograph in front of the microphone and played records.

This act seemed to amaze and please radio "hams" all over the countryside. Conrad's mail became a flood of letters with requests for certain records to be played at specified times. At first he tried to grant as many of the requests as he could, but soon this became impossible. He announced the volume of requests was so great he no longer could answer them all individually at the times stated.

Westinghouse Electric Co., "History of Radio Broadcasting and KDKA" (a mimeographed history, n.d., published sometime after World War II), p. 5.

Instead he said he would "broadcast" records for two hours each Wednesday and Saturday evening.¹

The formal schedule had not been operating long before Conrad exhausted his supply of phonograph records. The Hamilton Music Store of Wilkinsburg offered to lend him records to use on the radio if he would be kind enough to mention the name of the store in his broadcasts. Thus the music store early learned the benefits of radio advertising.

The programs of phonograph recordings continued for some time. Occasionally vocal or instrumental "live talent" was added as a special treat. Conrad's two young sons, Crawford and Francis, relieved him from time to time as masters of ceremony, but otherwise there was little change from the first scheduled broadcast.

The step which transformed 8XK from an experimental hobby of Conrad's to an outstanding commercial radio station, KDKA, was simply a man reading a newspaper. The man was not just any man, but H. P. Davis, a Westinghouse vice president who was intensely interested in Conrad's radio experiments. The newspaper Davis was reading contained an advertisement offering to sell radios to persons who wanted to listen to Doctor Conrad's concerts. Davis at once saw the opportunity for Westinghouse: build a radio station to broadcast programs. This would create a market for radio receivers which Westinghouse could manufacture.

l"Broadcast" came into early use. Sometimes the past tense was used in the form of "broadcasted." It was not long, however, before broadcast became both the present and past

Davis reread the ad which the Joseph Horne Company, a Pittsburgh department store had inserted in the local <u>Sun</u> Wednesday, September 29, 1920:

Air Concert "Picked Up" by Radio Here

Victrola music, played into the air over a wireless telephone, was "picked up" by listeners on the wireless receiving station which was recently installed here for patrons interested in wireless experiments. The Concert was heard Thursday night about 10 o'clock and continued about 20 minutes. Two orchestra numbers, a soprano solo--which rang particularly high and clear--and a juvenile "talking piece" constituted the program.

The music was from a victrola pulled close to the transmitter of a wireless telephone in the home of Frank Conrad, Penn and Peebles Avenues, Wilkinsburg. Dr. Conrad is a wireless enthusiast and "puts on" the wireless concerts periodically for the entertainment of the many people in this district who have wireless sets.

Amateur Wireless Sets, made by the maker of the set which is in operation in our store, are on sale here, \$10.00 up.

Mr. Davis was soon able to convince officials at Westinghouse that a business opportunity lay in selling receiving sets if the proper sending station were established to furnish entertainment.

An application was made to the Department of Commerce for a radio station license on October 16, 1920. Conrad and D. G. Little of Westinghouse set about constructing a transmitter so they could be on the air to announce results

tense. Another word "radiocast" was tried as a verb but never achieved popularity.

of the Harding-Cox election, November 2. The license was approved October 27, 1920 and the call letters KDKA were assigned.

Arrangements had been made with the <u>Pittsburgh</u> <u>Post</u>, a morning paper, to have the results telephoned to the station as they came into the paper during the evening.

The station was constructed in a tiny, makeshift shack on the roof of a Westinghouse manufacturing building in East Pittsburgh. The transmitting equipment, the record turntable, and the broadcasting staff were all crowded in one room. There was an operator, an announcer, and two men to handle the telephone lines to the newspaper. Two men stood by at the newspaper office to telephone the wire reports to KDKA as fast as they were received there. Mr. Little was the engineer. Dr. Conrad stood by at the experimental station in his garage loft, ready to take the air in case transmitting at KDKA failed or faltered.

The initial program at KDKA began at 6:00 P.M., November 2, 1920, and continued until noon the next day, long after Cox, the Democratic candidate had conceded victory for Harding. Music was played between the election reports, so there was entertainment value to the broadcast as well as information.

Dr. L. W. Chubb of the Westinghouse Radio Engineering Department had set up a receiver and loudspeaker at the Edgewood Club, a suburban Pittsburgh community center. Many

Westinghouse employees and other residents gathered there to hear the historic broadcast. Not only these persons, but hundreds of others, many from some distance, reported hearing KDKA that night.

KDKA set standards of programming early in its history. Some of these have served as standards for the industry. They pledged themselves to work in cooperation with the press in news coverage; to try to benefit the greatest number of listeners with programs of interest; to avoid monotony in programming; to channel distinctive features into a regular time schedule.

The station also tried many innovations in programming. One of these was broadcasting a church service by remote pickup. The service was from Calvary Episcopal Church in Pittsburgh and was conducted by Dr. Edwin Jan van Etten. Recalling the broadcast, Dr. van Etten declared:

All was going well, but on glancing at the choir I discovered strange faces and noted unusual antics. It was not until later that I learned these were Westinghouse engineers--one a Jewish lad, the other a Irish Catholic--garbed in surplices to make them inconspicuous in the midst of my Protestant Episcopal choir.

Even now, as I think of their presence there, it seems to me that they symbolize the real universality of radio religion.¹

KDKA tried another church experiment by broadcasting the Calvary Episcopal service to a receiver and loudspeaker set up in the Herron Presbyterian Church on a Sunday when it

Westinghouse, op. cit., pp. 8-9.

was necessary for the minister of that church to be absent.¹

Into this new radio station, KDKA, one day in December, 1920, came an inquisitive young man. He was eager to see the new station set up by Dr. Conrad. He was Harold W. Arlin, a young electrical engineer working for Westinghouse at East Pittsburgh. During the tour of the station he was invited to speak into the microphone.

As West has said, "Fortunately he was gifted with precise diction, and a resonant voice, sharp enough to clear through the imperfect conditions of transmission and receiving sets."²

The microphone Arlin spoke into has been described as looking like a fur-lined tomato can. His voice had a natural quality that broadcast so well in the early days of radio. He was quickly hired as a full-time announcer. At first his duties were comparatively simple. He had to chat informally with his unseen audience between the playing of phonograph records. Later on there was sports reporting to do, and famous people to introduce and interview.

Harold Arlin reminisced recently about his work as an early radio announcer. He was at his home in Mansfield, Ohio where he had retired after thirty-five years as an executive in the Westinghouse plant in that city. He said his

1<u>Radio Broadcast</u> Magazine, May, 1922, p. 17.

²Robert West, <u>The Rape of Radio</u> (New York: Rodin Publishing Co., 1941), p. 23.

announcing job gave him the pleasure of meeting many famous people. He introduced Herbert Hoover when he made a plea for money to buy food for the people left desolate in Europe after World War I. Arlin also introduced Lloyd George to the audience when the British Premier visited America, and Marshal Foch when he made his trip to this country in the Twenties. Arlin said he thrilled to hear Will Rogers give an unrehearsed comedy sketch of some length. His material was taken from a newspaper which was handed him as he stepped before the microphone. The announcer also remembered the reception William Jennings Bryan received in his first appearance before the microphone.¹

Arlin related several humorous experiences before the "mike" which still make him chuckle. One night he was interviewing Babe Ruth, who was supposed to read a prepared statement. Ruth had mike fright and couldn't speak. Arlin quickly took the paper from Ruth and read the statement himself. During the next few days several letters were received at the station complimenting Babe on his fine speaking voice. Another time, Arlin was re-creating a prize fight between Dempsey and Firpo, and was doing it from a wire report, as it came in, round by round. Something went wrong with the telegraph. Arlin could no longer keep up the illusion of a ringside account of the fight. Many fans could never understand why there was a switch right in the very middle of

lHarold Arlin, interview with the writer, November 6, 1961.

things from the fight to market reports.

Arlin's voice became known world-wide through his announcing over Westinghouse's short wave station. One housewife in Australia wrote about his health after listening to a program on which he coughed. The <u>Times</u> (London) called him "the best known American voice in Europe" and said many Britons stayed up all night to hear him.¹

The shack on top the Westinghouse building served satisfactorily only as long as the broadcasts were phonograph concerts, or programs from churches, stadiums, or other remote locations. Before the summer of 1921 it was decided to program orchestras and live talent. There were several employee musical groups in the Westinghouse organization; these groups volunteered to perform over radio.

The first of these programs were broadcast from the plant auditorium, but the resonance in the room was so great the music came out of the receiver distorted. To correct this, a tent was pitched alongside the shack on the roof. The broadcasting was done from there. This served very well all that summer and into the fall, but then it was destroyed during a heavy wind storm.

The bad weather forced the company to build another indoor studio. Someone had the idea of pitching a tent indoors to escape the resonance caused by the sound waves bouncing off the hard walls. In essence, this is what the

¹<u>Rotarian</u> Magazine, November, 1955, p. 63.

engineers did: they lined the studio walls and ceiling with drapes and burlap. This corrected the problem, the reception was satisfactory.

KDKA continued to grow, continued to set standards for other stations to follow. Dr. Frank Conrad soon began to devote much of his time to perfecting short wave radio. This became an important step in making radio broadcasting reach out for great distances. A repeater station was built at Hastings, Nebraska, in January, 1924. This made possible relays from Pittsburgh to the Pacific coast.

General Electric Stations

General Electric, Westinghouse's principle competitor in the manufacture of electrical devices, was a little slower in getting into broadcasting. GE had worked on radio equipment during the war, and was prepared to make radio receivers when Westinghouse started. The progress and purpose in broadcasting at GE closely paralleled that at Westinghouse. The two companies were closely associated as members of the "radio group."

Clyde D. Wagoner, who directed the publicity and promotion of the General Electric stations in the early days, stated the purpose of the company very succinctly:

General Electric began broadcasting in 1922 for two reasons:

1. To help in the sales of radio receivers which it was manufacturing. There were but few in the business at that time.

2. To establish a studio-workshop or laboratory where newly developed broadcasting equipment could be

put to a practical test; also a place where prospective customers could come and see broadcasting equipment in actual operation.

General Electric had no thought of entering the entertainment field. It was a manufacturer of electrical equipment and in no way associated with the entertainment field.

Its first broadcast station was WGY, about the tenth in the country when opened. Later the Company built two more stations, to expand national interest in buying radio receivers. One was KOA in Denver and the other KGO in Oakland, Calif.¹

The operation of these stations became a great burden to the Radio and Publicity Departments which were footing the bills. This problem became an industry problem. Who was to pay for broadcasting? The problem will be discussed in a later chapter.

WWJ, the Detroit News Station

WWJ came into existence by chance much as KDKA had. To compare with the \$12 watch, the radio to pick up the Arlington time signals, and the company official reading a newspaper which figured in the founding of KDKA, there was a wireless operator who needed a loan, a kind-hearted and farsighted publisher, and a young son with an interest in automobiles and wireless sets.

William E. Scripps, the publisher, befriended Thomas E. Clark, who had been working with wireless in Detroit since 1900. Clark established his own company and secured the wireless contract for the Detroit and Cleveland Navigation Company ships on the Great Lakes until about 1910.

¹Clyde B. Wagoner, personal correspondence with the writer, October 9, 1961.

Clark was unable to withstand the squeeze of the larger wireless companies when they moved into the area about that time.

Clark asked Scripps for a loan during those pre-war days, for his funds for experimental work were low. Scripps became interested in what Clark was doing. Clark was full of enthusiam for wireless and in turn made Scripps feel the same. The newspaper man began to visualize what might be done with radio--how a newspaper might use radio. Scripps not only thought of radio as a news disseminator but also as a news gatherer. In his own words:

The thought occurred to methat perhaps the <u>News</u> should become interested in wireless telephony. I thought perhaps that we might even afford to put in a wireless station, and have an operator sit there all day long and just gather any news that might come from the air. I don't know what the restrictions were on stealing stuff from the air in those days. I didn't know whether there were any laws covering that point or not, but I thought that at least we might try it and see what happened. After using what persuasive powers I had, I finally got the consent of the Board to install a set.¹

Young Bill Scripps, the publisher's son, had an early amateur radio station in his name. He was a frequent visitor to Clark's shop, and in turn Clark helped erect radio equipment at the family city residence on Trumbull Avenue and at the summer home at suburban Lake Orion.

Radio Broadcast magazine of June, 1922, published an article telling of the predecessor of WWJ and of the institution of regular weekday broadcasts which began August 30, 1920 after ten days of experimental broadcasting.

¹William E. Scripps, from an interview recorded in the <u>Oral History Project</u>, Columbia University, p. 23.

The first regular broadcast was a report of the local, state, and Congressional primary election results.¹

The importance of WWJ to the development of radio is not what it was "first" in, but that a newspaper would spend as much as it did on the station without any revenue for several years or profit for a longer period of time. The sole benefit to the owners of the <u>Detroit News</u> station WWJ was the publicity that came with the mention of the name of the newspaper along with the call letters of this pioneer station.

Banning quoted the radio editor of the <u>Detroit News</u> as saying goodwill was the only return they expected from the station. No increase in circulation or advertising could be attributed to the operation of the station, but he said "Our paper and our call letters, WWJ, have become known in every state in the Union and in countries within 4500 miles of Detroit, through our broadcasting service."²

It is difficult in the 1960's to appreciate how different radio was in the Twenties. In the first place, radio stations operated differently. They were not on the air as long as they are today. Some broadcast only a few hours a day or even a few hours a week. This was due in part to the number of frequencies or wave

²William Peck Banning, <u>Commercial Broadcasting Pioneer</u> (Cambridge: Harvard University Press, 1946), p. 237.

¹<u>WWJ-The Detroit News</u> (Detroit: The Evening News Assoc., 1922). The first set was a de Forest Type OT-10 transmitter, 200 meter wave length with range of not more than 100 miles. There were possibly 300 receivers in the area. Soon replaced by stronger Western Electric.

lengths that were available. Many of the receivers of that day were not adapted to tuning in a variety of wave lengths. Since several stations might be assigned to each of the few wave lengths available in an area, it was necessary for stations to divide time.

Radio was also a new art. There were no traditions, and few standards for programming. Even as Conrad, Fessenden, and de Forest had done, so were most of the other early station operators doing--using music as the main fare in the early program broadcast. Most of the music consisted of phonograph records, although there was instrumental or vocal music sometimes when visitors dropped in to try radio broadcasting. Now and then a speech was given, or some sports or election results read, or some hymns sung.

WWJ faced the problem of being on the air part of every week day and presenting programs which would have enough variety so there would not be a monotonous sameness.

Concerning this early programming, Mr. Scripps said:

With regard to talent for our station, if a good band came to town we would try to get them to come down and play for us, charging them nothing for the experience. The first time that Fred Waring ever played before a microphone was in our station. There were no rates for talent in those days.

Otis Skinner and his wife came in one day. They knew about radio and had heard that we had a set so they came over to see it. They very graciously put on a Shakespearean act for us, with no thought of compensation, nor did we suggest that we might owe them something. We weren't getting compensation ourselves. It was not commercialized in any way at that time.

It was fascinating to run a radio station even in those days. The staff had to be versatile and willing to undertake the impossible. Rex White, a writer for the Detroit News, was drafted to help out on the radio station. He wrote sketches and shows for the station, sometimes as many as eighteen a week. He interviewed celebrities whenever they could be coaxed into the studio. These interviews were mostly ad lib and were often done on the spur of the moment. Even when there was time for preparation there was likely to be trouble. Sometimes seasoned performers would have stage fright in front of the microphone. Thurston, the great magician, was so nervous on his first appearance that the whole cast had to sit down. Even Mary Pickford lost her place while reading the script, the first time she appeared on WWJ.

One of the first problems in programming which faced WWJ was with the stage and screen stars who appeared on the station. There was fear that radio would hurt their box office. Later when they found what attractions they really were, they demanded large fees for appearances.

Rex White reminisced about this:

We started bringing in stage celebrities but we ran into trouble. The managers of the theaters felt that we were taking away a portion of their audiences who would stay at home and listen to the star on radio rather than pay, at that time, two dollars to hear them. Notices were posted in most of the dressing rooms saying that any actor who appeared over a radio station was to be immediately discharged. It took some little time to convince the managers what we were really doing was giving him an enormous amount of free publicity to fill his theater rather than empty it.¹

Mr. White may have had trouble getting theatrical talent to appear on WWJ, but he found it was just as difficult to keep off the air the undesirables, or "psychopaths" as he called them.

In retrospect, it is unusual that the <u>Detroit News</u> and other such organizations without direct connection with the radio industry invested so much time and money and talent inbuilding broadcasting stations from which only intangible results could be expected. The first transmitters were simple and inexpensive by present standards, but, nevertheless, it seems strange that astute businessmen put thousands of dollars in an enterprise which many people labeled a passing fancy.

The owners of WWJ seemed determined to do a good job of broadcasting. Attention was given to good programming and to keeping the equipment up-to-date. A special musical program was broadcast during the Christmas holidays in 1920 as well as one celebrating the new year. A more powerful transmitter was installed in June, 1921, less than a year after the station began regular broadcasts. A two wire antenna 290 feet long was strung from the <u>Detroit News</u> Building to the Fort Shelby Hotel. Soon after this new equipment was in operation, there was a report the programs were being received in Atlanta, Georgia.

¹Rex White, from an interview recorded in the <u>Oral</u> <u>History Project</u>, Columbia University, p. 2. The staff of the radio station grew. The staff had eleven members by the end of 1921, and occupied 3,000 square feet of space in the newspaper building.

WWJ expanded capacity again in February, 1922. A still more powerful transmitter was installed. Under favorable conditions it could be heard coast-to-coast.

That year there were new ideas in programming also. An extensive schedule of Lenten programs was inaugurated which culminated in a remote broadcast of the Easter Cantata from St. Paul's Episcopal Cathedral in Detroit.

Educational programs were tried in 1922 also. Broadcasts were made of extension programs from the state's largest schools, the University of Michigan at Ann Arbor, and the Michigan Agricultural College at East Lansing.

There was another important development at WWJ in 1922. In May, the <u>Detroit News</u> Orchestra was established with sixteen musicians, most of whom were also members of the Detroit Symphony Orchestra. This was at a cost of \$1,100 a week, which was a heavy expense item for a totally subsidized undertaking.

This account has gone to considerable detail about the development of WWJ because the station serves as an outstanding example of public service by a broadcaster who had very little expectation of any tangible benefits.

But more astounding than the account of the time and talent expended by the owners of WWJ in public service

broadcasting is the amount of money that was poured into the project year after year. Herbert Ponting who was in the business office of the <u>Detroit News</u> during the early years said the station started receiving some revenue when it joined the Red Network of AT&T through the telephone company's New York station. This was in 1925. Nevertheless, the station operated in the red for the first ten years (1920-1929). Even after profits started in 1930 it took another seven years to wipe out the deficits of the first ten. In other words, it was seventeen years before WWJ returned a profit to its owners.¹

Henry Ford and Radio

The electrical manufacturers who set up stations to broadcast so that they might sell more radio receivers, and the newspapers whose only benefit for years was largely the publicity of identification were not the only owners of radio stations. There were schools, churches, stores, and dance halls, and many kinds of business places.

¹Herbert Ponting, from an interview recorded in <u>Oral</u> <u>History Project</u>, Columbia University, p. 2.

	WWJ	<u>Costs</u> (operating	costs and	depreciation	included)
1920	costs	\$ 3,604	1926	revenue deficit	\$ 21,500 71,000
1921	costs	5,760	1927	revenue	29,000
1922	costs	80,000	1928	revenue	56,600
1923	costs	66,000	1929	revenue	106,000
1924	costs	66 ,0 00	1930	revenue	190,000
1925	reven defic:	ue 7,437 it 81,000		profit	, 000

One of the best known business men during the Twenties was interested in radio also. This was Henry Ford, the man who set America on wheels in his Model T Fords.

He had automobile plants in the metropolitan area of Detroit, he owned lake freighters, he operated lumber camps, he owned iron mining property in Upper Michigan and coal mining property in Kentucky, and a railroad--to mention only a few of his interests.

Ford thought and talked of radio in terms of developing a vast communication system (some 500 stations) through which his widely spread enterprises could be linked.¹

Some experimental radio work was done by the Ford interests as early as 1920. A station, KDEN, was built in Dearborn, Michigan, in August, 1921. Shortly thereafter, WNA, Springfield, Ohio, WFD, Flat Rock, Michigan, and KDEP, Northville, Michigan, were also constructed. There was another station, WWI, which will be discussed on the following page.²

Three other stations were constructed in the years 1923-1925 at Jackson, Ohio, and at L'Anse and Iron Mountain, Michigan. It is not clear if Ford meant to blanket the country with stations as a commercial communications network or if he planned to use the stations just for company messages.

1Ford News, August 15, 1921, p. 3.

²Office Memo to J. A. Moekle, Office of General Counsel, Ford Motor Co. from Henry E. Edmunds, manager Ford Archives, Dearborn, Michigan. There was one Ford radio station which broadcast for the entertainment of the public. This was station WWI, Dearborn, now all but forgotten, even by Mr. Ford's biographers.

Radio station WWI began to broadcast in May, 1922, on a 360 meter wave length for one hour, one night per week (10:00 to 11:00 P M. on Wednesdays) with a variety program. During the daytime, the station operated under a limited commercial license as KDEN. It was a part of the communications circuit of the Ford Motor Company.

The <u>Ford News</u>, an old company magazine, described the station studio as "heavily padded and quilted gray curtains with white padded ceilings have added greatly to the tone quality of both instrument and voice."¹ This is suggestive of the tent Westinghouse engineers built into an inside studio in order to escape the resonance caused by plastered walls.

The plant magazine of April 15, 1923, reported the radio station had received letters from listeners in thirty states--some as far away as New England, Florida, and Texas. The programs were enjoyed in Ontario and Quebec also.

A typical program broadcast by WWI during this early period was one presented in October, 1922. Musicians from the Ford Motor Company band played several numbers featuring the saxophone, an instrument which was very popular at that

¹<u>Ford News</u>, February 1, 1923, p. 4.

time. Other musical numbers on the program were vocal solos with piano accompaniment.

Dr. J. P. Pratt of the staff of Henry Ford Hospital, Detroit, gave a medical talk. Reprints of the talk were offered to anyone who might write for them. The program ended with interpretive readings of "Encouragement" and "Bells of St. Michael" to the strains of soft music.

This "made up a good evening."1

The station received a better time assignment in 1923. It went on the air at 8:00 instead of 10:00 P.M. The station manager did his best to present a variety program of local talent each week.

Within four years after the Federal Radio Commission was formed in 1927, the Ford stations were off the air. The Dearborn station was closed April 1, 1930 when the company was unable to renew its license. The other stations closed down June 25, 1931, for the same reason. In October, 1931, licenses for experimental stations at Dearborn and Lansing, Michgan were granted. These were held until August 8, 1934, when the new regulatory body, The Federal Communications Commission, did not grant renewals of licenses.²

¹Ford News, November 1, 1922, p. 1.

²Office Memo, to Moekle from Edmunds. An earlier station at Lansing had been established for experimental broadcasting with aircraft shortly after Ford acquired the Stout Metal Airplane Company in 1925.
CHAPTER VII

A GIANT BEGINS TO GROW

Herbert Hoover became Secretary of Commerce in 1921 and assumed the duty of licensing radio stations. He found he had no discretionary power in deciding who should be licensed. Persuasion seemed to be his only weapon in regulating licensees.

The government wartime ban against private radio stations had not been lifted long when Hoover took office, but the interest in radio was high. At the end of the first year, March, 1922, the department had granted only 65 licenses but by the end of the second year of Hoover's secretaryship there were 576 licensees.¹

Confusion and chaos in radio broadcasting was becoming evident by the end of 1921. Banning said,

By the end of 1921, the situation as to broadcasting was that hundreds wanted to broadcast, that millions wanted to listen, that no one was sure how broadcasting was to be supported, and that the rapidly growing industry was in an unwholesome and demoralized state.²

¹Banning, <u>op. cit</u>., p. 135.

 ²Distribution of radio broadcasting stations, January 1,

 1922 to February 1, 1923, <u>ibid</u>, p. 61.

 1922-Jan. -- 28
 1922--May--220
 1922--Sept.-496

 Feb. -- 36
 June-314
 Oct.--539

 Mar. -- 65
 July-378
 Nov.--554

 Apr. -- 133
 Aug.-451
 Dec.--570

 1923--Jan. -- 583; Feb.--576

There had been fewer than 50,000 receiving sets when Hoover took office as Secretary. The broadcasting stations were of low power and of short range.¹

Before the end of his first four years in office, Hoover looked back in amazement at the giant which had grown because of the public's demand for radio entertainment. The more than 500 radio stations made it possible to reach nearly every home in the country. The sales of radio apparatus during those four years increased from a million dollars a year to a million dollars a day. Two hundred thousand persons were believed to be employed to some degree in the industry which furnished entertainment to an audience of about twenty million.²

In the first years of Hoover's term as Secretary, radio stations sprang up in every state in the nation except Wyoming. California led with sixty-six, Ohio second with thirty-four, and New York third with twenty-eight. The best and most powerful stations were in the East.³

There should be no mistake about the longevity of radio stations. Since the Department of Commerce had no Power to set standards of financial responsibility c: of technical capabilities, licenses were necessarily granted to

¹Herbert C. Hoover, <u>The Memoirs of Herbert Hoover</u> (New York: Macmillan, 1952), II, p. 139. ²<u>Radio Broadcast</u> Magazine, December, 1924, p. 260. ³Literary Digest Magazine, November 11, 1922, p. 29.

many who would not be considered today. Undercapitalized and inexperienced operators of stations from which there was no revenue soon found broadcasting was an expensive hobby few men, companies, or institutions could afford. The turnover of licenses was extremely rapid.

Banning said that at the close of 1925 there had been 1,429 licenses granted since 1922 with only 562 still remaining active. Seven per cent of the licensees had never operated their stations, and forty per cent disappeared from the list within eighteen months after licensing.¹

Early radio sets were mainly of the crystal variety, although vacuum tubes were used more and more as they were perfected and became available.² In those early years production could not keep up with the demand.

E. L. Bragdon, radio editor of the <u>New York Sun</u> in the early Twenties, said of the tube situation in those years:

It should be understood that tubes in those days were not 60¢ each. Tubes had a list price of around \$6 yet were so scarce that no one could buy one without paying a bonus which brought it to \$8 or \$8.50 a tube. The life of the tube might be one night or again it might last three or four months. Thus the multi-tube sets were for the boys and men with money who were willing to gamble.³

¹Banning, <u>op. cit.</u>, p. 285.

²<u>Ibid.</u>, p. 281. By 1924, four million radio sets were in American homes of which 2.4 millions were "manufactured tube sets" and the balance "home-made tube sets and crystal sets in almost equal proportion."

³E. L. Bragdon from an interview recorded in the <u>Oral</u> <u>History Project</u> of Columbia University, p. 14. The <u>Literary</u> Radio became very popular in America. <u>The Literary</u> <u>Digest</u>, in 1922, devoted the front cover of one issue to a picture of a family--mother, father, and children--grouped around a radio enjoying an evening's entertainment coming to them from a station three hundred miles away. The <u>New</u> <u>York Times</u> ran a feature story on a classified ad in one of the metropolitan newspapers which had cited good radio reception as one of the selling points of a piece of country property.¹

This new industry with hundreds of thousands of employees, with 3,000 manufacturers, 1,000 distributors, 30,000 retailers, and millions of customers, grew like Topsy--to about a \$500,000,000 business in 1924.²

Among the stations which were being opened were several by Westinghouse. The broadcasts from KDKA had proved so popular that the company opened others in Newark, in Springfield, and in Chicago.

Digest magazine, May 13,1922, gives the vacuum tube production as follows: December, 1921, 5000 a month; April, 1922, 40,000 a month; May, 1922, 175,000 a month expected; June,1922, 200,000 expected.

¹<u>New York Times</u>, June 22, 1924. The want ad read: "Farm for sale: nine room house; fruit; two hours by rail from New York, excellent radio reception, KGO being heard consistently on one tube set. Price---, Box---."

²New York Times, June 22, 1924, XX, p. 7. <u>New York</u> <u>Times, September 21, 1924, p. 14.</u> The figures were based on a survey made by the American Radio Association earlier in 1924. Station WJZ, Newark, New Jersey, was opened in the Westinghouse plant there. This time there was no radio station housed in a shack on top of the roof--WJZ had quarters inside the building--on the second floor at the end of the women's cloak room where it was divided off by a curtain. In spite of the cramped quarters, within two months, <u>Radio</u> <u>News</u> magazine printed laudatory comments on the programs from that crowded studio:

Never before has a radio telephone station sent out broadcast, on a regular schedule, day after day so complete and satisfactory a musical and bulletin service; as a result of this, literally thousands of new receivers are being put in operation every week, and a tremendous interest in radio telephony has been aroused.

Within six months <u>Radio Broadcast</u> commented that WJZ had an evening audience of 300,000 persons.

The WJZ studio in Newark was not conveniently located for New York City talent. Arrangements had to be made to have limousines and taxis take the artists to and from the metropolis. A studio was opened in New York City at the Waldorf-Astoria Hotel in February, 1922. This same month RCA became co-sponsor and paid half the operating expenses.

A struggle for power in the industry was beginning to shape up. WJZ had broadcast sports events as special programs since its early days on the air.² The station, in line with this policy, decided to broadcast the World Series

1Radio News, December, 1921, p. 482.

²Raymond F. Guy in an interview recorded in the <u>Oral</u> <u>History Collection</u>, Columbia University, p. 34. in 1922. This broadcast required a remote hookup by wire from the baseball stadium to the transmitter. The telephone company refused to furnish this service. This may or may not have been because the phone company's experimental toll radio station in New York was now in operation. The new station, WEAF, and WJZ were the outstanding stations in the city and natural rivals. Because the telephone company refused service, WJZ was forced to use telegraph wires for connections. This did not prove as satisfactory as a telephone connection.

The position of the American Telephone and Telegraph Company on this matter in 1922 was that it had exclusive rights under the cross licensing agreements "in the field of wire telephony on land."¹ It also maintained that the radio group had no rights for transmission by wire even to connect stations.²

Westinghouse went ahead building and operating stations in spite of the opposition of the telephone company. It was experiment on short wave transmission with the hope that stations might be connected in this way without the need of Bell or Western Union wires.

Bruce Barton wrote a perceptive article for <u>American</u> Magazine in 1922 on the course radio was taking. In the

¹Gleason L. Archer, <u>Big Business and Radio</u> (New York: The American Historical Company, Inc., 1939), pp. 57-59.

²In the following chapters, the terms "radio group" and "telephone group" will be used frequently. Radio

article he analyzed a typical Sunday evening broadcast from WJZ.

He characterized the program by saying there was music every hour on the hour. At 3:00 P.M. there was a religious service with choir singing, a prayer, and a sermon by a wellknown New York clergyman. A musical interlude followed. The next feature was a talk by a YMCA secretary. Then more music followed. A plea for funds for European relief was the last talk of the afternoon.

In the evening, at 7:00 P.M., Miss Anita Loos, authoress of <u>Gentlemen Prefer Blondes</u>, and screen writer for movie star Douglas Fairbanks, gave a fifteen minute speech on "How to Write a Scenario." A musical selection followed Miss Loos' talk. The feature of the evening was something new in programming. It was the presentation of a theatrical production on the air: Ed Wynn in "The Perfect Fool."¹

Westinghouse also had spectacular success with its first midwest station, KYW in Chicago. Announcements were made well in advance of the opening of the station that performances of the Chicago Opera Company would be broadcast. There were no more than 1,300 radio sets in the city when the announcement was made but by the time the opera season came to an end there were over 20,000 receivers in Chicago, and the demand for sets was not satisfied.

group refers to General Electric, Westinghouse, RCA, United Fruit, and associated companies; telephone group refers to AT&T and associated Bell companies, the Bell Laboratories, Western Electric, and associated research companies.

¹American Magazine, June, 1922, pp. 11-13.

What happened in Chicago was happening all over the country. Radio was becoming a necessity in the home. Radio stations were springing up fast, and dying fast. Public taste in entertainment was beginning to take shape. Performing artists were beginning to think in terms of pay for appearances. ASCAP wanted fees for the use of its copyrighted music on radio. Station equipment was becoming more intricate and costly. The weak stations were dropping out fast, and the giants of the industry were making ready to do battle. Rising costs presented a problem. How could the profits from the sale of radio receivers ever make it worthwhile to be in broadcasting? Would there be a saturation point in radio sales?

Many of the elements which shaped the future course of American broadcasting were already evident in the early Twenties.

As the popularity of radio grew it came in direct competition with the phonograph which was the chief home musical instrument at that time. Slosson found there were more phonographs than radios in the early Twenties, but half the homes had radios. Many homes had radios when there was only kerosene lighting in the house, when there was no refrigerator, and possibly no cupboard for the dishes. In rural areas there were radios when there were no furnaces, often when there was no inside toilet, and in some cases,

even when there was no running water.^{1,2} There is no question radio was popular in America in the early Twenties.

Also, there is no question of the trend of ownership of radio stations. Of the 516 stations operating at the end of 1922, 222 were owned by radio and electrical manufacturers, 72 by educational institutions, and 69 by newspapers. Other categories were small in number.³

As we have noted, the radio group had a good motive for broadcasting in their desire to stimulate the sale of radio receivers, but they were finding it an expensive method of promotion.

We have also noted, the telephone company was concerned with protecting its telephone business from any possible enroachment by radio. The telephone company decided to protect those interests by doing toll broadcasting. They were thinking in telephone terms--thinking of selling time over radio to anyone who might desire it, much as they sold time over the long distance telephone. In line with this thinking, in 1922, they established station WEAF, in New York, to be used for toll broadcasting. This story will be told in a later chapter.

¹Preston W. Slosson, <u>The Great Crusade and After</u>, <u>1919-1928</u>(New York: Macmillan, 1930), pp. 215-217.

²<u>Radio Broadcasting Magazine, May, 1922, p. 33.</u> Radio was a serious competitor of the phonograph business. There were six million phonographs in the country in 1922. The output of phonographs in 1914 was 514,000 (\$15,291,000 in value) and in 1919 the output was 2,226,000(\$91,569,000 in value). The sale of records in 1919 was 106,997,000 with a value of \$44,690,000.

³See Appendix B.

When the telephone company went into toll broadcasting, the rivalry between its interests and those of the radio group became more pronounced. In the meantime, the new RCA had grown rapidly and had begun to change from the international communications company it was at first to a leading sales agent for radio equipment manufactured by its associates. It had also become interested in broadcasting and in direct rivalry with station WEAF.

In the following pages, an account will be given of the growth of RCA from its founding to the time it became an important factor in radio broadcasting.

The Early Growth of RCA

During its first two years, RCA's principal activities consisted of supplying radio apparatus to ships, providing radio service between ships, and between ships and shore. In addition, the company developed a transatlantic communication service. It also sold component parts used by amateurs and experimenters in constructing radio sets.

The company began to sell complete radio receiving sets in 1922. These sets were manufactured by General Electric and Westinghouse under the cross licensing agreements.

RCA was soon the dominant company in transoceanic radio communications. It had six high powered transmitting stations on the East Coast, and one important multiplex receiver at Riverhead, Long Island. These units were all connected by wire with a central station at 64 Broad Street, New York City, which directly controlled all transmitting and receiving.

By 1923, of all the messages sent across the Atlantic, including both cable and radio, RCA transmitted thirty per cent of them. In addition, fifty per cent of the total radio messages sent from the Pacific coast to the Far East, were sent by RCA.¹

A breakdown of the gross sales of RCA at this period revealed the direction of the future growth of the company's business. RCA had the world's largest transoceanic radio communications business, but of RCA's total business that was but a small part. Radio equipment sales by RCA totaled over \$11,000,000 per year (at factory prices, not retail) while the transoceanic business in communications was less than \$3,000,000 and the marine services business was only \$630,000.

A glance at a record of growth in the sales volume of General Electric and Westinghouse products marketed by RCA shows why RCA turned its attention more and more to the broadcasting industry:

Sales of General Electric and Westinghouse radio products by RCA:²

1921	Sales	•	•	•	•	\$ 1,500,000
1922	Sales	•	•	•		12,000,000
1923	Sales	•	•	•	•	23,000,000
1924	Sales	•	•	•	•	50,000,000

¹<u>FTC Report</u> (1924), <u>op. cit.</u>, p. 35.

²Banning, <u>op. cit</u>., p. 281.

The trade practices of the Radio Corporation were strictly protective, and aimed at maintaining a controlling hold on the radio industry. RCA refused to sell or lease apparatus to competitors in the international communications business. Equipment sales to amateurs and experimenters were closely watched. Wholesalers who wanted to handle RCA products had to demonstrate ability to do business and to place a minimum opening order of \$25,000. Dealers for vacuum tubes only were not wanted; the company preferred full line accounts.

The key to competition was the supply of vacuum tubes. Generally RCA did not sell tubes to other manufacturers of radio sets. Many manufacturers made sets and sold them without tubes--leaving the customer to find them for himself. In spite of the great increase in the number of vacuum tubes produced there still were not enough to satisfy the demand.

A government report showed that in 1921 there were 112,500 vacuum tubes manufactured, in 1922 the total was 1,583,021, and in 1923 it was 2,931,262.¹

It was evident by 1923 that sooner or later there would be a struggle between the telephone interests and the radio group for dominance in the radio industry.

Under the cross licensing agreements which began in 1920 it was generally considered that the telephone company had rights to build, sell, and lease transmitting equipment. The telephone company had the rights of wire connections

¹FTC Report, (1924), <u>op. cit</u>, pp. 6-7.

between stations, and between a point of broadcast and the transmitter. The radio group had concerned itself with making and selling receiving equipment.

Each side wanted to get into the field formerly considered belonging to the other. They quarreled with each other. RCA tried to control the sales of receiving apparatus and parts; AT&T tried to control transmitting, particularly transmitting for hire. AT&T maintained that, under its patents, it had the sole right to broadcast forpay; and claimed that all other stations wanting to accept advertising had to have an AT&T license.

Before the end of 1923, there was much trouble in the industry. RCA had been unhappy for some time as the sales agent for sets manufactured by General Electric and Westinghouse. The company found that sharper and more flexible manufacturers were changing and improving set designs faster than its own two suppliers. This meant RCA was not in a good competitive position.

Many questions were raised over the meaning and interpretation of the cross licensing agreements. Did the agreements mean the radio group was confined to the manufacture and sale of receiving sets? Did they mean AT&T had the exclusive rights to make, sell, and lease transmitters except for those the radio group made for their own use? Did they mean that AT&T and its licensees had the sole right to broadcast for hire? What should be done about the request of AT&T that it

be allowed to manufacture a limited number of radio receivers. The reason given for the request was that AT&T scientists needed to develop new receivers in order to keep abreast the advancements in the art and industry.

The disputes between the radio and telephone groups were too complicated to be settled in court, and probably it was not expedient to make their problems and methods public. It was decided to submit the situation to an arbitrator. This action will be discussed in a later chapter.

But the problems and methods did come to the attention of the public. There was fear that the two groups were becoming too strong and that a monopoly might result. A full investigation of the industry and the affairs of the two groups was ordered by the Federal Trade Commission, and was conducted from 1923 to 1928.

In the meantime, RCA was attempting to get into broadcasting. Its first venture was to open a station at the old Marconi plant at Aldene, New Jersey. This station went on the air on a regular schedule, December 14, 1921. A few weeks previous to this date a temporary station had been set up experimentally in Hoboken to broadcast the Dempsey-Carpentier prize fight from Boyle's Thirty Acres in Jersey City. Major J. Andrew White, editor and founder of the <u>Wireless Age magazine</u>, which RCA had recently purchased, re-Ported the fight to 200,000 listeners. Major White was to become almost as well known as a sports commentator in the hext few months as Graham McNamee and Harold Arlin.

RCA operated the Aldene station only a little over two months when it discovered what Westinghouse had earlier: if a station hopes to cover the metropolitan New York area it should do it from New York City. Consequently, as stated, RCA made arrangements with Westinghouse to become an equal partner in the sponsorship of WJZ in its new studio in New York City. At this time the cost of operating the station was about \$700 a week.¹

In the spring of 1923, RCA took over the complete ownership of WJZ and moved the station into an elaborate set of studios in Aeolian Hall. This was called Radio Central. There the radio company operated two stations on different frequencies; WJZ on 455 meters for classical music and serious programs; WJY on 405 meters for jazz and popular entertainment.

¹Archer, <u>op. cit</u>., p. 220.

CHAPTER VIII

THE WEAF EXPERIMENT

The telephone company, in 1921, was trying to determine which way this new marvel, radio, would turn. A year or two before, it seemed the role of radio was to be that of a competitor of the transatlantic cables, but now the public was taking a fancy to the invention as an entertainment medium. Anybody's guess was asgood as the next person's as to how radio would finally develop.

Frank Conrad and some of the others had started broadcasting music regularly. Now it seemed there were thousands of persons who wanted to be able to flick the switch at any time and hear jazz or music of some sort.

A statement made a few years later by President Walter Gifford of AT&T gives some indication of the uncertainty as to what course radio would take:

Nobody knew early in 1921 where radio was really headed. Everything about broadcasting was uncertain. For my part I expected that since it was a form of telephony, and since we were in the business of furnishing wires for telephony, we were sure to be involved in broadcasting somehow. Our first vague idea, as broadcasting appeared, was that perhaps people would expect to be able to pick up a telephone and call some radio station, so that they could give radio talks to other people equipped to listen. It was impossible for a while even to guess what our service would be.¹

¹Banning, <u>op. cit</u>., p. 59.

The telephone company in the first year or two or the decade confined its thinking and radio experimentation along the lines of usage in traditional telephony.

When it was trying to fit radio into telephony, it was receiving requests for the use of telephone lines to link studios to transmitters, and station to station. AT&T stated publicly and often that it had the exclusive right to use telephone wires to pick up remote programs and to hook up station to station. It claimed this right under basic telephone patents. General Electric asked for a telephone wire connection for the special program which marked the opening of its station WGY in Schenectady. AT&T granted the request but expressly stated the permission was for one occasion only. This was already 1922.

The telephone company was evidently feeling its way, moving cautiously without committing itself to an established policy. Instructions to its associated telephone companies stressed that even though it was proper to furnish wire connections for use in radio work it must be for non-commercial broadcasting. The subsidiaries were also told the wire service was not a part of the company's public service activities. It referred to these connections as special circuits. Contracts were made for short periods, terminable on short notice. Furthermore, any requests for circuits by members of the radio group were to be referred to the New York office for consideration.¹

1<u>FTC Report</u> (1924), <u>op. cit.</u>, p. 455.

From the foregoing, it should not be inferred that the telephone company was proceeding thoughtlessly, without investigation or experimentation.

The feasibility of one early suggestion was investigated. It had been suggested that national events could be broadcast over a wide area. For example, Armistice Day ceremonies or the inauguration of a President could be picked up by the Washington radio station and then be sent by a network of telephone wires to all the important centers of the country. At the important centers loudspeakers could be set up so thousands could listen. As yet they were not thinking in terms of linking a vast network of stations by wire, just a network of loudspeakers.

One provision of the suggested plan is interesting. It was said that in working out the plan for the network of cities to be covered, allowance should be made for two or three other long distance lines between the points so there would be no possible interruption of regular telephone service.

A full scale study of the use of long distance telephone networks was ordered by the company. A report was made in mid-December, 1921.¹

The study showed that radio broadcasting was being done principally by amateurs and radio apparatus manufacturers centered predominantly at eight points: Springfield,

¹Banning, <u>op. cit</u>., p. 60.

Massachusetts; Newark, New Jersey; Pittsburgh, Pennsylvania; Detroit, Michigan; Chicago; LosAngeles; San Francisco; and Seattle.

The estimate of the number of receivers was rather vague: from 100,000 to 500,000, with half of them along the East Coast. Broadcasting was being done in a band 200-800 meters. The common wave length was 360.

Significantly, one of the statements in the summation was: ". . . and as yet, no definite regulations or standards have been effected . . . a chaotic condition . . ."¹

The report proposed that the telephone company go into broadcasting in a commercial way, radio for hire, radio for toll. It was estimated that thirty-eight radio stations, each with a radius of 100 miles, if properly placed could furnish reliable service to the country at a reasonable cost. It was stressed this would be a boon to "the rural and outlying sections throughout the middle and far west." It would be necessary to plan to connect "remotes" for each station.

Other excerpts from the report demonstrate future planning in the abstract:

This service would enable the national and local advertisers, industrial institutions of all kinds, and even individuals if they desire, to send forth information and advertising matter audibly to thousands A first consideration is that the material broadcasted . . . be desirable to the receiver so that the demand for the service will be stimulated.

¹<u>Ibid.</u>, p. 67.

. . . Our present plans do not contemplate <u>our</u> providing talent for entertainment . . . we propose to be responsible for the quality of the service in so far as the broadcasting is concerned.¹

The telephone company took a realistic view of the future of broadcasting. Each year it was becoming more expensive to operate a station. Free talent was scarce. Few companies could afford to charge off the expense of a good station to institutional advertising. Radio had to pay its own way. That could be done best by selling time to those who wanted to broadcast, who wanted to furnish programs to please and entertain the growing number of listeners.

AT&T maintained it alone held the right to broadcast for hire. But the company offered to include the right to broadcast for hire with the sale of every one of the transmitters manufactured by its subsidiary, Western Electric, and with every license it issued under its patents. Licensed stations would also be able to purchase speech input equipment needed for picking up programs from remote points. Exception to the regular license fee was made to colleges, churches, and other non-profit organizations.

The prices Western Electric quoted in the spring of 1922 for transmitters were: 100 watt--\$8,500, 500 watt--\$10,500. Extra equipment needed to put the apparatus in operation would make the total cost from \$10,000 to \$15,000. At this time it was estimated the annual operation of these

¹<u>Ibid</u>., p. 67.

transmitters without any program costs would run from 100 per cent to 200 per cent of the initial cost. By April, 1922, Western Electric had sold sixteen transmitting sets and had made quotations on fifty others.¹

The telephone company took the position at this time that the public was being forgotten in the disorganized confusion which characterized radio. In an article by Vice President A. H. Griswold of the company in the <u>Bell</u> <u>Telephone Quarterly</u> a point was made that radio was not intercommunication but a one-way service, generally speaking. Mr. Griswold said that broadcasting at that time was being done by various departments of the government, by some of the manufacturers of radio apparatus, by experimenters, by newspapers, and by amateurs. Therefore, most all of the existing broadcasting stations were being operated in the particular interest of the owners of the stations, while the general public had little or no access to broadcasting service.²

The telephone company was being besieged with requests to sell radio broadcasting equipment, or to provide radio telephone service. The company said if they granted all the requests being made there would be so much confusion on the few frequencies available that real service for any of them would be impossible.

¹<u>Ibid.</u>, p. 75. ²<u>Ibid.</u>, p. 73.

Was the logical conclusion then that someone should furnish a kind of service available to the general public? If so, who was better fitted than the Bell people who had knowledge and experience in the electronics field, who owned the basic patents, and who had background in the favorite public communications system, the telephone?

Mr. Gifford formally requested of the United States Radio Inspector in New York in February, 1922, that a special wave length be specifically assigned to such a public service radio telephone station. Although the Department of Commerce did not go so far, the toll station became a recognized category of stations during the First Radio Conference called by Secretary Hoover that year.¹ The toll station was defined as a public service radio telephone company doing broadcasting as a paid service.

AT&T was now determined to go ahead and establish America's first radio telephone pay station where the broadcasting would be available to anyone desiring to talk to the public. The first station was to be experimental in many ways: a test of the public demand for this sort of thing; a test of the appeal of radio as an advertising medium; a test of local, regional, and national broadcasting. Furthermore, it was another step for the protection of the tremendous holdings of the great telephone empire.

¹See Chapter XIV.

The telephone company's first station was set up in the Long Lines Building, Walker Street, New York City. The antenna wires were strung between two steel towers 100 feet tall atop the twenty-four story building. This made them 500 feet above the sidewalk and high above any neighboring structure. A transmitter of 500 watts power was installed for the station.

The telephone company had requested a wave length of 400 meters which would have avoided any interference to or from other stations. The Commerce Department said it was unable to grant this specific request, but instead assigned the call letters WBAY, and granted the 360 meter wave length which the station was required to share with fifteen others.

Among the fifteen stations there were ten with strong signals. Among them were WJZ, the RCA station, and WOR, the Bamberger station in Newark. Both of these stations were to be serious rivals.

There was some disagreement as to the division of broadcasting time among the stations. WJZ was the most difficult to placate. Finally, a schedule was agreed on. WBAY was allowed to broadcast weekday mornings from 10:00 A.M. to 12:00 Noon, afternoons from 4:30 P.M. to 5:30 P.M., and Thursday evenings from 7:30 to Midnight. The station began operations July 25 with the first evening program scheduled for July 27. This program, however, was not broadcast, because WJZ had a prize fight planned for that night. The big test of an evening broadcast came the following Thursday night, August 3. A three hour program was presented with most of the musical talent furnished by members of the Bell Long Lines Department. There was also a talk on baseball by Frank Graham of the <u>New York Sun</u> and reminiscenses of minstrel days by Harry Armstrong, the composer. At 9:22 P.M. a report was given on the weather conditions of the country as of eight o'clock that night through reports collected by AT&T representatives throughout the country. The station signed off at 10:31 P. M. to the strains of "Home Sweet Home." It was quite an ambitious first evening program.

Harry B. Thayer, president of AT&T at that time, invited a group of friends to him home in New Canaan, Connecticut to listen to this historic program. The station came through badly on his set. Needless to say, Mr. Thayer was chagrined to have this happen in front of his guests.

No report has been made of Mr. Thayer's comments on arriving at the office the next day, but immediate steps were taken to improve the quality of the station's signal. After a few days, on August 16, 1922, the transmitter of another station at the company's West Street laboratory was used. The antenna was more favorably located. Soon the station became one of the favorites in the East, a rival of WJZ in popularity. This new station became known as WEAF.

Profes tells a stor an important In the 3 was a young experiments private and Park home, up was testing of ments with th call for a di Even to a man prohibitive. Then so irect line t Juxedo Park. home. Then the leorge F. Bake director in AI is could hear energe took . Baken's house. Į. Cearly and di So Mr. 1 Staphs a: tally it was a

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Professor James Stokley of Michigan State University tells a story of what lengths WEAF engineers went to please an important company director.

In the early days of the station, Professor Stokley was a young science writer. He became interested in the experiments being carried on by Alfred Lee Loomis in the private and luxuriously-equipped laboratory in his Tuxedo Park home, up the Hudson from New York City. Mr. Loomis was testing chronographs. He wanted to compare his instruments with the Bell laboratory clock crystals. This would call for a direct line from his home to the Bell laboratory. Even to a man of Mr. Loomis' standing this cost would be prohibitive.

Then someone at the Bell laboratory remembered a direct line that ran from the Bell laboratory to exclusive Tuxedo Park. This ran only a few feet from Mr. Loomis' home. Then the story came out. In the early days of WEAF, George F. Baker, the well-known New York financier and a director in AT&T wanted a radio installed in his house so he could hear WEAF, the company's station. This time the engineers took no chances. They ran a special line to Mr. Baker's house. To his great delight he received WEAF clearly and distinctly.

So Mr. Loomis used the direct line to test his chronographs against the Bell clock crystals. Scientifically it was a success. The results were published by

-5 Rolesson E. In Sept a new classi: > stations coul ani WEAF were WEAY WE tai a paying leginning that ting aspects of forward at fin tent for the 1 programs were stillity to f took over, 1t Appoinding to a Was good, the With listener: Initial station as \$5. i minites in En It was • 1 o Nosi Sta Hisei to \$10 A. rea Ebannen s expert Professor E. W. Brown of Yale.¹

In September, 1922, the Department of Commerce created a new classification of stations called Class B. These stations could operate on the 400 meter wave length. WBAY and WEAF were included in the category.

WBAY was on the air only about three weeks and never had a paying customer. It was apparent from the very beginning that AT&T could not expect to ignore the programming aspects of the business. If clients did not crowd forward at first to purchase time and to supply entertainment for the listeners, then AT&T had to do it. Sustaining programs were a necessity. Since it was a company responsibility to furnish programming until the time that sponsors took over, it was decided to do as good a job as possible. According to contemporary reports, WEAF program management was good, the signal was good, and the station was popular with listeners.²

Initially, WBAY had announced rates for time on the station as \$50 for 15 minutes of evening time, and \$40 for 15 minutes in the after noon. No one requested time on the air. It was then thought the rates might be too low, connoting lack of value in radio advertising. The rates were raised to \$100 for 10 minutes or \$400 for an hour in the

¹Alfred Lee Loomis, letter to writer, March 11, 1962. ²Banning's book gives the best and fullest account of AT&T's experimentation in broadcasting at station WEAF.

į evening; and 1 afternoon. The fi: Ņ jueensboro C. promoting its spartment how gram consisti ievelopment w exemplified. Easthorne was poration boug The firm is sa thousand dolla a ks. The Tide Company also : during those e inal income (The grou November, E. E. Macy Co. acturer with ł Marization, There we Ner Were dep: a studi evening; and \$50 for 10 minutes or \$200 for an hour in the afternoon.

The first client to broadcast over WEAF was the Queensboro Corporation, a real estate firm interested in promoting its Jackson Heights tenant-owned Hawthorne Court apartment house. On August 28, 1922 it presented a program consisting of a fifteen minute talk lauding the development where the spirit of Hawthorne was so well exemplified. One suspects the copywriter did not know that Hawthorne was quite a gloomy fellow. The Queensboro Corporation bought time for a short series of these talks. The firm is said to have attributed sales of several thousand dollars to the publicity gained through the radio talks.

The Tidewater Oil Company and the American Express Company also made experimental announcements over WEAF during those early days, but after two months operation the total income of the station was only \$550.

The growth of the business was slow but progressive. In November, 1922, the radio station had seven clients: R. H. Macy Co., the department store, a dentifrice manufacturer with a talk on the care of the teeth, a political organization, and a motion picture producer.

There were thirteen sponsors in December. Three of them were department stores. One of them, Gimbel Brothers, built a studio on the upper floor of the store and

; connected to WI Į E. Bankin adve circle talk on privilege. 5 The stat: February, 1923 was allowed to meeded; from 4: 10:30 P.M. Mund ':30 P. M. to € as desired. In Februa sponsoring prog The manage for good program With WJZ and WCH of the area, and at adventising t listeners talk a Readed and "endi's "Aida" w • Misstridge Armo t Criay night, No " variety shows stry was under the ing the Capitol connected to WEAF by wire. Another client was the William H. Rankin advertising agency. One of its staff gave a ten minute talk on advertising and the firm paid \$100 for the privilege.

The station received a revision of time schedule in February, 1923, which was greatly to its benefit. WEAF was allowed to broadcast 10:00 A.M. to 2:00 P.M., as needed; from 4:30 P.M. to 5:30 P.M. daily; 7:30 P.M. to 10:30 P.M. Monday, Wednesday, Thursday, and Saturday; 7:30 P. M. to 8:00 P. M. Tuesday and Friday; and Sunday as desired.

In February there were fourteen commercial firms sponsoring programs on WEAF.

The management of WEAF early recognized the need for good programming if it were to compete successfully with WJZ and WOR and other radio stations for the audience of the area, and if it were to make itself attractive as an advertising medium. Programming which would make listeners talk about the show they had heard was what WEAF needed and obtained. On Armistice night, 1922, Verdi's "Aida" was presented by means of remote pickup from Kingsbridge Armory by using an intermediate amplifier. On Sunday night, November 19, the first of the famous series of variety shows, Roxy and His Gang, was broadcast. This show was under the direction of S. L. Rothafel and came from the Capitol Theater in New York. In April, 1923, the

Í first act of a ì the stage of th 1 sales of phones 5 of the show inc WEAF was or for attentio of the technica during the big short range tes Some of t grazs. For exa football game 1 control and was streets of New Y Were covered by of Graham McName White of WJZ bea erents. The beginn REF and WEAC, a " that city, oc -Wew York and ł The two stations . Ne distance te W,000 persons ^{Ello} solcists, first act of a Broadway musical comedy was broadcast from the stage of the Cameo Theater. After the broadcast, the sales of phonograph records and sheet music of the songs of the show increased greatly.

WEAF was trying many new ideas, not only for novelty, or for attention value, but also to develop the art. Some of the technical innovations which had their final tests during the big election campaign of 1924 had their first short range tests in 1922.

Some of these experiments were tried with sports programs. For example, the Princeton-University of Chicago football game in Chicago was broadcast by WEAF by remote control and was also sent out over loud speakers in the streets of New York City. Thereafter, major sports events were covered by WEAF and often by its rival, WJZ. The names of Graham McNamee and Phillips Carlin of WEAF, and J. Andrew White of WJZ became famous in 1923 for reporting sports events.

The beginnings of the network idea came in 1923. WEAF and WNAC, a Boston station owned by the Shepard Stores of that city, cooperated in a three hour program originating in New York and broadcast simultaneously over the stations. The two-stations were connected by a special circuit of long distance telephone wire. It was estimated that over 100,000 persons listened to orchestra music, saxophone and cello soloists, to vocalists, and to a bird mimic. In a

£ İ ł ł few short months i programs of reco ierophone. The first > through a hobby Green, the son Breen, construct Massachusetts. to develop good te would like to Was more natural than to arrange tents were made, Wire and carried New York station A few wee; station WGY, Sel Etsburgh, and Coadcast. The Rectric Light P Moran originat • tos WEAP and by ł owew York by 3 tistice was a dr ^{lasts} which came President Stry to the . few short months radio fare had progressed a long way from programs of records played on a Victrola placed before the microphone.

The first "permanent" hookup of stations came about through a hobby of a wealthy man. Colonel Edward H. R. Green, the son and heir of the fabulously wealthy Hetty Green, constructed a private radio station at Round Hill, Massachusetts. Colonel Green soon found it quite a chore to develop good programming for his station, WMAF. He felt he would like to present talent such as WEAF did. Nothing was more natural for a man of his means and temperament than to arrange to hire WEAF programming. Financial arrangements were made, and WMAF was linked to WEAF by telephone wire and carried some of the programs originating at the New York station. These programs began on July 1, 1923.

A few weeks earlier, WEAF and the General Electric station WGY, Schenectady, and the Westinghouse stations KDKA, Pittsburgh, and KYW, Chicago were linked in a trial chain broadcast. The occasion was the meeting of the National Electric Light Association at Carnegie Hall, New York. A program originating at Carnegie Hall was broadcast by remote from WEAF and by the other three stations which were linked to New York by long distance telephone wires. This in essence was a dress rehearsal for the coast-to-coast broadcasts which came during the campaign of 1924.

President Warren G. Harding began a trip across the country to the West Coast and on to Alaska, in June, 1923.
** 1 ì This may have be mutbles and ruma mi party; and : Ņ mination and a situation for th of the public a President undou casts might giv The Presi a large crowd 1 We microphones ty long distance local station K building. A st before the spee people would be as a large numb On the da stike in Kansas Jay G. Ha tes commented . ţ. - 32 -At least made in ci-casting pla spread the every rad-iterally

This may have been for two reasons: to counteract the rumbles and rumors of graft and fraud in his administration and party; and to do a little advance campaigning for renomination and re-election in 1924. It was a convenient situation for the industry to improve the radio art because of the public attention given the trip and because the President undoubtedly welcomed the publicity radio broadcasts might give him.

The President spoke in St. Louis on the 21st before a large crowd in the auditorium of the Colosseum. He had two microphones in front of him. One was connected to WEAF by long distance telephone, the other was connected to the local station KSD on the roof of the <u>St. Louis Post Dispatch</u> building. A story published in the <u>Post Dispatch</u> the day before the speech was made said it was estimated two million people would be able to hear the New York station as well as a large number who could listen to KSD.

On the day following the St. Louis speech, Harding spoke in Kansas City. This was broadcast by WEAF also.

Jay G. Hayden, Washington correspondent of the <u>Detroit</u> <u>News</u> commented on the President's trip a few days before it began:

At least nine of the President's speeches will be made in cities containing first-class radio broadcasting plants, and arrangements are being made to spread these speeches by a series of relays to every radio receiving instrument in the country. Literally it will be made possible for ten million

ſ 1 or more to he expound ł Presider San Francisco ţ Maska. This v three to five a Francisco), WCA mi WCAP, the n 3. 3. The Presi: He became ill be speech, and died The teleph as its second st selected to sign: Company, a Bell a that programs wi statios when the . The station, W Marist had the h lake Detroi Her of Lune 6, Her of Lu . ţ

or more to hear the voice of the chief executive as he expounds his policies.¹

President Harding planned to make a major speech in San Francisco July 31, a few days after his return from Alaska. This was to be broadcast by radio to an estimated three to five million listeners through WEAF, KPO (San Francisco), WOAW (Omaha), WNAQ (Chicago), WMAF (Round Hill), and WCAP, the new telephone company station in Washington, D. C.

The President's trip was never completed as planned. He became ill before the date set for the San Francisco speech, and died in a hotel in that city August 2, 1923.

The telephone company opened WCAP, Washington, D. C., as its second station, July 4, 1923. The call letters were selected to signify the Chesapeake and Potomac Telephone Company, a Bell affiliate. In the beginning, there were joint programs with WEAF because WCAP had not completed its studios when the station went on the air. At the opening of the station, Winifred Barr, the popular WEAF studio pianist had the honor of performing first.

¹<u>The Detroit News</u>, June 9, 1923. An issue of the same paper of June 6, 1923 printed a schedule of Harding's speeches as: St. Louis, June 21; Kansas City, June 22; Hutchinson, Kansas, June 23; Denver, June 25; Cheyenne, June 25; Salt Lake City, June 26; Pocatello, June 28; Idaho Falls, Butte, and Helena, June 28; Spokane, July 2; Meachem, Oregon, July 3; Portland, July 4; Tacoma, July 5; and on his return from Alaska the schedule called for him to speak in Vancouver, July 26; Seattle, July 27; San Francisco, July 31; Los Angeles, August 1; and San Diego, August 4.

Ţ Ì WJAR, a 1 WEAF in Octob ł replaced Color Now WEA \$ arrangement: cast of this a Woodrow Wilson 923, on the e first appearar the alling sta same three sta ing Washingto The tele interest to te ani early 1924 these made dur: 1 tions and of th testion of 192 When Pres 1923 North 1923 Mildge. Mr. • Hime he retir ţ : Lost persons President Dialoast Over ; tis voice WJAR, a Providence station was linked by land wire to WEAF in October, 1923, to cover New England. This station replaced Colonel Green's WMAF.

Now WEAF had a three station "permanent" network arrangement: WEAF--WCAP--WJAR. The first notable broadcast of this network was of a speech by former President Woodrow Wilson from his home in Washington, November 10, 1923, on the eve of Armistice Day. This was Mr. Wilson's first appearance on radio, and his last public speech, for the ailing stateman died less than three months later. The same three station network broadcast his funeral services from Washington, February 6, 1924.

The telephone company was using events of public interest to test chain broadcasting. The tests in 1923 and early 1924 were significant but were minor compared to those made during the broadcasts of the political conventions and of the major campaign speeches of the Presidential election of 1924.

When President Warren G. Harding died in San Francisco in August, 1923, he was succeeded by Vice President Calvin Coolidge. Mr. Coolidge made frequent use of the radio. Before he retired from office in 1929, his voice was familiar to most persons within reach of radio in the United States.

President Coolidge's first Message to Congress was broadcast over radio. At this time it was said more persons heard his voice that day than had ever listened to an

4 minidual a ş i "permanent" linked throu Southwestern > XSD, the St. <u>City Star</u> sta station. Four da this from the Many of Terchandising 1923. Many t could now be sets were imp strong's supe ٠ home receiver tour-long mus Mary started Company spons: Kess Boys." usical progra But the first ÷. bow and His ang 28, as Larning Starning Start 22, 192 Start 22, 192 Start 29, 19 individual at any time before in history. AT&T used the "permanent" hookup of WEAF--WCAP--WJAR plus three stations linked through the facilities of their associate company, Southwestern Bell Telephone Company. The new stations were: KSD, the <u>St. Louis Post Dispatch</u> station; WDAF, the <u>Kansas</u> <u>City Star</u> station; and WFAA, the <u>Dallas News and Journal</u> station.

Four days later the President made another speech, this from the White House and over the three station network.

Many changes in radio technique, in programming, in merchandising, and in advertising sponsorship came during 1923. Many thousands of listeners were added because radios could now be bought on installment purchase plans. Radio sets were improved with more selective tuning. Major Armstrong's superheterodyne principle was being adapted to home receivers. Gimbel's Department store initiated an hour-long musical program over WEAF, American Tobacco Company started the "Lucky Strike Show" and the Happiness Candy Company sponsored Billy Jones and Ernie Hare as the "Happiness Boys." Walter Damrosch began his famous lecture-recital musical programs, and Hoxie Fairchild of Columbia University gave the first of a series of talks on English Literature. "Roxy and His Gang" had been a regular feature since January 28, as previously mentioned.¹

¹Banning, <u>op. cit.</u>, p. 109. Gimbel started March 15, 1923; the Lucky Strike Hour, July 14, 1923; Jones and Hare, August 22, 1923; Fairchild, July 17, 1923; and Damrosch, October 29, 1923.

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WEAF, with Graham McNamee at the microphone, covered the Willard-Firpo fight and the World Series. WJZ was not idle. It programmed good features, and covered the major sports events. Although WJZ did not accept paid sponsorships because of possible patent infringement, it did offer free time to anyone who could provide a high quality program.

It should be remembered that advertising sponsorship over WEAF and its affiliates and licensees was called "indirect" advertising. This was the type approved by the National Radio Conferences called by Secretary Hoover. "Indirect" advertising consisted of mention of name of the company, name of the product and possibly the company slogan, but no prices, no extravagant claims--nothing much more than an identification of the sponsor and product with the program.

WEAF was soon making money in spite of the handicaps of operating an untested advertising medium with only indirect copy allowed. William Harkness, the first regular manager of the station, said that by early 1924 expenditures and income balanced:

Eventually we cleared all operating costs, the cost of moving the studios, a new 5,000 watt transformer, network wire charges and music rights and recovered the entire plant investment and were making a very substantial profit by the time the station was sold to RCA [1926].¹

Much of the enthusiasm which made WEAF grow and prosper was engendered by the first sales manager of the

William Harkness in an interview recorded in the <u>Oral History Collection</u>, Columbia University, pp. 64-65.

station, George F. McClelland. Phillips Carlin, the announcer who shared duties and popularity with McNamee at WEAF, said of McClelland:

He was a great salesman and very progressive from a commercial standpoint. I think he had a lot to do with getting broadcasting on a commercial basis. I think his background had been in the sales field. He had a salesman's personality, and a terrific confidence in himself and in the things he was talking about and he had the ability that usually makes a good salesman. He picked up the feel of the radio business and projected ahead in his thinking. I think the combination of him with Aylesworth later probably had more to do with the growth of commercial broadcasting than from any two men in the country.¹

Graham McNamee, the most famous of the announcers of the middle and late Twenties, wrote in his reminiscences that even in the early days WEAF made a definite effort to sell time on the air and maintained a sales staff to do it. He said about half the programs were sustaining (furnished by and at the expense of WEAF) and half were commercial (paid for by outsiders). He said:

It is easy to distinguish between them, of course, for when a commercial program is rendered, we always announce that it is given by such and such a firm and also tell the name and brand of its product, working in, perhaps the publicity slogan, both at the beginning and end of the hour, and occasionally between numbers. Further than this we do not go. We do not, for instance, broadcast sales or price reductions. What a client secures when he buys this "time on the air" is good will. He gains a fine general publicity through having his name and that of his commodity broadcast to millions of listening people; and if his name is linked up with a superior program, entertainment that universally pleases, the publicity is of the

¹Phillips Carlin in an interview recorded in the <u>Oral</u> <u>History Collection</u>, Columbia University. Aylesworth was the first president of National Broadcasting Company which was formed in 1926 and shortly afterward purchased WEAF.



most profitable sort, though it cannot be immediately reckoned in the concrete terms of sales.¹

The most influential of the early programs in developing the pattern of variety shows and in advocating network broadcasting as an advantage to the advertiser was the "Eveready Hour" sponsored by National Carbon Company.

This program was originated by the advertising agency, N. W. Ayer and Son. The agency saw a bright future for radio even before many people owned radio receivers or before stations did much program planning. National Carbon signed a contract with WEAF and the "Eveready Hour" started on a long series of 377 shows. The "Hour" on Tuesday nights became a bright spot on the radio log.

The first Eveready program was broadcast from WEAF, December 4, 1923. The programs which followed in brilliant succession were varied enough to hold the interest of large audiences. Classical music programs were alternated with string quartets, and minstrel shows, and one act plays performed by Broadway casts. Edwin Markham the poet, Vaughn de Leath, the "Original Radio Girl," Wendell Hall, the comedian, Nat Shilkret's orchestra--they were all featured on the Eveready Hour. There were many other famous persons whose names we remember today who appeared on the show during those early years. Among them were Eddie Cantor, John Drew, Julia Marlowe, D. W. Griffith, "Trader Horn," Irvin S. Cobb, Otis Skinner, and Commander Byrd.

¹Graham McNamee, <u>You're On the Air</u> (New York: Harper and Brothers, 1926), pp. 97-98.



It was claimed that National Carbon Company suggested to WEAF that a network of stations was needed to broadcast the Eveready Hour to areas beyond the local coverage of WEAF.

This action was described in a booklet, "The Eveready Book of Radio Stars" which the National Carbon Company published about 1930 for distribution to radio listeners:

Soon the territory reached by WEAF was too limited for the needs of the Eveready Hour. Traveling bands of Eveready artists toured the country, producing local Eveready programs from numerous stations. Wendell Hall, with his "It ain't goin' to rain no mo'" was a star member of the troupe. Finally the sponsor of the Eveready Hour persuaded the American Telephone and Telegraph Company, then owners of WEAF, to arrange a hookup of neighboring stations by land wire. And chain broadcasting was born! The first of all chain broadcasts was an Eveready program.

The first chain hookup to broadcast the Eveready Hour was made October 6, 1924. This was over the "permanent" hookup of WEAF, WJAR, and WCAP. This commercial chain broadcast came after much chain political broadcasting had given the Bell engineers a good background of experience.

Although commercial network broadcasting did not begin until the fall of 1924, WEAF had built up a sizable business in local advertising even in 1923. The record for that year showed a total of 250 customers and a schedule with practically all the air time for Thursday, Friday, and Saturday evenings sold.¹

¹Banning, <u>op. cit</u>., p. 154.

CHAPTER IX

THE RADIO ELECTION: CANDIDATES AND CONDITIONS

The election of 1924 has sometimes been called "the radio election" because it was the first Presidential campaign in which radio was used. Aside from this note of distinction, the election has usually been dismissed as unimportant, preordained, cut-and-dried, uninteresting, and without significant political issues.

Calvin Coolidge, the Republican incumbent and nominee, has been caricatured as the silent, taciturn (everyone used that word to describe Coolidge) Yankee who had a keen political sense and knew how to keep quiet and sit tight. This was probably the truth but not necessarily the whole truth.

Charles G. Dawes, the Republican candidate for Vice President comes out of the Twenties with the image of a smart banker who could set up a national budget, who put the German financial house in order, who liked to smoke his underslung pipe, and whose words were direct, to the point, and punctuated with frequent epithets of "Hell and Maria." This also was not necessarily the whole truth.

The Democratic candidate was John W. Davis, and he has emerged from the period as an urbane Wall Street lawyer,



handsome, and impeccably dressed, who talked well and campaigned energetically but fruitlessly. Charles Bryan, his running mate, was over-shadowed by his more famous brother the well-known orator, William Jennings Bryan. Again, the stereotypes are not necessarily true reproductions.

The election of 1924 was one of the few threecandidate races in modern times for the Presidency. Robert M. LaFollette was the colorful third candidate whose picture, so characteristic in the fighting pose reminiscent of Billy Sunday, emerges as the champion of the people against monopoly and special privilege. Senator Burton Wheeler of Montana, the man who pulled the walls down on Attorney General Harry Daugherty was Vice Presidential candidate with LaFollette. Wheeler said he could not support the candidate of his regular party (Democratic) when that man was the attorney for J. P. Morgan and Company.

What we did not realize as we approached the election in the mid-Twenties was what a state of transition we were really in. Our perspective was faulty and misleading. America could not see what was happening or was unwilling to face up to it.

Someone has said the Twenties were a decade of paradoxes. As a people, we were conservative yet we were reckless. We were Puritanical yet we were immoral. We wanted Harding's "normalcy" and the "good old days" yet we were rushing breathlessly into the future. We wanted



to emancipate women yet retain the double standard. There was strong sentiment for prohibition yet the most flagrant public acceptance of bootlegging and violation of the Volstead Act.¹

We went to war in 1917 to save the world for democracy. We talked of liberty, democracy, the self-determination of peoples yet to a great extent we were religious and racial bigots. Millions of our men dressed in bed sheets, attended rallies in dark, secluded places, burned "firey crosses" and vowed to save white supremacy and white American womanhood. We said we would rescue the country from the clutches of the Pope and the Roman Catholic hierarchy, and from the toils of the Wall Street Jews. All this was pledged with great mumbo-jumbo in the mystic conclaves of the Ku Klux Klan. The great wrath whipped up against the Hun and never fully expelled during the war was sated somehow afterwards in a noble hate against the "Micks, the Kikes, and the Niggers."

While the world still cheered Woodrow Wilson's highminded resolves to bring a just and lasting peace to the world after the Great War, a Red Scare shook America and made men act with emotion and without reason. Attorney General A. Mitchell Palmer, the Fighting Quaker (a paradox in itself) rose to great heights in his crusade to free America of the Communist influence he believed was infiltrating from the newly-born Red Russia.

¹Frederick Lewis Allen, <u>Only Yesterday</u> (New York: Blue Ribbon Books, 1931), is a very good informal history of this colorful period.

To Mr. Palmer, anarchists seemed to be lurking behind every bush. No question, there really was violence abroad in the land. Several bombs had been sent through the mail. One burst and severely mutilated the servant of a southern Senator. Bombs were tossed on the porches of prominent people. In fact, one demolished the front of Mr. Palmer's home in Washington.¹

Woodrow Wilson, the hope of liberal America, lay stricken and paralyzed in the White House while this violence shocked the land, but Attorney General Palmer rose and struck a mighty blow against Communism. He had his agents all overAmerica move with great stealth in one grand series of simultaneous raids on New Year's Day, 1920. Over 6,000 persons, Communists in reality or by association, were caught in Palmer's net. The Attorney General believed these persons to be the core of the Communist effort in America. He said they should be jailed, tried, and deported. Jailed they were, but few were deported. Few were proved dangerous to the country. More serious was the method by which American citizens were held in jail without charge or bail.

Although Palmer's net caught few dangerous characters, the nation seemed to be impressed with the dangers of foreign political philosophies. It was thinking in this vein which made the New York State Assembly refuse to seat

¹Ibid., p. 49.

five newly elected Socialist members in 1920. Democratic Governor Al Smith, former Republican Governor Charles E. Hughes, and Republican Theodore Roosevelt, Jr. all protested, but the Lusk Committee of the Assembly was successful in bringing about the expulsion of the members because they were Socialists. Other attempts were made by the legislature to pass laws to limit the freedom of speech but Governor Smith was able to make his vetoes stand.¹

The fear that Bolshevism might spread from Russia to the United States gradually subsided in the early years of the decade of the Twenties. Attorney General Palmer cried long and loud in warning about an attempt to be made by the radicals to paralyze the business and order of the world by calling a general strike and letting loose a flood of violence on May Day, 1920. The day came and passed without any unseemly disorder. With the peaceful passing went Mr. Palmer's hopes of being drafted for the Presidency, and went the nation's fear of "bushy-bearded" Russians.

So far had the fear abated that when suspected anarchist-inspired violence did occur with frightening loss of life, the nation, after temporary shock, recovered quickly, and again went about the prosaic business of buying and selling, living and dying. The violence was a bomb explosion in Wall Street opposite J. P. Morgan and Company shortly before noon, September 16, 1920. Thirty people were killed

¹Norman Hapgood and Henry Moskowitz, <u>Up From the City</u> <u>Streets</u> (New York: Grosset and Dunlap, 1927),pp. 192ff.

and hundreds injured by the blast which apparently came from a horse-drawn, closed wagon which had been left standing on this street in the midst of the financial district.

As Allen said, "The victims of the explosion were not the financial powers of the country, but bank clerks, broker's men, Wall Street runners."¹ The little people, who were to gain by the destruction of the grasping money power, according to anarchist thinking, were destroyed instead.

Reaction in the Twenties was not only against Communism, but against labor also. The feeling was not just onesided, with the public feeling labor was getting out of hand, there also was strong feeling on the part of labor against management. Strikes swept the country, and lockouts were just as vicious. A national figure emerged. Calvin Coolidge came into the national limelight more for his terse statement during a Boston police strike than for his action as governor of the state in ending it.

When Coolidge moved into action to end the strike he sent a terse message to Samuel Gompers, president of the American Federation of Labor, and, at that time, labor's most powerful figure. Coolidge said, "There is no right to strike against the public safety by anyone, anytime, anywhere."²

²William Allen White, <u>A Puritan In Babylon</u> (New York: Macmillan Co., 1938), p. 166.

¹<u>Ibid</u>., p. 73.

Coolidge had waited until a strike of the policemen had been called, until rioting crowds broke into stores, until property was stolen or destroyed, until sympathy strikes and even a general strike seemed imminent, and then called the state militia into action. His sense of timing was superb for political expediency. He became famous. There was little opposition a few months later when his name was presented at the 1929 Republican Convention for nomination for Vice President of the United States.

The paradox of the Twenties was also present in the political sphere. The great liberal surge which swept the idealistic Woodrow Wilson into the Presidency in 1912, reelected him in 1916, and stood solidly behind him during World War I, ebbed away in the frustrating days of postwar adjustment and peacemaking. The great inspirational leader collapsed as he went to the people in an effort to convince them of the need of American participation in the League of Nations.

Once he was the magnificent hope of the world, now he was a broken man unable to rise above the implacable resistance of Senator Henry Cabot Lodge and the ennui of the people.

The selection of Warren Gamaliel Harding and his "normalcy" and Calvin Coolidge and his Yankee conservatism was a natural reaction to the heady idealism of Wilson and the disillusionment of a war fought to save the world for democracy. The paradoxical situation also applied to the literature and arts of the Twenties. In a decade marked with violent attempts to control thought, to stamp out the Red specter, and to restrict labor, literature and the theater enjoyed one of the golden periods of our history. There was a great wealth of artistic talent in our authors and playrights during this period of extremes and paradoxes in the years after World War I.

A list of the great literary names of the decade is correlative with many of the all-time American literary greats. Ernest Hemingway, Sinclair Lewis, F. Scott Fitzgerald, William Faulkner, Thomas Wolfe, I dare say, will always be included in anthologies of our great novelists. The names of Eugene O'Neil and Maxwell Anderson will always be included in the history of the American theater. A list of the great poets of the decade is impressively long: Robert Frost, T. S. Eliot, Ezra Pound, Vachel Lindsay, Robinson Jeffers, Edna St. Vincent Millay, and Amy Lowell.

The writer does not wish to give the impression that Americans of the decade of the Twenties were paradoxical about most facets of their lives while they were united in their taste for literature and the stage. For the most part, they were as pluralistic in taste for these art forms as they were in opinions on morals and politics. The only author listed among the great ones of the decade who was widely read in the Twenties was Sinclair Lewis. His Main

<u>Street</u> (1920), <u>Babbitt</u> (1922), and <u>Elmer Gantry</u> (1927) made what Frank Luther Mott called the "Better Sellers" List, those books which sold just under a million copies.¹

Mott's "Best Sellers" list (<u>over</u> a million copies) makes a very diverse list in subject and taste in the Twenties as you might expect from this unusual time when people were straining to prepare for the future while attempting to cling to the past. The year 1920 had two "Best Sellers," one was a thriller, <u>The Great Impersonation</u>, and the other was the miracle of the publishing world, H. G. Wells' rather dull Outline of History.

The other best sellers listed by Mott were: 1921--Edith M. Hull, <u>The Sheik</u>. 1924--P. G. Wodehouse, <u>Jeeves</u>. 1926--Will Durant, <u>The Story of Philosophy</u>. 1929--Lloyd C. Douglas, <u>The Magnificent Obsession</u>. 1929--Robert C. Ripley, Believe It or Not.

Note there is no Hemingway, Lewis, Wolfe, or Faulkner listed. The list does not contain all the names of books and authors who enjoyed great popularity and readership. Tarzan stories were popular. Earl Derr Biggers was writing Charlie Chan stories which were made into movies that came back to the late-late television shows a generation later. Dashiel Hammett, author of the Thin Man series, reached popularity in the Twenties; Remarque's <u>All Quiet On the</u>

¹Frank Luther Mott, <u>Golden Multitudes</u> (New York: Macmillan, 1947), see Appendix.



Western Front sold in great numbers late in the period.

Durant and Wells were not the only popular non-fiction writers, for Abbe Dimnet's <u>The Art of Thinking</u>, Heinrich Van Loon's <u>The Story of Mankind</u>, J. H. Robinson's <u>The Mind in</u> <u>the Making</u>, Giovanni Papini's <u>The Life of Christ</u>, and Bruce Barton's modern look at Christ, <u>The Man Nobody Knows</u> were all "better sellers."

The books of F. Scott Fitzgerald (who today is thought of as having spoken for the "flaming youth" of the Twenties) were not "best sellers" or "better sellers," although they did sell well enough to support the author in a life in which he was frenetically in search of something just beyond his fingertips.

The stereotype of youth of the Twenties so often portrayed may come from study of Fitzgerald, and <u>College Humor</u>, Percy Marks' <u>Plastic Age</u>, and Fabian's <u>Flaming Youth</u>. The image of a girl in a short-skirted, hipless dress, topped by a cloche hat covering a bobbed head, and decorated with a long string of beads which wildly flapped left and right as she per petually gyrated in a "Charleston" is certainly a caricature of the age.

These changing years of the Twenties were the years of radio's mushroom growth, the years radio changed from a home-made novelty to multi-million dollar big business.

While radio was expanding other changes were taking place. The old days, "The Good Years" as Walter Lord calls

them, the years between the turn of the century and the Great War of 1914 seem so stable, peaceful, and settled when one looks back at them. No wonder "normalcy," the word Harding coined, had such a nostalgic appeal to those who could remember the early years.

But the Great War cracked the world open. Youth went on the march. Henry Ford put America on wheels. Youth began to make use of the auto for illegal drinking from hip flasks in spite of the Volstead Act. "Necking" and "petting" and "rumble seat" became part of the American vocabulary and mores.

America changed in other ways in those years when radio was an infant. America became an urban nation. The United States Census showed that in 1920 for the first time there was a larger percentage of people living in towns and cities of a population of 2,500 or more than there were in smaller towns and rural areas.¹ Young people moved from the farms and small towns to the cities for better employment opportunities during the war, and the migrations continued after the war.

There was a certain adventure and excitement and anonymity about the city. The opportunities of making money in the big industrial plants, in the offices and stores, were so much greater than back home. The rural moral-overseeing

¹New York Times, June 16, 1925, gave the estimated population of the United States as of January 1, 1924 as 112,828,000. The U. S. census for 1920 was 105,710,620; for 1930 it was 122,775,046, according to the <u>World Almanac</u>, 1960, p. 263.

was lost in the crowds of the city. Young people could "live their own lives" and enjoy a new freedom of action.

Let us pick up one issue of the <u>New York Times</u> in the week before the Presidential election of 1924 and see the great array of film and stage stars offered for the public's entertainment. Many of the names are familiar even today.¹

"Abie's Irish Rose" was in its third year on Broadway. "What Price Glory" was at the Plymouth Theater, "Rose Marie" at the Imperial, and the "Greenwich Village Follies" at the Schubert. Pavlova was appearing in a farewell tour; Jeritza, Chaliapin, and Martinelli were all singing at the Metropolitan Opera House. Will Rogers presented a new monolog each night at the "Ziegfield Follies," while Eddie Cantor starred in "Kid Boots" and the Marx Brothers in "I'll Say She Is." Ed Wynn, the Perfect Fool, appeared in "The Grab Bag."

Concerts by John McCormack, Reinald Werrenrath, Heifitz, Hoffmann, Elman, and Spalding were presented at Carnegie Hall.

Jeanne Eagel was in the ninety-second week of "Rain" and Ethel Barrymore was playing the leading role in "The Second Mrs. Tangueray." Marilyn Miller was advertised in the title role of "Peter Pan." Joseph Schildkraut was at the Morosco Theater in "Firebrand."

The choice of entertainment seemed endless. If one wanted the spectacular, there was still time to see Max

¹New York Times, November 1, 1924, p. 10.

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Reinhardt's "The Miracle" then in its last two weeks at the Century. If the "Follies" did not satisfy there was George White's "Scandals" or Earl Carroll's "Vanities." B. F. Keith offered vaudeville at the Hippodrome and Tex Austin was presenting a rodeo at the old Madison Square Garden. For those who wanted more risque entertainment, Jimmie Cooper's "Revue" was playing at the Columbia Burlesk.

The movie theaters offered a wide selection also. Among those appearing on the screens were many movie stars still remembered today:

> Gloria Swanson in "Her Love Story" Nazimova and Milton Sills in "Madonna of the Streets" May McAvoy in "Tarnish" Richard Dix in "Manhattan" J. Walter Kerrigan in "Captain Blood" Marion Davies in "Janice Meredith" Harold Lloyd in "Hot Water" Mary Pickford in "Dorothy Vernon of Hadden Heights" Agnes Ayres in "Worldly Goods"

There was also a Hal Roach comedy, "The Baltimore Orioles," playing; and Jack Dempsey was appearing in person on the stage of the State Theater.

The movies, the stage, the Sunday Supplement, Prohibition, the Great War, books, magazines, the population shift to the city, industrialization, the age of electricity--each one can be shown to have had a vast influence on the thinking,

ŕ m the customs, tanging years o milo seemed to > had been but a h very few transmi receivers could stations in the In many w tainly there ha since the gover tut in 1924 the Was demonstrate conventions and ati radio group tection of stat proved practica of the country leobnical proble Korks could now teckups. It was nat . serve as ļ. The radio actions offered te country with The first We was schedul on the customs, and on the mores during the paradoxical and changing years of the Twenties. But of all the influences radio seemed to be the most dramatic in effect. Where there had been but a handful of home radio receiving sets and a very few transmitting stations in 1920, by 1924 the receivers could be counted in the millions and the sending stations in the hundreds.

In many ways 1924 was the year radio took shape. Certainly there had been developments in technique every year since the government lifted the wartime freeze on stations, but in 1924 the practicability of coast-to-coast broadcasting was demonstrated not once but several times. The political conventions and campaigns of 1924 afforded the telephone and radio groups opportunity to experiment with interconnection of stations by land wires and short wave. It was proved practicable to broadcast a program from one section of the country simultaneously to all parts of the land. Technical problems which had been overcome in regional networks could now be avoided in a national system of station hookups.

It was natural that the political conventions of 1924 should serve as testing grounds for multiple station hookups. The radio industry was ready for the trial; the conventions offered height of interest sufficient to impress the country with any such test.

The first of the major conventions was the Republican, which was scheduled for Cleveland in June. Shurick wrote

that it was the pire of AI&T c picking up the 5 Iritune made th tight be the st it would be ne Comittee beca The Repu out not only c intion techni encugh so that they occurred lizes said "T their schedul te quickly ta the Cleveland Banning sid the broa technical kn in such a wa iso proved : Such a sause of themsels that was lE. P Broadca . 2. wew that it was the <u>Chicago Tribune</u> which was the first to inquire of AT&T of the availability of telephone lines for picking up the convention for radio.¹ At the time the <u>Tribune</u> made the inquiry, there was a possibility Chicago might be the site of the convention. The newspaper was told it would be necessary to deal with the Republican National Committee because of the importance of the event.

The Republican Convention broadcast was to be a tryout not only of interconnection of stations but also of production techniques. Programming had to be arranged flexibly enough so that convention highlights could be broadcast as they occurred. Before the Convention opened, <u>The New York</u> <u>Times</u> said "The majority of program directors have made up their schedules with soloists and readers so that they can be quickly taken 'off the air' when it is opportune to switch the Cleveland microphone into the broadcasting circuit."²

Banning, in his semi-official history of station WEAF, said the broadcasting of conventions not only demonstrated technical knowledge and skill in interconnection of stations in such a way as to make national broadcasting possible but also proved the economic stability of the industry. He said:

Such a significance can be ascribed to them because of the fact that the broadcasting stations themselves share in the expense of the wire network that was temporarily set aside for the service. In

¹E. P. J. Shurick, <u>The First Quarter Century of Ameri-</u> <u>can Broadcasting</u> (Kansas City: Midland Publishing Co., 1946), p. 257.

²New York Times, June 8, 1924, VIII, p. 19.
.1 so doin tased t deliver i and the tige co because distanc 5 The c portunity o These progra country's 1. stations. At f1: an almost i: facilities tions in the the national ilstance bus can National to could de: Stee wa and should : tesults were Genera Scrention v d their reg " Was thoug Mitical pr Barri Svew y so doing, they were accepting the principle which based the idea of serving a chain of stations by delivering programs during Long Lines off-peak hours, and their experience showed how local station prestige could be increased and new listeners gained because of program material brought by wires from a distance source.

The convention gave the broadcasting industry the opportunity of doing public service reporting on a large scale. These programs of public interest were brought to the country's living rooms at the expense of the broadcasting stations.

At first the telephone company thought it was up against an almost impossible problem of adapting its telephone wire facilities to a plan for the interconnection of radio stations in the principal cities of the country for reporting the national convention without unduly disrupting its long distance business. The company finally went to the Republican National Committee with a list of twelve cities to which it could deliver the convention proceedings. The national committee was told it should select the cities it wanted and should make arrangements with local broadcasters. The results were excellent.²

Generally speaking, the expense of broadcasting the convention was borne by the radio stations and AT&T as part of their regular operating expense. For the campaign proper, it was thought the national committees should pay for political programs with the possible exception of a few

¹Banning, op. cit., p. 241.

²<u>New York Times</u>, July 19, 1924, p. 2.

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The public response to the announcement that the national conventions were to be broadcast was tremendous. New sales records were set for radio receivers and parts. Millions were thrilled with the possibility of hearing the voices of the political leaders of the nation.

Radio advertising blossomed forth in the newspapers, especially after the successful broadcast of the Republican convention. Headlines of the ads read: "First Row Seats at the Democratic Convention for your whole family (no standing)"' "Ware Neutrodyne on Five Day Free Trial from Landay's (9 stores)"; "The Famous de Forest D-74 formerly \$144.50 with loop and tubes now \$65, on time"; "5,000,000 people listened in by radio when Coolidge and Dawes were nominated. Landay's Club Plan brings the Democratic Convention to you--by radio."¹

There was no doubt the 1924 campaign was to be a radio election. It was commonly accepted that radio would afford all the country an opportunity of hearing the candidates. Early in the spring, broadcasting input apparatus was set up on the White House lawn for the convenience of the President.² William McAdoo, one of the contenders for the Democratic nomination, applied for a broadcasting li-cense for a station to be built at his home in Los Angeles.

¹<u>New York Times</u>, June 18, 1924, p. 13.
²<u>New Republic, March 19, 1924, p. 91.</u>

ŗ 1 The British ha ĵ. of 1923. Now ¥ reater use of) There wa political tool It was acknowl and a novelty tot be approad pictures. Rad Icre, radio wa Voice. But ther Consider. this large b mins feedba ence in a poli Resident or t patiently woul ter remembere ad tuned the There we > politics wh ţ ^{ize} 10, 1924 " Little que build by the lonarles leterary G The British had already used radio in the general elections of 1923. Now American politicians expected to make even greater use of the medium.

There was speculation as to the value of radio as a political tool as the conventions and the campaign approached. It was acknowledged there was a present newness about radio and a novelty in hearing political candidates which could not be approached by the newspapers or the silent motion pictures. Radio overcame the barrier of distance--and furthermore, radio was wonderful because it projected the actual voice.

But there were certain intangibles a radio speaker had to consider. How was he to know how he was getting across to his large but separated audiences when he had no communications feedback? How long could he expect to hold his audience in a political speech? Millions might listen to the President or to a Lloyd George, but how long and how patiently would people listen to routine speeches before they remembered as Merz said "The saxophones begin at seven" and tuned the speaker out?¹

There were many questions then about the value of radio in politics when the Republicans convened at Cleveland June 10, 1924 to nominate a candidate for President. There was little question about the candidate. Coolidge was untouched by the disgrace of Teapot Dome and other scandals

¹Charles Merz, <u>The Great American Bandwagon</u> (New York: The Literary Guild, 1928), p. 49.

÷ of Warren G. F safe and secur have been nomi Furthers Republican Ser in the 1920 cc own members, N to break the W ent. Senator powerful in 19 discure positi Graham : troadcast over tion, WEAF. H So two w men wert w over and f returned to again with the first MoNamee zi a gallery sections for t Hpe organ, to iage for the Statione the Lew Yor 2 Mollanee

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of Warren G. Harding's administration. The nation felt safe and secure with Coolidge. Will Rogers said "He could have been nominated by postcard."¹

Furthermore, Coolidge had close reins on his party. Republican Senators had been in the decision-making position in the 1920 convention. That year they chose one of their own members, Warren G. Harding, as a dark horse candidate to break the Wood-Lowden stalemate. In 1924 it was different. Senator Henry Cabot Lodge had been one of the most powerful in 1920, but now in 1924 he was relegated to an obscure position in the convention.

Graham McNamee described this first convention to be broadcast over radio. He was there, of course, for his station, WEAF. He said:

So two weeks before the opening, one of our plant men went with me to Cleveland to look the big hall over and find out as much as we could about the procedure. After this little reconnaissance we returned to the office and went back to Cleveland again with a staff of thirteen men two days before the first gun was "fired."²

McNamee found a huge hall with about 16,000 seats, and a gallery for spectators. The auditorium was marked in sections for the various states. To the right side was a pipe organ, to the left a place for a band. There was a stage for the dignitaries, and in front of the stage a platform where the actual officers sat. From this platform a

¹<u>New York Times</u>, June 19, 1924, p. 5.

²McNamee, <u>op. cit</u>., pp. 72ff.

• marrow tongue, a į ence. There the ar announcement Ÿ. A glass tr mear the base of with a table, a alittle board o one for announci also placed by tongue. The and cthers were und was an associat amouncer by ph The Repub sentiments were preliminaries c: Collige's name Wenty minutes. receiving all bu Mr. Coolid; the University ton. Dr. Burton lator had been h log of Northampt The convents ^{is car} be seen by narrow tongue, about four feet wide, ran out into the audience. There the chairman or speaker stood when there was an announcement or speech to be made.

A glass broadcasting booth was erected on the stage near the base of the proscenium arch. The booth was equipped with a table, a chair, paper, telephone, head phones, and a little board of signal lights. There were two microphones, one for announcing, the other for a spare. Microphones were also placed by the organ, by the band, and on the narrow tongue. The announcer could control his own mike but the others were under the direction of the control room. There was an associate on the narrow tongue who relayed to the announcer by phone information about what was going on.

The Republican convention ran quite smoothly. The sentiments were almost entirely for Coolidge. Even in the preliminaries of the meeting on the first mention of Coolidge's name there was a spontaneous cheer which lasted twenty minutes. Coolidge was nominated on the first ballot, receiving all but 44 of the 1,209 votes.

Mr. Coolidge had chosen Dr. Marion Burton, president of the University of Michigan, to place his name in nomination. Dr. Burton and Mr. Coolidge had become friends when Burton had been head of Smith College at Coolidge's home town of Northampton, Massachusetts, a few years before.

The convention was largely under Coolidge's control, as can be seen by his almost unanimous victory on the first



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ballot. The only time the Old Guard Senators were able to show their strength was in the selection of a nominee for Vice President.

Coolidge's first choice for a running mate was Senator William Borah. A story has been told in which Coolidge personally asked Borah before the convention to share the ticket with him. Borah's answer was said to have been: "At which end?"¹

After Borah declined Coolidge's request, the President favored Judge William S. Kenyon of Iowa. The Old Guard, however, managed to put through the nomination of Frank O. Lowden, who had figured so prominently in the deadlock with General Leonard Wood in the 1920 convention. Lowden refused to accept the nomination. The Coolidge forces next backed Herbert Hoover for the position, but the Old Guard was instrumental in nominating Dawes.²

The Coolidges sat in the White House and listened in on the proceedings of the Republican National Convention as many millions of Americans throughout the country were doing. The Coolidges were fortunate in having a new eight tube radio equipped with a loud speaker. Millions of other interested Americans listened with less efficient sets but with no less interest, perhaps.

The convention was carried by stations WEAF, New York, and WCAP, Washington, which were connected with others by

¹William Allen White, op. cit., p. 301.

²Bruce Minton and John Stuart, <u>The Fat Years and the</u> <u>Lean</u> (New York: International Publishers, 1940), p. 119.



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wire in twelve widely separated cities. There must have been a great flurry in making last minute arrangements but finally there were sixteen stations in those cities linked in one great network.¹

The Cleveland stations WJAX and WTAM had arranged to share time in such a manner that a microphone would always be open to the convention. KDKA, the Westinghouse station in Pittsburgh was broadcasting on short wave as well as the regular wave length. A relay station had been erected by the company near the geographical center of the country at Hastings, Nebraska. This station was used to rebroadcast the short wave signal of KDKA so that it could be picked up by KGO, Oakland, California, and from there be sent out for the Pacific coast area.

The nation listened to the three day meeting of the Republicans and looked forward with interest to the Democratic meeting to be held in old Madison Square Garden in New York, starting June 24.

In the meantime, the Republicans considered the choices they had made--Coolidge and Dawes.

Coolidge, of course, was known to almost all Americans. He was quiet, and a man of few words. He seemed to have a sense of timing so that he would appear at the opportune moment when his actions and words would receive the most political attention. Men talked about Coolidge luck, even

¹See Appendix D.

tack in the ear i pslowly from story of unknow 2 on the nominat: the ticket when ident in 1920. sid he would knew about the teat was all t Although le attributed tack into foc: been largely When Co it happened d Was Vacationi iled. The ne Where tight by a m the occupant. te message ٠ ; Io cor to form in t the Brim-lar Wistairs : iere in the intige ra back in the early days of his career when Coolidge was moving up slowly from legislator to Governor of Massachusetts. A story of unknown origin has been told about a man commenting on the nomination of Coolidge to run for Vice President on the ticket when Warren G. Harding ran successfully for President in 1920. In the story, the man is supposed to have said he would hate to be Harding in this case because he knew about the Coolidge luck. After all, Harding's heartbeat was all that was between Coolidge and the Presidency.

Although it does not seem that Harding's death should be attributed to Coolidge's luck, nevertheless Coolidge came back into focus again at that time. The Vice President had been largely overshadowed by the handsome and genial Harding.

When Coolidge came back to the attention of the people it happened dramatically. He made good news copy. Coolidge was vacationing in Vermont at his father's home when Harding died. The news was brought to the isolated hamlet, Plymouth, Vermont where the elder Coolidge lived, in the middle of the night by a messenger who had to pound on the door to wake the occupants. Father Coolidge answered the door and took the message to his son.

To continue with the picture which all America began to form in the next few days from radio and newspaper reports: the grim-lipped Vice President carefully dressed and came downstairs into the kerosene lamplight of the sitting room. There in this modest home in a tiny Vermont village Calvin Coolidge raised his right hand while his left rested on the

i. farily Bible, È the President of the peace, Soclidge. A Ļ witnesses. I From th Calvin Coolid tesause he wa New England Y early and use appeared thir half years in regular Presi Were notable As note Congress, Dec Was the first tted over r lRobert Lishing Compa 2H. C.1 Story Coll Col

family Bible, and he thus took his oath and was sworn in as the President of the United States. His own father, a justice of the peace, in his official capacity swore in Calvin Coolidge. A few humble people and neighbors were the only witnesses. It made a story to be told and retold.

From this moment on until he left office in 1929, Calvin Coolidge was regularly in the news. It was not only because he was President, but also because he was a colorful New England Yankee character. He learned the value of radio early and used it as often as he could. West says Coolidge appeared thirty-seven times on radio during his six and onehalf years in the White House. This was in the days before regular Presidential news conferences, and his appearances were notable occasions.^{1,2}

As noted previously, Coolidge's first Message to Congress, December 4, 1923, was broadcast by radio. This was the first time a President's Message had ever been transmitted over radio. Station WCAP was the originating point

Robert West, The Rape of Radio (New York: Rodin Publishing Company, 1941), p. 416

²H. C. Kaltenborn in an interview recorded in the <u>Oral</u> <u>History Collection</u>, Columbia University, p. 154, gave his impression of Coolidge: "I remember his New England twang, the terseness with which he answered questions. He never said anything more than was necessary. I remember walking into that famous oval room in the White House where the President sees his visitors and Mr. Coolidge actually stood up as I approached his desk, shook hands in an indifferent sort of manner and then said, ' Sit down' (pause) 'for a minute'."

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with a link to WEAF, New York, WJAR, Providence, KSD, St. Louis, WDAF, Kansas City, and WFAA, Dallas. Reception was good; millions were believed to have heard the President's voice. The speech mentioned as taking place six days later from the White House was carried by the WCAP-WEAF-WJAR network.

Coolidge spoke over radio seven more times between December and the Republican Convention in June.¹

The last speech he gave before the convention was one during the National Oratorical Contest. Coolidge and Chief Justice William Howard Taft appeared together on this occasion, just a few days before the Republicans met in Cleveland.

The Rotary Club of Chicago planned and announced another radio speech for President Coolidge. This was to be made in celebration of the founding of Rotary. The club selected WJAZ, Chicago, and eighteen other stations scattered across the country as official stations for the occasion.

The discussions which followed between Rotary and AT&T illustrate how little outsiders knew about the cost of facilities for interconnecting stations.

AT&T offered to broadcast the speech of the President over the WEAF-WCAP-WJAR network without charge, but Rotary did not want to pay the linking charge necessary to bring the talk to Chicago. The Rotarians could not see the basis

¹See Appendix C.

n^e 2 ł for a charge of į the long distan) 314.40. (They) te held in oper misians on duty Once the the fee or go w the speech was should be broad to make a dist. of the Preside: and when he wa Coclidge self in a more according to w said of him ar I didn' warmth and himself pi Indian hei few real tioular by That's wh Stearns, store in his polit with him Kaltenb The qua initated sideratic and in hi speaker of

for a charge of \$2,500 to connect Washington and Chicago when the long distance telephone rate for the same time would be \$14.40. (They did not understand that several lines had to be held in operation during the speech with a number of technicians on duty along the way to operate booster devices.)

Once the Rotary Club realized it would have to pay the fee or go without the service they suggested that since the speech was by the President of the United States it should be broadcast without charge. The reply of AT&T was to make a distinction between the broadcasting of a speech of the President when he was acting in an official capacity and when he was talking in a private or unofficial capacity.

Coolidge found in radio a medium for projecting himself in a more favorable light than he could in person according to what H. V. Kaltenborn, the news commentator, said of him and his voice:

I didn't like Coolidge as a person. He lacked warmth and had little popular appeal. When he had himself photographed with a ten gallon hat or an Indian headdress, he only looked ridiculous. He had few real friends. He admired certain people, particularly those who achieved business success. That's what explains his warm relations with Mr. Stearns, the successful proprietor of a department store in Boston. Coolidge cultivated him throughout his political career and used to discuss problems with him after he became President.

Kaltenborn said of Coolidge's radio voice:

The quality of a President's voice is sure to be imitated with exaggeration of some particular consideration. Mr. Coolidge spoke rather precisely and in his New England twang carried well over radio. He was voted the third most popular radio speaker during his presidency, largely because of this homely unmistakeable quality of speech. He was also the first president to make numerous addresses over the radio. Before he became President, he was hardly known outside of New England. Radio helped make him a national figure. Few people at that time had access to a national radio network.¹

Kaltenborn also said that Coolidge had a dry sense of humor and probably practiced economy in speech because he realized what he said might be misconstrued and distorted. Therefore, he said as little as possible. He said Coolidge proved he had a keen sense of value of his own words by the price he exacted for what he wrote after he retired from the Presidency.²

Probably one of the most famous quotations which described Mr. Coolidge and his radio voice is one which was originally made by Charles Michelson in the <u>New York World</u>. It deserves to be quoted in full:

Mr. Coolidge is no orator. There is a wire edge to his voice, due in some degree to the regular nasal twang of the thirty-third degree Yankee and in part to his meticulous enunciation of each syllable; but according to the professors of the new art, he has a perfect radio voice. The twang and the shrillness disappear somewhere along the aerial and he sounds through the ether with exact clearness as well as softness. Mr. Davis, on the contrary, has a voice which to the direct auditor has that bell-like quality of

¹Kaltenborn, <u>Oral History</u>, <u>op. cit.</u>, p. 156.

²Frank Luther Mott, <u>American Journalism</u> (New York: Macmillan Company, 1950), p. 732. Here Mott reports that Coolidge was paid \$3.80 per word for two articles purchased by <u>American Magazine</u> after he left the White House. resonance that doubles the quality of his beautiful rhetoric. Via radio, however, this muffles and fogs to some extent. The radio was perfected just in time for Mr. Coolidge.¹

William M. Butler, the Chairman of the Republican National Committee, announced shortly after the Republican Convention that Mr. Coolidge would stay at the White House and campaign from there in several important radio addresses. Charles G. Dawes was assigned the active speaking and traveling campaign.

Charles Dawes was about seven years older than Coolidge but more energetic in his actions and speech. At the age of fifty-nine he was prepared to make a blazing campaign across the country, blasting away at his opponents in his characteristic fashion. All his life he had been straight from the shoulder, a cutter of red tape.

He was born in Marietta, Ohio, in 1865, and lived there until he was graduated from the local college. He went on to Cincinnati Law School. He worked so energetically summers on the Marietta, Columbus, and Northern Ohio Railroad that he was made chief engineer of construction before he was out of law school. He was graduated before he was old enough to take the bar examinations, but after a short wait he passed them and started practice in Lincoln, Nebraska.

Dawes made a name for himself in law early by his work as counsel for the Lincoln Board of Trade in seeking a

¹Radio Broadcast, November, 1924, pp. 20-21.

reduction of Nebraska railroad rates. He moved to Evanston before he was thirty when he became interested in the gas business in Illinois and other western points.

Dawes helped organize Illinois for McKinley for President in 1896, and was active in securing his candidate's nomination and election. Dawes was appointed Comptroller of Currency in 1898. His tenure was conspicuous for efficiency of administration and disregard for red tape. His office was concerned at that time in the conduct of many receiverships and trusts created after the financial trouble of 1893.

He retired from his government post in 1902 to return to Chicago to organize the Central Trust Company of Illinois, which became one of Illinois' strongest financial institutions.

His quiet life was interrupted by WorldWar I. He volunteered for military service in 1917 even though he was over age. He was commissioned Major and then Lieutenant-Colonel of the 17th Engineers (RR) because of his work experience during his college days. He was placed on General Pershing's staff in France as chairman of the general purchasing board and chief of the supply procurement. Subsequently, he served on combined Allied boards and on the liquidation committee of the American Expeditionary Forces. In all this work he stressed efficiency and economy.

President Harding appointed Dawes the first Director of the Budget (1921) on Dawe's own terms that he could do

it non-politically and that he would get cooperation from government officials. Dawes worked hard for a year and then resigned because he felt he had established the budget office on a satisfactory and permanent basis.

Charles Dawes was appointed in 1923 to the job which gave him international prominence. He and Owen D. Young of General Electric were appointed as the American members of an international committee of experts to advise the Reparations Committee on means of stabilizing Germany's economy so that she could make reparations payments to the Allies. Dawes was chosen chairman of the group so the report of it became known as the Dawes plan. This was widely hailed, and Dawes' name became known throughout the world.

This was the forceful man who was chosen over Kenyon and Hoover to be Coolidge's Vice Presidential nominee.

Coolidge and Dawes had been nominated with little trouble, little intrigue, and no factional breaks in the party. In three days, the party delegates had been able to conclude their work and think of starting home. The Coolidge nomination had come about as predicted; the future looked good for the Republican party.

Graham McNamee and his fellow workers undoubtedly felt the experience of broadcasting the Republican Convention would be adequate preparation for the Democratic about two weeks later.

WJZ, the New York RCA station, and WGY, Schenectady, the General Electric station decided to link together for

Major J. Andrew White's description of the Democratic Convention.¹

New York City made expensive arrangements to welcome the delegates. While there was much enthusiasm and noise, there was not the singleness of purpose such as there had been at the Republican Convention in Cleveland.

The convention opened at old Madison Square Garden on June 24 and lasted fifteen days, a contrast to the three days of the GOP meeting. In New York, the United States Senators attending were much in the limelight, again a contrast to the earlier convention.

The Democrats were split before the convention started, split on several questions, but most sharply on the Ku Klux Klan.

After World War I, promoters had found it was financially profitable to turn the pent-up hatreds and strong feelings engendered during the war against Negroes, Roman Catholics, and Jews through the secret agencies of the K.K.K.

The movement with its hooded robes and secret ceremonials had spread through the South and Middle West particularly. Its one hundred per cent Americanism, its white supremacy appeal swayed many: others saw it as a convenient screen behind which to hide selfish or illegal activity. Some were attracted to the organization because membership had become an important status symbol in some areas. Still

¹See Appendix D for list of stations participating.



others joined probably because they were afraid not to-pressure from friends and neighbors was too great to resist.

The Republicans had been able to sidestep the Klan but the Democrats had to face the ugly issue. As a result, they were so torn apart they were unable to put on an effective Presidential campaign.

Few men had the courage to stand out against the Klan, for it was political death to do so in many parts of the country. That same year William Allen White ran as an independent candidate for governor of Kansas on an anti-Klan platform because he could persuade neither the Republican nor the Democratic parties to repudiate the organization.

Men who sat in the Democratic Convention knew the explosive nature of the KKK question and tried to avoid any open discussion of it. Al Smith had taken a definite stand against the Klan. William McAdoo, the other leading prospect for nomination, who drew most of his support from the South and parts of the West where the Klan was the strongest, made no public statement on the KKK, although he personally did not ascribe to its tenets.

William Jennings Bryan, still prominent in the Democratic party, fought one of the last great battles of his career at the 1924 convention. He tried to prevent the party from tearing itself to shreds over a resolution for the party to go on record as censuring the Klan.

Jay G. Hayden, presently the Senior Washington correspondent for the Detroit News, covered the Democratic

. م convention as what the real resolution. E Men threatened ; split and spli halves, quarte and the disord in the early h wites was fina. lost by a fract followed, Hayde had retreated : the man who had in his starched With tiredness, Graham Mo lost significar. personal victor; to enjoy on ear 10 Iore. "2 It may hav tt to really wa isyond repair fo William G. the candidates liay G. Hay ^{ĉxoxamee}, g convention as a young reporter. He is sure no one knows what the real results were of that vote on the censure resolution. Before the vote was taken, feeling ran high. Men threatened one another with violence. Delegations split and split again. Votes were cut into fractions of halves, quarters, eighths. In the noise, the confusion, and the disorder that filled the Garden a vote was taken in the early hours of the morning. The count of the votes was finally announced--the censure resolution had lost by a fraction of a vote. In the excitement that followed, Hayden sought out Bryan and found him where he had retreated from the din and noise of the battle. Bryan, the man who had started out the day fresh and immaculate in his starched shirt front now was a wornout man, grey with tiredness, his clothes and hair disheveled.¹

Graham McNamee said William Jennings Bryan loomed most significantly in the convention. "It was a splendid personal victory he won in the convention--the last he was to enjoy on earth, for the Great Commoner will broadcast no more."²

It may have appeared as a splendid victory to McNamee, but it really was a hollowvictory, for the party was split beyond repair for this campaign.

William G. McAdoo and Alfred E. Smith, the two principal candidates, were so strong they prevented each other

¹Jay G. Hayden, in an interview with the writer in Washington, January 25, 1962.

²McNamee, <u>op. cit</u>., p. 91.

from winning the nomination. Their opinions and beliefs were so far apart that there was little chance of compromise between their followers. They tried to wear each other down for 102 ballots. In the end it was necessary to select John W. Davis of New York and West Virginia.

The two candidates, McAdoo and Smith, symbolized the opposite poles on so many basic questions and traditions it is understandable that they could not agree. McAdoo was a Dry who appealed to the rural people of the South and West and to fundamentalist Protestant voters in general. Smith was supported by the urban areas, in the North, by the Wets, and the Roman Catholics.

Al Smith was by far the most popular candidate before the convention, although McAdoo outpolled him on the ballots of the delegates. When Smith's name was placed in nomination the traditional demonstration lasted a record length of time. Lorant said the ovation was 73 minutes long, Mc-Namee said an hour and a half.¹

Smith truly was a man of the people. He had been born in the lower East Side of New York City and lived there most of his life. He did not attend high school and seldom read a book, yet he had an analytical mind, a natural talent for speaking, a rugged honesty, and a desire to help people. He worked his way up through Tammany Hall. He was a process server, assemblyman, sheriff, speaker of the assembly, and

¹Stefan Lorant, <u>The Presidency</u> (New York: Macmillan Company, 1952), p. 558; McNamee, <u>op. cit</u>., p. 83.

• finally governo: ism in his work investigated wor ì after the disas factory in New 1 Smith was a substantial ma Earding landslic ran ahead of his chair in 1922 w: Now in 192 Democratic candi speech was Frank ticket in 1920 y re-enter politic This was a f the earliest le had used it a plitical tool, Win discussions He is reme ^{Tay have} used th 3 intinued using ^{itosed} him. Oth Ett such as "ba "il baloney," ; Luchamee, g finally governor of New York. He had shown his humanitarianism in his work on the committee of the legislature which investigated working conditions in the garment industry after the disastrous fire at the Triangle Shirt Waist factory in New York City in 1911.

Smith was elected governor of New York in 1918 by a substantial majority but lost to a Republican in the Harding landslide of 1920. Even though he was defeated he ran ahead of his ticket. He was returned to the governor's chair in 1922 with a plurality of 400,000 votes.

Now in 1924, his name was placed in nomination for the Democratic candidate for President. The man who made the speech was Franklin Delano Roosevelt. He had been on the ticket in 1920 with James M. Cox. Roosevelt was trying to re-enter politics again after a crippling attack of polio.

This was all being broadcast by radio. Smith was one of the earliest to recognize the political value of radio. He had used it as frequently as he could, not only as a political tool, but also as a means of reaching citizens with discussions of problems of state government.

He is remembered for his pronunciation "raddio." He may have used this mistakenly the first time but probably continued using it long after he was corrected, because it amused him. Other expressions have been associated with Smith such as "baloney," "no matter how you slice it, it's still baloney," and "let's look at the record."¹

¹McNamee, <u>op. cit</u>., p. 163.

-Smith was the good work h with fondness a 2 Smith was a goo John W. D al Smith had a had put Smith t have lost the t it. I think hi a bachelor's de Smith's 1 son-in-law of W into prominence Chattanooga whe 1902. Before h over the abando Manhattan. Thi ther New York McAdoo wa 1912. After th te Treasury. ^{ictails} of the , inducted four j Herbert (2John W. I Smith was highly respected by the men who knew him and the good work he did. Herbert Hoover, at 87, looked back with fondness at a long friendship with Smith and said "Al Smith was a good man."¹

John W. Davis, in reminiscing about the campaign, said Al Smith had a "thoroughly honest mind." He said: "If you had put Smith through college I am not sure you wouldn't have lost the temper of the blade in the effort to sharpen it. I think his rugged common sense was more to him than a bachelor's degree."²

Smith's leading opponent was William G. McAdoo, the son-in-law of Woodrow Wilson. Georgia-born McAdoo had come into prominence in New York City after moving there from Chattanooga where he had started the practice of law in 1902. Before he was forty, McAdoo formed a company to take over the abandoned Hudson River tunnel between Hoboken and Manhattan. This was completed in 1904. He completed another New York City tunnel by 1909.

McAdoo was a strong supporter of Woodrow Wilson in 1912. After the victory, Wilson appointed him Secretary of the Treasury. In this new job, McAdoo helped work out the details of the new Federal Reserve System. His department conducted four Liberty Loan Drives in which eighteen billion

¹Herbert C. Hoover, in an interview with the writer, New York City, November 3, 1961.

²John W. Davis from an interview recorded in the <u>Oral</u> <u>History Project at Columbia University</u>, p. 152.
• collars worth O States. He helt insurance for si for soldiers and 2 director of the iring the war. as Secretary, as of the railroad: Mohdoo re his home in Cali for the Presider in 1920, but los the convention d number of delega ŧ He did not succe Prevent it. [MeAdoo's s South and West. he neither sough Nations, he had te expressed him ^{is had} shown his ^{itrestor} of the a coursel at on e cil scandals Wised McAdoo t dollars worth of bonds were sold to the people of the United States. He helped in the creation of a bureau of war risk insurance for shipping and later saw it extended to insurance for soldiers and sailors. In addition he was appointed director of the railroads when the government took them over during the war. At the end of the war he resigned his post as Secretary, and a few months later resigned as director of the railroads.

McAdoo returned to the practice of law, finally making his home in California. He was a half-hearted candidate for the Presidential nomination at the Democratic Convention in 1920, but lost out to James M. Cox of Ohio. He went to the convention in 1924 with a good organization and a large number of delegates pledged--nearly enough to nominate him. He did not succeed because Smith held enough delegates to prevent it.

McAdoo's support came mostly from Bryan country--rural South and West. He received the support of the KKK which he neither sought norrepudiated. He favored a League of Nations, he had supported woman's suffrage and Prohibition. He expressed himself as sympathetic to farmers, and believed he had shown his friendliness to labor during his time as director of the railroads. He had been hurt by his position as counsel at one time for Edward Doheny, a prime figure in the oil scandals of Harding's administration. Wall Street opposed McAdoo because it believed his railroad record had

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been prolabor and uncooperative to the railroad owners.

It was unfortunate that the first Democratic National Convention to be broadcast had to be a long, drawn-out, deadlock, that two powerful candidates so sharply differing in outlook, in background, and in personality should be held up to the attention of the country for fifteen days, without a choice being made between them. The whole country then knew this party was split beyond successful patching that year.

One of the facts best remembered about the 1924 Democratic : Convention was that there were 103 ballots taken before a candidate was chosen. Another incident that has been vividly remembered was that the balloting started off each time with "Alabama casts twenty-four votes for Underwood."

Graham McNamee described it: "That old war-horse, ex-Governor Jim Brandon of the same state, acted as the train dispatcher, and he had an unforgettable delivery--a mixture of Southern drawl and sing-song, long drawn out, with a humorous accent on the 'un' of 'Underwood'."²

On the fifteenth ballot the galleries took up the cry and repeated it in unison with the governor. Across the country where groups of interested people were crowded around radios many times they also took up the cry. This "Alabama casts twenty-four votes for Underwood" was

> ¹Minton and Stuart, <u>op. cit</u>., p. 121. ²McNamee, <u>op. cit</u>., p. 83.

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ŗ repeated and symbol of a p butt of jokes This wa W. Davis, inh Sovernor Char Jennings Brya nominee. Das wite the ext Meldoo. In his cratic party responsibili of course, ha do but presi: Davis : [but also he John W Virginia, wh for Congress to Washingto; of party lea: President Wo States. He d Europe in 19 ence in Bern l_{Davis} repeated and repeated--over a hundred times. It became a symbol of a party unable to agree, and finally it was the butt of jokes on the vaudeville circuit.

This was the situation the compromise candidate, John W. Davis, inherited. He was chosen on the 103rd ballot and Governor Charles Bryan of Nebraska, brother of William Jennings Bryan, was selected as the Vice Presidential nominee. Davis faced the impossible task of trying to unite the extremes of the party represented by Smith and McAdoo.

In his memoirs, Davis said: "Not only was the Democratic party ripped apart but it was impossible to hand the responsibility of the Harding era ills on Coolidge. He, of course, had been Vice President where he had nothing to do but preside over the Senate."¹

Davis not only had the handicap of a divided party but also he was labeled as Wall Street's man.

John W. Davis was an attorney in Clarksburg, West Virginia, when he was the successful Democratic candidate for Congress in a district normally Republican. He went to Washington in 1911. His ability came to the attention of party leaders, and, as a result, in 1913, was appointed by President Woodrow Wilson Solicitor General of the United States. He did well in this position. He was sent to Europe in 1918 as an American representative to a conference in Bern on the treatment and exchange of prisoners of

¹Davis, <u>op. cit</u>., p. 150.

I. war. That sam ambassador to He acted as or. Peace Conferent 4 American member Allied control lory. Finally, 1921. He becam Russell. This the Guaranty Ir United States R career of publi of Wilson's lib was forgotten t clients were na Davis' re lawyer was that they were neede As mentic Was a strong t lithely refer ^{Candida}te. This third party man ir all on his link: Alfred Kn âvinton ar war. That same year he replaced Walter Hines Page as ambassador to Great Britain, where he was highly respected. He acted as one of President Wilson's advisers at the Peace Conference in Paris. While there he acted as the American member on a committee to draft rules for the Allied control and government of occupied Rhineland territory.

Finally, Davis returned to private law practice in 1921. He became a partner in Stetson, Jennings, and Russell. This firm had as clients J. P. Morgan and Co., the Guaranty Trust Co., Standard Oil, the Erie Railroad, United States Rubber Co., and other big corporations. His career of public service, his defense as Solicitor General of Wilson's liberal legislation of the New Freedom--this was forgotten by much of the public when his Wall Street clients were named.¹

Davis' reply to charges that he was a Wall Street lawyer was that he was glad to work for big business firms; they were needed, but they had to be honest.²

As mentioned at the beginning of the chapter, there was a strong third candidate in 1924. Often writers blithely refer to Robert M. La Follette as the third party candidate. This seems to imply that La Follette was a third party man eager to bring about a sweeping victory for all on his ticket.

	¹ Frank	Freidel,	Ameri	ca	in the	Twentieth	Century ((New
York:	Alfred	Knopf, 1	9 60),	p.	246.			

²Minton and Stuart, <u>op. cit</u>., p. 125.



Actually, La Follette was an independent who accepted support from various groups in his candidacy for the Presidency. He felt there might be reason to form a third party after the election of 1924 if results were favorable enough. He was realistic. He knew that many progressive and liberal Congressmen and Senators who might desert their regular parties to follow him might lose out in a split vote. But if sentiment for a Third Party manifested itself in the 1924 election, four years of hard work might make such a party of major importance in the next Presidential election.

La Follette was a progressive Republican who could not get his party to follow him. He would have been happy to have had the Republic Convention accept his Wisconsin plank. He knew it was useless to enter his name against Coolidge.

La Follette sent his son, Bob Jr., to the Republican Convention with a letter to the Wisconsin delegation asking them not to present his name but to offer a Wisconsin platform. This, in substance, would be a set of resolutions approved by the citizens of that state. Subsequently, a caucus of Wisconsin delegates was held and resolutions were submitted to the Resolutions Committee of the convention. At the same time a copy was given to the press for publicity. The Resolutions Committee voted down the Wisconsin platform but it was later presented on the floor of the convention as a minority report.¹

¹Bella Case La Follette and Fola La Follette, <u>Robert</u> <u>M. La Follette</u> (New York: Macmillan Co., 1953), II, pp. 1107-1108.

+ Much of campaign can t an issue of mo not have a vir ; repeal of the B lower tariffs; and for the ini injunctions; su demand for a re case of actual La Follet The reaction wa Were still dead a La Follette f at his Washingt signers asking United States. Gilbert Roe wer The Senat Progressive mov Repromised to ; That same ÷ William H. John the Conference ^{to be the} candic l<u>Ibid</u>., II Much of La Follette's platform in his Presidential campaign can be seen in the Wisconsin resolutions: making an issue of monopoly; a demand that Federal courts should not have a virtual veto of acts of Congress; a call for repeal of the Railroad Transportation Act; advocation of lower tariffs; a call for direct election of the President, and for the initiative and referendum; opposition to labor injunctions; support of a child labor amendment; and a demand for a referendum on declaration of war except in case of actual invasion.

La Follette thus made his views known to the country. The reaction was impressive. On July 3, while the Democrats were still deadlocked in New York City, representatives of a La Follette for President Committee called on the Senator at his Washington residence with a petition with 200,000 signers asking him to be a candidate for President of the United States. Chairman W. T. Rawleigh, Zona Gale, and Gilbert Roe were among the callers.

The Senator took the petition more as a call for a Progressive movement than he did as a personal tribute. He promised to give his answer the next day in Cleveland.¹

That same night the Senator received a telegram from William H. Johnston, Chairman of the National Committee of the Conference for Progressive Political Action asking him to be the candidate of the progressive forces.

¹<u>Ibid.</u>, II, pp. 1109-1110.

La Folle a full slate c he knew in a ti held by progres he decided to a the CPPA delega The group It represented brotherhoods we delegates. The MARCP, progress Women's groups, There wer Expenses were m and 9,000 visit thing over \$2,3 The conve Commentation, presi-Machinists. See Present. Bob, dependent candi: political party On the sea erdorsed as an f 1_{50} resolved to l Ibid., II La Follette knew the CPPA wanted a third party with a full slate of candidates. He was opposed to this because he knew in a three-cornered election the positions already held by progressives would be endangered. For this reason, he decided to announce as an independent candidate before the CPPA delegates convened.¹

The group which met at Cleveland was enthusiastic. It represented a wide range of progressives. The railroad brotherhoods were there as were farm, labor, and co-op delegates. There were members of the Negro group, the NAACP, progressive Republicans and Democrats from Wisconsin, women's groups, and political clubs from several colleges.

There were no bands; the enthusiasm was spontaneous. Expenses were met by passing the hat among the 1,000 delegates and 9,000 visitors present. Collections amounted to something over \$2,300.²

The convention was called to order by William H. Johnston, president of the International Association of Machinists. Senator La Follette and his two sons were present. Bob, Jr., read his father's statement of his independent candidacy and of the wisdom of forming a permanent political party after the election.

On the second day of the convention, La Follette was endorsed as an independent Progressive candidate. It was also resolved to call a convention for establishing a new

¹<u>Ibid.</u>, II, p. 1110. ²<u>Ibid.</u>, II, pp. 1111-1113.

party early in warranted. Congress the news of La saying, "I wou La Folle nominee was the the United Stat the Senator and tid.² Senator E nomination afte their President cratic party go refuse to go wi 1

> ¹<u>Ibid</u>., I ²<u>Ibid</u>., I ³<u>Ibid</u>., I

party early in 1925 if the November election results warranted.

Congressman Fiorella La Guardia of New York greated the news of La Follette's candidacy by endorsing him and saying, "I would rather be right than regular."¹

La Follette's first choice for his Vice Presidential nominee was the liberal Associate Justice Louis Brandeis of the United States Supreme Court. Although the Justice admired the Senator and his principles, he felt unable to accept the bid.²

Senator Burton Wheeler (D) of Montana was offered the nomination after the Democrats had chosen John W. Davis for their Presidential candidate. Wheeler said, "When the Democratic party goes to Wall Street for its candidate I must refuse to go with it."³ He then accepted La Follette's offer.

¹<u>Ibid</u>., II, p. 1114.
²<u>Ibid</u>., II, p. 1115.
³<u>Ibid</u>., II, p. 1116.

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CHAPTER X

THE RADIO ELECTION: THE CAMPAIGN

All three principal candidates for President in 1924 planned to use radio actively in the campaign. In July, the <u>New York Times</u> carried a story saying Mr. Davis meant to do much of his campaigning from his home at Locust Valley, Long Island.¹

The same newspaper said directly after La Follette's announcement as an independent candidate:

So far, Senator La Follette has not completed plans for the part he will play in the campaign. It is understood his inclination is to make very few personal appearances. He prefers to go to Wisconsin and address the voters through the medium of radio, leaving the active work on the stump to the Vice Presidential candidate, yet to be chosen.²

Stoddard has quoted La Follette on newspapers and radio as saying he did not care how newspapers editorialized as long as they printed news about him--gave him a "fair show." "Now that we have the radio and can reach people through it, I think newspaper influence in politics is steadily lessening."³

¹<u>New York Times</u>, July 24, 1924, p. 1.

²Ibid., July 7, 1924, p. 4.

³Henry L. Stoddard, <u>As I Knew Them</u> (New York: Harper and Brothers, 1927), p. 553. 5 ļ

The <u>New York Times</u> appraised radio and the politicians' use of it in campaigning shortly after the Republican Convention. The paper's opinion was that radio would change political oratory, would be more demanding of a speaker in his attempt to carry along a line of thought. A political speaker would not be able to depend on flowing oratory or theatrical gestures to excite an audience. Radio would expose every false note and every kind of affectation.

The Times cautioned the parties about radio.

The leaders have not tried to discover who are the effective speakers by radio in either party, and it is a risky thing to trust a man on the air because he has been a good stump speaker. President Coolidge has a great political asset in that he is extremely popular as a radio speaker. He never makes any of the mistakes that injure many speakers with radio audiences. There is never a false note in his talk. It is always simple and clear, with now and then a phrase so timed as to bring the radio audience figuratively to its feet.¹

The campaign moved at a leisurely pace for some weeks after the convention.

Coolidge evidently planned little active campaigning other than a few speeches by radio. It was two months after his nomination in Cleveland before he made his official acceptance speech, August 14. The speech was carried by fifteen radio stations, one as far west as Kansas City. It was estimated there were twenty-five million possible listeners.

¹<u>New York Times</u>, June 17, 1924, p. 2.

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Davis had broadcast his acceptance speech from his old home town, Clarksburg, West Virginia on August 11, 1924 over a network of thirteen or more radio stations.¹ A violent storm began during Davis' speech. He continued speaking even though he was not fully protected from the weather. The driving rain affected the microphone so the transmission was not perfect. An Atlanta station was added to the network so that Davis' speech would reach deep into the South, making the potential audience greater than that of Coolidge three days later.

A system of cooperation was worked out among the New York radio stations for time during Davis' acceptance speech. WNYC, the municipal station, signed off early, and WHN did not go on the air until midnight. These arrangements prevented station interference during the Democratic candidate's talk.

Charles W. Bryan, the Democratic Vice Presidential nominee, made his acceptance speech at 10:00 P.M., August 10, from the University of Nebraska stadium. It was broadcast from there by the Westinghouse station KFKX, Hastings, Nebraska. Stations WMAQ, Chicago; WFAV, University of Nebraska; and WOAW, Omaha, were also connected.

Charles G. Dawes made his formal acceptance the following evening, August 19, from Evanston, Illinois. The speech was carried by a network similar to that used during the

¹Banning, <u>op. cit.</u>, p. 244, reported thirteen stations. <u>New York Times</u>, August 12, 1924, reported WEAF and fifteen other stations.

. Ì. ! / • GOP convention. Reception was reported to be very good. Dawes was most outspoken. He called for a campaign of "brass tacks." He said the League of Nations was dead, but he did favor a World Court. He charged that La Follette with the support of socialists, malcontents, and insurgents was a "mobilization of extreme radicalism."¹

La Follette made no major speech until Labor Day.

The politicians seemed to be planning to put all their campaign efforts in the last few weeks, with radio being used more and more for political talks as election day approached.

Several obstacles were in the way. One of the biggest was: who was going to pay the bill? The convention broadcasting had been carried largely as a public service. They political parties could hardly expect AT&T and the radio stations to carry all the expense for radio campaigning.

Assume that the three parties raised the millions in campaign funds they talked so hopefully about. Assume the had enough money for radio campaigning. The next question would be: would there be time available on the air to satisfy all requests and still leave time to broadcast some entertainment? Could the Bell System spare enough circuits from its regular traffic demands?

It spite of the enthusiasm most campaigners had toward radio as a political tool, there were many who

¹New York Times, August 20, 1924.

feared it migh old-time spell blunt man sour At this "when a good n a hearty hands! independent's evening for t Most of mational, sta without consu "They annound will have to An arra casting compa party commit [the committee the. It was trol the num Only to mitical of . ^{iastically} er ^{t New} Era 111 1<u>New Y</u>c 2New Re 3New Yo feared it might be double-edged. It was "apt to make the old-time spell-binder sound flat and cheap and the plain, blunt man sound like a Demosthenes."¹

At this same time there were others who were saying "when a good radio presence, so to speak, might eclipse even a hearty handshake as a vote-getter, it might be worth the independent's while to spend his hundred dollars each evening for ten minutes on the air."²

Most of the talk about political broadcasting on national, state, and local levels evidently had been made without consulting the big broadcasting companies who said: "They announce they are going to broadcast but it is we who will have to deliver the goods."³

An arrangement was made finally between the broadcasting companies (WEAF in particular) and the national party committees for political speeches to be cleared by the committees before the stations would sell or allot radio time. It was thought it would be possible this way to control the number and quality of speeches.

Only two or three incidents occurred which made anyone critical of the arrangements. George L. Record, who enthusiastically endorsed and supported Woodrow Wilson in 1912 as a New Era liberal, was running as an Independent Progressive

¹<u>New York Times</u>, June 17, 1924, p. 2.
²<u>New Republic</u>, March 19, 1924, p. 92.
³New York Times, July 19, 1924, p. 1.

candidate for the United States Senate in New Jersey in 1924. He wanted to buy radio time on WEAF. He was refused because his request had not been cleared by his National Committee. He cried "Monopoly" and protested that he was being treated unfairly.

WEAF ridiculed the idea of their station being a monopoly, as Record charged. Just because WEAF was owned by AT&T did not prove it was a monopoly, they said, for there were over 360,000 stockholders in the company at that time, with 60,000 of them employees. The only stations out of the more than 500 in the nation owned by AT&T were WEAF and WCAP, Washington. If the request by Mr. Record had come through the regular channels it undoubtedly would have been granted.¹

Once candidate Record understood the arrangements which had been made with the committees, his protestations subsided.

Senator La Follette also cried out against monopoly when he was refused time on a Des Moines station. This incident will be covered later in the chapter.

Norman Thomas, the Socialist who later became Presidential nominee several times, was running as his party's candidate for Governor of New York, in 1924, against Al Smith, Democrat, and Theodore Roosevelt, Jr., Republican. Thomas had some trouble with censorship:

1<u>New York Times</u>, October 16, 1924, p. 28.

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There was broadcasting in 1924 when I ran for Governor of New York, and, if memory serves, I was allowed to broadcast. However, the first three or four times I was asked to broadcast in the chaotic days before the birth of NBC and the enactment of some kind of legislation, I was at the last minute denied access to the microphone because I would not permit the station to censor my remarks.¹

The election of 1924 was a radio election, but it was also the loud speaker election and the talking picture election if the figure of speech can be carried that far.

In past elections, speakers had had to depend on lung power in addressing audiences--this was particularly difficult in outdoor meetings and in talks from the rear platforms of trains.

Davis had a special campaign radio car designed for him, because he did much of his campaigning in short speeches from the rear of his train. The observation car was fitted with three microphones so that a speaker's voice could be heard in front and on both sides. Five amplifiers had been built into the tail end of the roof so the speaker's voice would carry out over the crowd. Two AT&T men traveled with Davis to keep the apparatus in first class working order.

The radio apparatus was set on rubber bases so movement of the train did not disturb it. There were two "jacks" on the side of the car so that local telephone lines could be plugged in to transmit Davis' speech to a broadcasting station.

¹Norman Thomas in a letter to the writer, December 8, 1961.

Davis made forty-six speeches from the rear of this car on the first tour he made. This was a swing of 5,000 miles through the country. The second tour was over 12,000 miles.

Charles Dawes used a public address system on his trips also. He found that it worked well whether he spoke to a few hundred or to five thousand.

Campaigners who wanted to use radio frequently found it expensive. The expense of the Speakers Bureau (which included radio) in 1924 took from 10% to 15% of the budget of the Republican National Committee. This bureau cost \$366,000 in 1924.¹

Another innovation of this campaign year was the wire photo. During a lax spell in the GOP Convention in Cleveland, wire photos of some of the principals of the meeting were sent from Cleveland to New York. The pictures were received, cuts were made, newspapers with the pictures were printed and sent back to Cleveland by airplane in a matter of a few hours. The marvels of the electronic age!

Another marvel used in the 1924 campaign was the talking picture. All three major candidates, Coolidge, Davis, and La Follette made talking pictures on the experimental de Forest Phonofilm. Movie interviews in which each candidate expressed his views on the issues of the campaign

¹James K. Pollack, <u>Party Campaign Funds</u> (New York: Alfred A. Knopf, 1926), pp. 157-158.

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were released in one program which was shown in selected theaters throughout the country.¹

Little was done in the way of campaigning in August once the acceptance speeches were out of the way. Strangely enough, this was the period when La Follette's popularity was highest--before he had made a major speech.

Lincoln Steffens may have analyzed the situation correctly when he said the

American people may feel the impulse to support Bob. But the least little thing will stampede them. Some banker will pass the word that a vote for La Follette will be a vote wasted and they will chuck Bob and vote for Coolidge. Perhaps they are feeling the impulse now and will be stampeded before election.²

Possibly it was "impulse" which moved the people who came forward early in support of Senator La Follette. Oswald Garrison Villard enthusiastically enlisted a Committee of one hundred to support the Senator. Five thousand clergymen from all over the country signified they wanted La Follette for President. Helen Keller, Jane Addams, Zona Gale, and many others representing women's organizations declared for the Senator. So did the Executive Committee of the AFL, as did the Railroad Brotherhoods, and the Scripps-Howard newspapers. Some of these stayed at the Senator's side until the election was over, others began to drop away during the campaign.

> ¹La Follette and La Follette, II, <u>op. cit</u>., p. 1125. ²<u>Ibid</u>., II, p. 1121.

2 | | - La Follette was sincere about running as an independent. He supported any good man he believed would strengthen the progressive position on legislation in the next session of Congress, regardless of the man's party. He endorsed Frazier, Ladd, Shipstead, Brookhart, Olsen, Couzens, David Walsh of Massachusetts, and Thomas Walsh of Montana. He also came out for Senator Borah of Idaho and asked that no independent run against him. Borah was grateful, but still supported Coolidge. La Follette also urged Senator Norris of Nebraska to run for re-election when he was about at the point of refusing.

The early days must have been more pleasant for La Follette than the later ones when disillusionment came. The Senator undoubtedly expected large numbers of donations to flow in. He expected more than he ever received from the AFL--in active support and in money.

When millions in donations did not roll in, methods for raising money had to be devised. Gutzon Borglum, the famous sculptor, designed a campaign button bearing the heads of La Follette and Wheeler in relief. These buttons were given to contributors at meetings and rallies during the campaign. "Emancipation Bonds" were printed in denominations of \$1 and \$5 to be sold to individuals and in larger sizes up to \$1000 for lodges and organizations.

The La Follette Committee was always hard-pressed for money. In September and October when La Follette and Wheeler

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started traveling, the financing of the campaign was on a day to day basis with collections at meetings, and sales of tickets and bonds barely ahead of expenses.

A writer in <u>New Republic</u> the week after election maintained that La Follette's campaign lost rather than gained votes, that he was stronger in September than in November. The writer did not attribute this to the Republicans and Democrats being able to buy more radio time or being more effective on the medium but simply because "he over-estimated his own strength and the preparedness of the average American mind, and conducted the campaign on the supposition he might be elected." His appeal was "too propagandistic and not sufficiently patient, informative, and educational."¹

President Coolidge spent a quiet month of August. Aside from his acceptance speech he made only one other worth noting. He talked to the National Fraternal Congress in Washington, August 29. He made a few non-political remarks about the basis of all fraternal ceremonies being of religious character. The talk may have been non-political but it gave the President front page newspaper publicity.

John W. Davis, the Democrat, was the only one to make a major speech between the acceptance speeches and Labor Day. He made one of his basic speeches at Seagirt, New Jersey, August 22. There he talked to a crowd estimated at 35,000 people. In this speech he condemned the Ku Klux Klan

¹<u>New Republic</u>, November 12, 1924, p. 257.

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ţ ÿ 1 1 - by name and challenged Coolidge to do the same so that it could be removed as a campaign issue.

Coolidge lived up to his sobriquet, "Silent Cal," and said nothing. Dawes mentioned the KKK in a speech the day after Davis' Seagirt speech. Dawes, speaking in Augusta, Maine, said he personally was opposed to the Klan but could understand why some men who lived in the lawless mining areas of southern Illinois had joined to restore law and order. The <u>New York Times</u> reported the crowd was not very responsive.¹

Davis reminisced about trying to get Coolidge to respond:

I did my best in that campaign to make Coolidge say something. I was running out of anything to talk about. What I wanted was for Coolidge to say somthing. I didn't care what it was, just so I had somebody to debate with. He never opened his mouth. Well, those were good tactics . . . protection tactics from his point of view.²

Labor Day marked the beginning of the strenuous campaigning. Coolidge and La Follette both made major speeches from Washington, D. C. Davis talked at Wheeling, West Virginia; Bryan was at Elk Point, South Dakota; Wheeler was in Boston; and Dawes in Evanston, Illinois.

It was one of the hottest afternoons of the summer in Washington. La Follette hestiated some about spending \$3,500 for the interconnecting telephone lines for a single

¹New York Times, August 24,1924, p. 1.

²John W. Davis, in an interview recorded in the <u>Oral</u> <u>History Collection</u>, Columbia University, p. 151. 2 i 1 1 - speech on radio when campaign funds were so meager.¹ He finally decided to open his campaign with the radio address. He spoke for thirty-five minutes to an audience throughout the country. It was estimated several million heard the talk because arrangements had been made to have loud speakers set up in public places to supplement the millions of home receivers. A week later La Follette said he had received thousands of letters commending him on his speech. He found there was almost an equal division between Republicans and Democrats of the letter writers who indicated past party affiliation--and over half of them said they were farmers or laborers.²

Bryan made his Labor Day speech from the front porch of a farm house in Elk Point, South Dakota. He hit the Republican administration for corruption, high tariff, and failure to aid agriculture.

Coolidge talked to a group of labor leaders in the capital on Labor Day and kept his talk away from controversial issues. On the following Saturday he made a speech at the unveiling of a statue of Lafayette at Baltimore.

John W. Davis got off to a faster start than either of his two principal opponents. After he made his Labor Day speech at Wheeling, he started on a western tour in his railway car equipped with loud speakers and radio jacks.

> ¹La Follette and La Follette, II, <u>op. cit.</u>, p. 1125. ²New York Times, September 8, 1924, p. 3.

-1 1 - Along the way he made frequent stops and talks. He was in Omaha, Saturday, September 6. The radio speech he made there before a large crowd was well received. He continued west with talks at Denver, Cheyenne, and Topeka. He was back in Missouri at Bunceton on September 15. There he received the greatest welcome of his trip.

At Bunceton, a giant hickory barbeque was held on the 3,000 acre farm of Arthur W. Nelson, the Democratic candidate for governor of the state. The hosts had prepared 13,000 pounds of beef, 3,000 pounds of mutton, and 14,000 watermelons--and still there was not enough food for all the people even with that in the baskets the farmers' wives brought. It was estimated 8,000 automobiles plus other conveyances had brought 50,000 hungry persons to the barbeque. Davis seemed in fine shape as he flayed corruption and special privilege, and called for lower rail rates. The speech was radiocast to the Middle West, and broadcast to the crowd from loud speakers as well.¹

Davis spoke in Des Moines on Monday, September 17, and appeared in Chicago the following day.

Coolidge stayed close to the White House and left most of the campaigning to others. One new feature in 1924 was what was called the Coolidge Caravan. The caravan consisted of seven automobiles and a truck which left Coolidge's birthplace, Plymouth, Vermont, September 9, and arrived in

1<u>New York Times</u>, September 16, 1924, p. 1.

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New York City, September 15. It was to leave the metropolis and travel to the West Coast by way of the Lincoln Highway. The truck contained a painting of Coolidge's birthplace. Herb Moore, a Vermont farmer, accompanied the caravan, and at frequent intervals stopped along the way to tell of Coolidge's boyhood and his rise to the White House. Quite fittingly, when the caravan started west on the Lincoln Highway, it was to be in Lincoln automobiles furnished by Henry Ford. It was expected that as the caravan approached a city it would be met and escorted into town as it was by 1,000 decorated automobiles when it came to New York City.¹

Back in New York City, the Democrats were trying to get some old-fashioned Tammany enthusiasm aroused by holding over 100 area demonstrations for Davis and Bryan. These meetings were complete with bands, red fire, and spellbinders.²

La Follette's next major move in the campaign after Labor Day was to invade New York for a giant rally at Madison Square Garden, September 18. He spoke before a crowd of 14,000 in the hall, to an unestimated number crowded around the loud speakers outside the Garden, and to a large audience over WEAF. La Follette called for the power of Congress to overrule a Supreme Court decision. He cited the need in the case of the Child Labor law.³

1New York Times, September 16, 1924, p. 2. 2<u>Ibid</u>., September 10, 1924, p. 1. 3New York Times, September 19, 1924, p. 1.

There was a distinguished company on the stage with him: Fiorello La Guardia, Norman Thomas, Arthur Garfield Hays, Mathew Woll, vice president of the AFL, Harriot Stanton Blatch, and the Reverend John Haynes Holmes.

The Senator received a resounding applause after he was introduced by Hays. It was ten minutes before the crowd would quiet down enough for La Follette to deliver his radio address. Because his usual delivery was energetic and carried him back and forth across a stage he had to learn to stand in front of a microphone for broadcasting. On this occasion he read a prepared speech.

About half the audience paid admission fees ranging from 55¢ to \$2.50. There were 14,000 seats, half of them free. Thousands of persons were outside listening through the loud speakers as mentioned previously. Ticket sales and collections brought in between \$12,000 and \$13,000 on this occasion. The costs for radio were $$1,295.^1$

La Follette was honored on the following Sunday, September 21, by the Steuben Society, a singing society with hundreds of thousand of members, generally of German descent. Eighteen thousand of them were gathered at Yankee Stadium. The Senator appeared as their guest and was honored by a selection sung by a 1,000 voice choral group.

Senator La Follette spoke at Mountain Lake Park, Maryland before starting a speaking tour of New York, New

¹New York Times, September 19, 1924, p. 1.

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Jersey, Pennsylvania, and Connecticut late in September.

Calvin Coolidge, in the meantime, made an occasional speech to a group on the White House lawn,or addressed a convention meeting in the capital. He spoke to the Holy Name Societies meeting over WCAP on September 21. Four days later he went out on the lawn to address several thousand druggists who had come to Washington for a national convention. Mr. Coolidge pledged economy at home and peace abroad. The same day Coolidge sent greetings to Philadelphia for the celebration of the 150th anniversary of the meeting there of the First Continental Congress.

Wheeler, during September, was shuttling between New York City and outstate New York. He gave a talk at Cooper's Union in the city on the sixth and then left on the following Monday for a six day tour which took him through Albany, Schenectady, Watertown, Ogdensburg, Syracuse, Rochester, Dunkirk, Buffalo, Newark, N. J., and Philadelphia. On the fifteenth he spoke at the Hotel Astor, New York City, and on successive days in Fittsburgh, Cleveland, Columbus, and Toledo as well as Cincinnati, and Chicago. It is not certain all these talks were broadcast but from a statement made later by Secretary Hoover on the amount of radic time the Progressives used, it can be assumed the major talks were.¹

¹<u>New York Times</u>, October 17, 1924, p. 3.



Governor Charles Bryan, the Democratic nominee for Vice President, was not used by his party as much as were Dawes and Wheeler by theirs. It is quite possible his speeches were likely to be too liberal to be given publicity outside his own section of the country. This is one point often passed over by observers of the 1924 election. Charles Bryan is usually dismissed as a pale copy of his famous brother. The nomination of Bryan is often passed off as aff attempt to take advantage of a famous name. No doubt there is some truth to this, but it is quite possible also that Charlie Bryan was more liberal than his ticket-even if he may have been a man of mediocre talent.

Davis, the Democrat, ended his September campaigning by spending two days in Charleston, Huntington, and Bluefield, West Virginia (25th, 26th) before going on to Washington and Wilmington.

The same night that La Follette held his big Madison Square Garden meeting, September 18, Charles G. Dawes was addressing 12,000 people in Chicago. The same day he had also been in Freeport, Illinois. He turned north through South Dakota and Minnesota, reaching Minneapolis on September 25.

The tempo of the campaigning was stepped up in October. La Follette left on an extensive trip in his special railroad car. His son, Bob Jr., and Dr. John Colver, a throat specialist, accompanied him. Basil C. Manly and Frederic

C. Howe went along to assist with the speeches; Sam Evans took care of the press releases.

It should be remembered La Follette was the oldest of the Presidential candidates. He was 69 years of age in 1924, Coolidge was 52, and Davis was 51. No doubt this made him plan his routine on speaking tours so that his strength could be conserved. He made it a rule not to attend receptions or social affairs on such a trip. He made few rear platform speeches; this was in contrast to Davis who made as many as possible. La Follette spent the mornings working on the speeches he was to deliver in the evening meetings.

Most of the La Follette meetings would start with an appeal for funds. Philip La Follette would begin speaking, if he were present, and would be followed by the Senator. Sometimes Bob, Jr. would speak. The father and two sons made an impressive team.

La Follette's October tour was a series of rousing meetings. On the sixth, he spoke in Convention Hall in Rochester to 4,800 in the hall, while 3,000 stood outside to listen to his speech of an hour and twenty minutes. The next day he was in Scranton, Pennsylvania talking about the Grundy "slush" fund the newspapers were hinting was being raised to "buy" the election in the state, for the Republicans.

Six thousand people waited outside the hall in Newark, N. J. when only 2,300 were able to crowd inside. At Detroit,

on the ninth, 7,500 jammed Arena Gardens. Most of them paid $50 \not e$ or \$1 a seat, and a tin plate collection brought in another \$1,000. The next day in Cincinnati, there were 5,000 inside the Music Hall and 5,000 outside to listen to his fifty-five minute speech.¹

The next stop was Chicago. There the Senator made one of the major speeches of his campaign to 10,000 people in the 35th Street Armory. He was introduced by Jane Addams. He spoke against "economic oligarchy," the concentration of wealth, and the abuse of financial power. He read his speech because he had already given copies to reporters.

On Monday, the 13th, La Follette was in Kansas City. He spoke over a radio network which covered Oklahoma, Kansas, and Missouri. In his talk he blamed the plight of the farmers on the rise of trusts, high tariffs, and the control of the railroads through interlocking directorates by dominant banking groups.

St. Louis honored La Follette on Tuesday with a parade during the day. At night, 10,000 turned out to hear him discuss foreign relations and how great financial interests had brought about a change in American foreign policy as defined by Washington and Jefferson. This speech was broadcast by a St. Louis station.

An incident occurred the next day in Des Moines which was never cleared up until this present time. La Follette

¹La Follette and La Follette, II, <u>op. cit</u>., p. 1130-1133. . 1 •

had a speech scheduled for Wednesday, October 15, in that city and wanted to have it broadcast over the local radio station. He was not granted time on the air. He immediately cried "monopoly" and said he was denied a right accorded others in like position.

Although the <u>New York Times</u> discounted the idea of a monopoly standing between La Follette and the use of the Des Moines station, and although Secretary Herbert Hoover said there was no basis for the charge, a reasonable explanation was never made nationally.

Hoover said of the 530 stations less than a dozen belonged to what Ia Follette called the monopoly--presumably Westinghouse, General Electric, and AT&T stations. The Des Moines station was independently owned.

He said,

I am glad to see that radio stations are giving opportunity to all speakers, and the records will show that no political speakers in this campaign have made as free use of radio in disseminating their views as has the Third Party in broadcasting the speeches of Mr. La Follette and Mr. Wheeler.¹

In the same issue of the <u>New York Times</u> it was reported that Senator Brookhart of Iowa, whom La Follette was supporting for re-election, was indignant that a radio station controlled by the Bankers Life Insurance Company had refused to broadcast La Follette's speech.

The implication seemed to be that one of the powerful insurance companies of America, which controlled a radio

¹New York Times, October 17, 1924, p. 3.

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station, had refused to allow the broadcast of one of La Follette's speeches because they wanted to keep him and his ideas off the air.

The monopoly charge made good material for La Follette when he spoke to the 9,000 people of Des Moines who gathered to hear his speech on "deflation of the farmers." He damned monopolies and praised Brookhart, Senator Dolliver, and James M. Pierce, publisher of the Iowa-Homestead.

The writer felt this Des Moines incident should be cleared up. Why was La Follette denied the use of the radio? The Bankers Life Insurance Company was kind enough to have photostat copies made of two contemporary accounts of the incident. One was the story which appeared in the <u>Des Moines Register</u> of October 14, 1924; the other was the article in <u>Bankers Life Bulletin</u>, a company house organ, of October 17, 1924. The two accounts have been reproduced below.

The Des Moines Register Account:

Davenport Radio Speech of La Follette

Kuhns says WHO Can't Make Arrangement to Use Air

La Follette headquarters late last night received the following telegram from the Palmer School of Chiropractic at Davenport.

"Use of WOC will be given to Senator La Follette Wednesday evening. Advise by phone or wire exact hour of his speech and other details as we will have to arrange program accordingly."

WHO, t Insuranc of the I impossit Senator 1 dent, wh-Presider. been arro rule rec use of th "The su the La Fo rules of starts at At that t let WOAW in Thict te WOAW in WORN IN Omaha. Execut the move "I ask Bob Hara yesterda necessar of the s "Mr. tau fried the sport of the second of th

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/ : WHO, broadcasting station of the Bankers Life Insurance Co. of this city, yesterday told officers of the La Follette headquarters here that it would be impossible to arrange to broadcast the speech of Senator La Follette, independent candidate for President, when he comes to Des Moines tomorrow night. President George Kuhns explained another program had been arranged for and that the Company has adopted a rule requiring at least three weeks notice for the use of the set.

"The suggestion that we add our program to that of the La Follette meeting is impossible because of the rules of the air," Mr. Kuhns added. "Our program starts at 7:30 o'clock and concludes at 9:00 o'clock. At that time we are compelled to get off the air and let WOAW at the same wave length as ours have it." La Follette's speech is scheduled for 9 o'clock.

"Davenport could broadcast the speech without conflict because of its shorter wave length."

WOAW is the station of the Woodmen of the World at Omaha.

Executives in the La Follette campaign here charge the move is discriminatory.

"I asked about using the set when Wheeler was here," Bob Haran, publicity director for the campaign, said yesterday. "At that time Mr. Kuhns told me it was necessary to give notice and I inquired about the use of the set in case we should get La Follette here."

HASN'T CALLED, HARAN SAYS

"Mr. Kuhns said he thought he had a program for the date we anticipated, but was inclined to believe it could be arranged. When I heard that La Follette was coming I told him at once and he said he'd call me_in the morning. He hasn't called yet."

"Today he told me he didn't feel he could disappoint his performers. We suggested that we would be glad to have them at the Coliseum and let them give their program as part of the meeting. We had already offered to make the installments necessary for broadcasting. Mr. Kuhns stood pat on the first excuse. I understand that they had two musicians and a woman to give 'movie chats' when it was first known that LaFollette would come here."

"Other officials of the campaign were quite outspoken in their belief that the refusal was actuated by partisan impulses. They suggested that there were only three major candidates for president and that even if a breach of the company's rules were necessary, it could hardly be used as a precedent, since Davis has already been here and Coolidge is not coming."

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ALLOWED DAVIS TO USE IT

In reply to this, Mr. Kuhns called attention to the fact that though his party affiliation is Republican, Mr. Davis had been allowed to use the outfit when he was here.

"We had notice thirty days before his coming," Mr. Kuhns said, "we have not refused and will not refuse the use of the station to anyone who gives us proper notice. We can't start breaking faith with the performers on whom we depend for our programs, however."

"When Senator Pepper was here, use of the station was denied him for exactly the same reason--we had received no notice. It seems to me this should set to rest the idea that the station was refused for partisan reasons."

"Some of the papers have attempted to make it appear that we refused La Follette simply because he is La Follette. WHO will always be available for broadcasting by anyone who will appeal to the public interest and who will give us three weeks notice."

The article in the Bankers Life Bulletin said:

Newspaper Statements on W-H-O Untrue

Newspapers have printed this week the statement that the Bankers Life Company refused to broadcast the speech of Senator Robert M. La Follette delivered in Des Moines on the night of Wednesday, October 15. This statement was untrue. The Company did refuse to cancel its scheduled program for that night when a request from the Iowa La Follette headquarters for the use of the Bankers Life broadcasting station was made just a few days prior to the date when the speech was delivered.

Station W-H-O arranged to crowd its program for that night in order to give ten minutes on the air to Senator La Follette and that amount of time was offered to and refused by the La Follette headquarters for Iowa.

Programs for Station W-H-O are invariably fixed at least two weeks in advance. The station recently broadcast a speech by John W. Davis, Democratic candidate, for which arrangements were made thirty days in advance. Still more recently it was found impossible to broadcast a speech by Senator Pepper, Republican campaigner from Pennsylvania, because of too short notice from Republican campaign managers.

We give you these facts so that you may use them if the subject comes up for discussion in your work.

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When one reads about the charges by La Follette that monopoly kept him off the air in Des Moines, it would seem one of two things must have been true: either La Follette was misinformed as to the circumstances or he was obsessed with the idea of monopoly.

Station WHO was on the air only one and one-half hours. It was forced to yield the air to another station on the same wave length at the very hour Senator La Follette was to begin his speech. Two different stations in nearby towns could probably have carried the speech. The wire connection expense to the outside towns would have been greater than to WHO.

Furthermore, it is possible the newspaper wanted to play up the story more than it was worth. Mr. Edwin P. Leader of Bankers Life Company recently said: "The competition between newspaper and radio in that period when newspapers saw the new medium as a rising threat to their dominance in local mass communication undoubtedly also was a contributing factor to the handling of the incident."¹

When Mr. Kuhns said he did not feel he could disappoint his performers he probably was sincere. Most of the small stations at this time were depending on volunteer talent. WHO was a comparatively new station, less than a year old, so it probably had not developed a very large list of performers who would be willing to work free of charge.

¹Edwin P. Leader, letter to the writer, January 16, 1962.

After the Des Moines incident, La Follette went on to Minneapolis where he made a dramatic roll call on Coolidge's record in government--much to the President's discredit, of course.

The next day, the seventeenth, the Senator was at Sioux Falls, South Dakota speaking to a crowd of 5,000 inside the hall and more than 1,000 outside. La Follette endorsed Senator Norris for re-election. He also urged the repeal of the Esch-Cummins Railroad Act, and discussed his alternate plan. The seat sale at this meeting totaled \$1,639 and the tin plate collection was \$887. The expenses were \$1,514.70 including \$900 for amplifiers and radio broadcast over WOAW.

On the day the Senator made his talk in Omaha, his wife spoke over WJZ, New York, on "Why the Homemaker Should Vote for La Follette." She was said to be a good campaigner.

Also back in New York City at about this time, La Follette forces were beginning to run into trouble. A La Follette Benefit at the Sam H. Harris Theater was planned-but did not materialize as planned. Tickets had been sold for a show at prices of \$2.75 to \$3.30. The money was to go into the campaign chest. A number of well-known vaudeville artists were to appear on the stage. When the curtain went up they were not there. Lesser known artists were there in their places.

Isaac McBride made a campaign speech, a collection was taken, emancipation bonds were sold. The audience began to

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Finally, a representative of the theater quieted the people down by promising to refund the price paid for tickets. The benefit had been arranged and advertised in good faith but some of the artists booked failed to appear because their managers forbade them to take part in a political meeting.¹

Dr. Gleason Archer in his admirable histories of radio has said the use of radio in the campaign of 1924 was of historic value in the development of networks. The author thinks a stronger statement can be made validly. Companies interested in the development of network broadcasting deliberately made use of political conventions and the campaigning to test the practicability of radio networks. It was especially valuable at this time to know how well interconnection of stations could be effected, for the commercial possibilities would be tremendous.

Some men were thinking even beyond interconnection of stations by AT&T long distance wires. AT&T held a practical monopoly on wire interconnection because the only other possible country-wide wire network would be by telegraph wires. This had been tried by WJZ and WGY with Western Union and Postal Telegraph wires but the results were not as satisfactory as with telephone wires.

¹New York Times, October 10, 1924, p. 2.

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The other possibility some men were thinking about was to use short wave transmission for relay between stations. The station receiving a short wave transmission could then rebroadcast it by regular wave. Dr. Frank Conrad of Westinghouse had been working on this for some time.

A <u>New York Times</u> article in June, 1924, just after the Republican Convention, discussed the possibility of using short wave for reporting the Democratic Convention by radio the following week.

Last winter the Radio Corporation of America and Westinghouse Corporation relayed a New York program by short wave length radio to seven other stations from coast to coast. The short wave length was converted into regular broadcasting frequencies and rebroadcast, covering virtually the whole nation. The engineers of these companies decided, however, that it would be hopeless to attempt a repetition of this exploit during the convention. What was done at night in mid-winter was out of the question during daylight in the summer. All the relaying between the stations will take place this time by wire.

This was the situation in late June and early July, 1924. Yet less than three months later (October 11, 1924) occurred one of the most astounding experiments in broadcasting up to that time. President Calvin Coolidge participated in it in a "non-political" talk; but what talk by an incumbent President running for re-election can be nonpolitical? The event had all the drama of a world-wide speech by the President of the United States plus the public display of a scientific innovation. The event has seldom been mentioned in radio history, and probably never in political history.

¹New York Times, June 17, 1924, p. 2.

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The event was an international banquet held in celebration of the fifty-fifth anniversary of the H. J. Heinz Company. It was not just an "international banquet," singular, but sixty-five radio banquets held simultaneously in the United States, Canada, England, and Scotland.

Ten thousand men and women in the employ of the Heinz Company sat down in the sixty-five banquet halls to identical menus and listened to the same speeches coming from Pittsburgh and Washington by means of radio receivers and loud speakers.

The broadcasting arrangements for the speeches at the main banquet in Pittsburgh and the speech of President Coolidge from the White House in Washington were all directed by Westinghouse engineers. Speeches from the main meeting in Pittsburgh were broadcast directly from KDKA. President Coolidge's speech was carried by direct wire from the White House to KDKA.

Station KDKA broadcast the banquet speeches both long wave and short wave. The Westinghouse station in Hastings, Nebraska picked up the KDKA short wave and rebroadcast it for West Coast stations to receive and rebroadcast.

The program was also repeated by Westinghouse stations KYW, Chicago, and KBZ, Springfield, Massachusetts. In Great Britain the pickup point was the H. J. Heinz office in London.

The banquets were in memory of the founder, Henry J. Heinz, but there seemed to be a political overtone, even

if accider. speakers w-James J. Da and Calvin Howard Heir. and Charles spoke. Up to breadcast h pany offici Tany more a The H the talk fo quent appea pagadity a Coolidge h 1 of the sol October 15 White Hous len of the In t -mportant States Cha new Washir reviewed (l-<u>r.</u> Stober 1. if accidental or coincidental. The three most prominent speakers were high Republican officials: Secretary of Labor, James J. Davis; Senator George Wharton Pepper, Pennsylvania; and Calvin Coolidge, President of the United States. Mr. Howard Heinz, president of the company and son of the founder, and Charles M. Schwab of the Bethlehem Steel Corporation also spoke.

Up to this time, no more extensive or elaborate radio broadcast had ever been attempted.¹ It was believed by company officials that millions of persons in America, plus many more abroad, heard the broadcast.

The President made only two major radio speeches after the talk for the Heinz banquets. However, he did make frequent appearances before groups in Washington or in official capacity at dedicatory ceremonies. In the line of duty, Coolidge helped dedicate the Veterans Memorial in memory of the soldiers of the First Division in Washington, October 15. On October 29, he sat down to breakfast at the White House with fifty representatives of the advertising men of the country.

In between these two dates, he delivered his most important political speech to date. This was to the United States Chamber of Commerce dinner at the dedication of the new Washington headquarters of the association. Mr. Coolidge reviewed the record of his party on taxation and legislation--

¹<u>The 57 News</u>, house organ of the H. J. Heinz Company, October 14, 1924.



which he said had been designed to promote prosperity. As he had done in the Heinz banquet speech, he participated in a new radio experiment. He spoke for forty-five minutes over the greatest land wire interconnection of radio ever attempted. AT&T through wire connections to twenty-two stations coast-to-coast made it possible for Coolidge to talk to the world's largest radio audience.¹

Calvin Coolidge sat at his desk in his White House office and watched the election approach without any apparent concern. Other members of his party, and Democrats and La Follette followers as well, worked faster and harder to bring the campaigning to a successful climax.

La Follette spent the last two weeks in a whirlwind of speeches in which he continued to flail monopolies, railroads, and the high tariff. On Tuesday, October 21, he talked to 3,000 in the gymnasium of Augustana College in Rock Island, Illinois. Wednesday, he was at the Shrine Temple in Peoria telling 2,000 about Mellon's "secret tax refunds." He said "Coolidge saves at the spigot and wastes at the bunghole" by trying to save money and reduce expenses and taxes by "cheese paring." La Follette said what needed to be done was to reduce expenses in military spending.²

He continued his travels, visiting Grand Rapids, Michigan, before swinging east for the last days of the campaign.

²La Follette and La Follette, II, <u>op. cit.</u>, p. 1145.

¹See Appendix E for a list of the radio stations used in the Coolidge Chamber of Commerce speech, October 23, 1924.
1 ļ i į 1 7 • The La Follette team began to step up pressure in New York state which was considered pivotal--the weight of the state's electoral votes might swing the election one way or the other.

Professor John Dewey addressed a La Follette rally of college men and women at Terrace Garden in New York City. Students from Columbia University, Barnard College, New York University, Hunter College, City College, and Union Theological Seminary crowded in to hear him. This was October 23.

La Follette speakers also spread out over upstate New York. Congressman James A. Fear (Wisconsin), Zona Gale, Oswald Garrison Villard, and John Haynes Holmes, D. D. were all on speaking tours to try to win the state for the Senator.

Mrs. Robert La Follette was busy with speaking engagements in Binghamton, Watertown, and Syracuse.

In the meantime Senator Burton Wheeler, La Follette's colleague, was returning east from a long auto trip in which he had gone as far as California. This western tour had climaxed in a meeting attended by 12,000 in the bowl at Los Angeles. It was a highly successful meeting at which \$7,500 in contributions had been collected.

Wheeler had been on the attack, branding Davis as the "Democratic Wall Street candidate," slashing at Dawes for his banking record, and calling the Republican administration 1 •

venal, corrupt, and careless of the rights of American citizens. He told and retold the stories of Teapot Dome and Harry Daugherty.

He had had to stop in Topeka to try to smooth out a disagreement between Kansas progressive leaders. He spoke in Kansas City, Sedalia, and St. Louis on successive days. On October 29, he was in Flint, Michigan blasting Secretary Hughes, the next day he hurried to Toledo, Ohio. On October 31, he spoke in both Youngstown, Ohio and Newcastle, Pennsylvania. From there he went to New York for a great rally in his honor at Durland's Riding Academy. His final speech was at Baltimore.

Just before La Follette was to begin his final week of campaigning, the Internal Revenue Service, under a new policy, released the names and amounts of income tax paid by individual tax payers. This added fire to the Senator's thundering charges and embarrassment to many prominent Republicans because now the public had direct evidence of the tremendous incomes of some of that party's members. The publication of the lists just before the election had not been politically expedient.

La Follette began the last week of the campaign with a tremendous meeting in Baltimore, where 12,000 crowded into the Fifth Regiment Armory to hear him attack the influence of trusts on legislation. Tuesday he was at the Clermont rink in Brooklyn where 4,000 came to listen, and about half of them paid 50¢ to \$2.50 for seats.

La Fe in action i Senator spoi Schenectady, treadcast by "Fighting Bo (this includ ation over i interruption by radio sta Thursd Nechanics Ha Senator Davi perialistic broadcast o The S home town, he said: " States. Ca White House The a 4. in Clev the grave o l<u>New</u> Scllette a Street and Secure con-2. 2. j

La Follette's charges of monopoly in radio were answered in action if not in words on Wednesday, October 29. The Senator spoke to 3,000 people in the State Theater in Schenectady, the home of General Electric. This speech was broadcast by WGY, a GE station, a "radio trust" station. "Fighting Bob" very roundly took water power trusts to task (this included GE). All this excoriation of the big corporation over its own station without attempt at censorship or interruption forestalled any more charges of arbitrary action by radio stations.¹

Thursday, La Follette addressed 9,000 people in Mechanics Hall, Boston. The speech, in which he endorsed Senator David Walsh of Massachusetts and attacked the imperialistic policies of both parties in Latin America, was broadcast over a New England network.

The Senator invaded Secretary of the Treasury Mellon's home town, Pittsburgh, the next day. In Carnegie Hall there he said: "Andrew Mellon is the real President of the United States. Calvin Coolidge is merely the man who occupies the White House."²

The aging man concluded his campaign where he began it, in Cleveland. With true sentiment, he laid a wreath on the grave of Tom Johnson, Cleveland's great reform mayor. On

INew York Times, October 30, 1924, p. 7, said La Follette attacked GE as "a monopoly closely allied with Wall Street and with the water power trust which is seeking to secure control of the water power of America."

²La Follette and La Follette, II, <u>op. cit</u>., p. 1145.



this last day La Follette made his last radiocast speech of the campaign. It was before a crowd of 15,000 people. After the speech, he traveled home to Madison to await the outcome.

Davis and the Democrats the Last Two Weeks

Davis seemed to spend much of the last two weeks before the election wandering about Kentucky and Tennessee rather profitlessly. He did make one radio speech over WLW, Cincinnati, on October 24, before he returned to the New York area. Possibly the Democratic candidate, who did not have the fiery delivery of La Follette, and who could not afford to sit back as imperturbable as Coolidge, began to realize the election campaign was as the <u>New York Times</u> said "free from popular excitement" with no sharp issue between parties and that the "personalities of the leading candidates were not such as to kindle animosities or provide fears."¹

The Democratic Party, however, tried to whip up interest in their candidates during the closing days of the campaign. Robert W. Wooley, Chairman of Publicity for the Democratic National Committee, announced Mr. Davis would make radio broadcasts from Louisville, Cleveland, Jersey City, Brooklyn, New York, and other cities during the last two weeks of October. The party was interested in how far away the speeches were being heard, and what impressions the listeners had of the talks.

1<u>New York Times</u>, November 2, 1924, p. 6.

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To encourage listeners to write in to the Publicity Bureau, a prize of a "handsome radio set" was to be awarded to the person who sent in the best fifteen word statement of why Mr. Davis should be elected President, accompanied by a statement not exceeding fifty words of some striking thing in one of Mr. Davis' speeches "caught by radio . . . and the time it was received over the radio."¹

No follow-up newspaper story was found which commented on the interest stimulated by the offer of the handsome prize.

Another idea to attract attention to the Democratic party was almost as amateurish as the radio prize contest. The party publicity department decided to setup a radio station in a show window of Aeolian Hall in midtown New York so passersby could see a radio station in operation--and politicans campaigning. On October 20, a Democratic Rally was held there with the WJZ studio, the engineer's control room, and the reception room in plain view of persons standing outside on the sidewalk. The leading speaker was State Senator James J. Walker (later Mayor Walker) who criticized Republicans in the Assembly who did not support Governor Smith's reform program.

Musical programs and regular features of WJZ were also broadcast from this show-window studio. It was in operation all week. On the second day, someone thought of putting

New York Times, October 21, 1924, p. 4.

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loudspeakers on the outside so the crowds could hear as well as see the programs.

The Democratic political programs broadcast from WJZ and its sister station, WJY, did not seem to show much last minute urgency or enthusiasm--or very realistic planning.¹

Judging from the title of some of the talks, they must have been pretty dry. For example, Anne Mathews, Register of New York County, made a radio speech "Matters of Special Interest to the Home Woman in the National Campaign." On the evening of October 23, Augustus Thomas talked on "The Foundation of the Constitution."

Thomas E. Rush, president of the National Democratic Club, went to the WJZ microphone at the prine time of 8:00 P.M. Saturday night and delivered what must have been an absorbing oration entitled "The Vicissitudes of a Practical Politician."

Only one or two incidents showed a flicker of newsworthiness or of imagination. One happened on the New York City municipal station, WNYC. The station was operated to keep the citizens informed on municipal matters and for incidental, non-partisan entertainment. One night during the last days of the campaign, one young lady entertainer finished her act and then spoke into the microphone saying, "Now good night, and don't forget to vote for Davis."

Of course, the city officials in charge of the station, all Democrats probably, had to appear shocked. They called

1<u>New York Times</u>, October 19, 1924, p. 6.

Miss Mullen, the entertainer, before them to answer for her indiscretion. With great charm and apparent innocence, she said she did not realize she was doing harm. She was forgiven. There was no punishment.¹

All during the campaign the Democrats had been charging that Pennsylvania Republicans under Joseph Grundy had been raising a secret "slush" fund to "buy" the election for their party in the state. Several front page newspaper stories appeared but Senator Borah and his Special Committee to investigate campaign contributions never made an issue of the charges. During the last days before the election the Democrats attempted to contrast the sacrifices one poor woman made to contribute to the Democratic National Comsinister machinations of the Grundy crowd and their "slush" fund.

Mrs. Jessie B. Black of Mansfield, Ohio endorsed a check for \$57.50 which she received as her dead son's war insurance and she sent it to the Democratic National Committee as a contribution to the cause the party was fighting for. So it was explained.

The attempt of the Democrats to hold up the purity of motive of the poor woman in contrast to the selfish motives of the Republicans did not seem to have much effect on the election, for the GOP carried Pennsylvania.

¹New York Times, October 19, 1924, p. 7.



Candidate Davis spent the last week in the vicinity of New York City, hoping to win enough votes to assure him the state. Al Smith had agreed to run for re-election as governor after he failed to win the Presidential nomination. Smith was tremendously popular and always ran ahead of his party. It was hoped the popularity of Smith plus the sincerity of Davis would win the state for the Democrats.

Davis and Smith appeared on the platform together in Carnegie Hall, November 1, the Saturday night before election. Their pleas for support of their ticket were broadcase from WJZ, New York, and were interconnected with WCAE, Pittsburgh, WMC, Memphis, WRC, Washington, WTAS, Elgin, Illinois, and WHAS, Louisville.

On Monday, election eve, Davis made his final speech from WEAF, New York at 9:15 P.M. A network of stations was connected to WEAF: WCAP, Washington; WGY, Schenectady; KDKA, Pittsburgh; KFKX, Hastings, Nebraska; KSD, St. Louis; WMC, Memphis; WGN, Chicago; and it is quite likely most of the Pacific coast was able to hear rebroadcasts of the short wave transmission from the Westinghouse station in Hastings.

Bryan spent the last days before the election touring and speaking in southern Illinois, Ohio, and Indiana.

Many endorsements were published during the last few days also. Twenty-two prominent professors said they were for Davis as the only means of getting into the League.

Forty-seven college presidents announced for Davis as did also eight well-known former Republican women.

Republicans Last Drive for Victory

The efficiency of the Republican organization was especially evident the last two weeks before election. The Republicans had more money to spend than the Democrats or the La Follette party and they knew better how to spend it for the best publicity value.

The GOP took over two stations in the East completely for political broadcasting; they staged three political rallies with all the glamor Hollywood and Broadway could contribute; and they kept Charles G. Dawes on the radio every night, outside New York, relentlessly hammering away at both opposing parties.¹ For his part, President Coolidge made his Chamber of Commerce speech (as has been mentioned) over an impressive array of twenty-two stations, and then came back on election eve to urge citizens to go to the polls--and this was over the largest network ever attempted to that date.

Republicans took over radio stations WAHG, Richmond Hill, Long Island and WBHF, Providence for two weeks previous to election. Political talks were made morning, noon, and night from Republican headquarters at 2 West 46th Street,

¹<u>New York Times</u>, October 24, 1924, p. 5, gave the Dawes itinerary as Philadelphia, October 21; Wheeling, 22; Wilmington, 23; Newark, 24; Brooklyn, 25; and both Albany and Rochester, October 27.



New York City and broadcast over the two stations.¹

The first program featured Secretary of War Weeks; Frederick Hicks, eastern campaign manager; John Q. Tilson, chairman of the Speakers Bureau; former Congressman James Francis Burke; Helen Varick Boswell; and Charles D. Hilles, Vice Chairman of the National Committee. The speakers told how a political campaign was conducted. Musical numbers were interspersed.

In commenting on the idea, Tilson said: "This step in taking over two large stations is the last word in effective radio campaigning. With practically no expense, the Republican party in the eastern district has developed an organized radio campaign which exceeds similar efforts of other parties."²

The first of the Republican radio rallies was held, October 29, in Aeolian Hall, WJZ, and was broadcast over a total of seven stations from New York to Oakland, California. Dr. Nicholas Murray Butler, president of Columbia University, John Hays Hammond, and Luther Little were the principal speakers.

The next evening the Republicans broadcast a more popular program--a Midnight Theatrical Revue. This innovation--a radio political entertainment show--featured stars

¹See Appendix F for a sample day's program.

²New York Times, October 20, 1924, p. 5.



John Drew, Al Jolson, Elsie Ferguson, and Amelia Bingham. The program lasted from 11:30 P.M. to 2:00 A.M., the next morning.

On Saturday night, a Republican Rally was broadcast from the stage of the Metropolitan Opera House. This was sent out over a network of sixteen stations.¹ Secretary of State Charles Evans Hughes and New York gubernatorial candidate Theodore Roosevelt, Jr. were introduced by General Charles Sherrill as the speakers of the evening. Band music was used to heighten the enthusiasm of the audience, and to entertain the radio listeners.

On election eve, Davis made his last speech, as has already been related. He went on the air at 9:15 P.M.

At ten o'clock President Coolidge also made an election eve speech. It was non-partisan, merely a request of the President of the United States that all qualified voters go to the polls the following day and make their choices of candidates.

Although the President had broken all records for the number of stations used in a network with his Chamber of Commerce speech only ten days before, this night he set another record by talking over twenty-six stations coast to coast to a potential audience of twenty to thirty million people.²

¹See Appendix G for a list of the stations.

²See Appendix H for list of radio stations used for **President Coolidge's** election eve speech.

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AT&T engineers planned the interconnections carefully and stationed several hundred technicians and repairmen at intervals along the circuit through the Rockies so there would be no interruption through storm damage.

It was reported after the broadcast that many listeners were touched by the President's closing words. They said there was personal warmth in the way Mr. Coolidge said: "To my father, who is listening in my old home in Vermont, and to my other invisible audience, I say 'good night'."¹

¹New York Times, November 4, 1924, p. 4.



CHAPTER XI

WHO IS TO PAY FOR BROADCASTING?

The political campaign had proved the practicability of interconnecting radio stations in a coast-to-coast network. The future seemed bright for national broadcasting. But one question had not been settled which had been plaguing the industry since 1920.

The question was the same one <u>Radio Broadcast</u> magazine asked in its first editorial in its first issue: "Who is to pay for broadcasting?"¹

The question became increasingly bothersome as operating costs rose. As time went on, more expensive equipment was needed, performers asked for pay, ASCAP demanded fees for the use of their copyrighted music over radio, the public's appetite led stations to extravagant heights in covering top sport, news, and entertainment events of the day. Who was to pay for all this?

The principal methods of financing radio suggested in the press, by leaders of the industry, and by expressions of the public can be classified under a few heads.

¹Radio Broadcast, May, 1922, p. 1.

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The cost of broadcasting could be paid by:

- 1. Manufacturers of radio equipment;
- 2. Newspapers;
- 3. Endowments;
- 4. General contributions to a common fund;
- 5. Municipal financing;
- 6. Voluntary contributions to individual stations;
- 7. Tax on tubes or equipment;
- 8. H. B. Kellogg's plan;
- 9. Wired home radios;
- 10. Special receiving sets;
- 11. License fee on receivers;
- 12. Advertising.

There was no question the public wanted radio, for it had become a part of America's life and entertainment by 1924. But how was it to be paid for? Let us consider the various suggestions.

By Manufacturers of Radio Equipment

This is the method which occurred to Mr. Davis of Westinghouse when he read the Horne Department Store ad in the Pittsburgh newspaper. He thought the manufacturers of radio equipment could afford to maintain broadcasting stations because it would encourage people to buy receivers to hear the programs. The idea was good at the time and worked for two or three years. General Electric, RCA, and a few other manufacturers followed the example of Westinghouse and built stations. But certainly all of the rest of the 3,000 large and small manufacturers did not support radio stations.

Furthermore, a manufacturer soon found he needed more than a phonograph and a few records and a 50 watt or 100 watt transmitter. He needed the many other expensive components of broadcasting enumerated here before.

Broadcasting expense became each year more difficult to write off as advertising and still be realistic. Financing by a manufacturer's subsidy served the purpose of broadcasting in the early years, but now it was too great an expense to be borne by these companies as the art became perfected and the costs became greater.

By Newspapers

Some of the nation's great newspapers were pioneers in broadcasting: the <u>Detroit News</u>, the <u>Chicago Tribune</u>, the <u>St</u>. <u>Louis Post Dispatch</u>, and the <u>Kansas City Star</u>, to mention a few. All of these newspapers operated radio stations without income for several years. What were their motives? How long could they afford to do it?

If there was a selfish motive for newspapers going into broadcasting in the early days, it might have been for selfprotection. Radio was a possible competitive medium of news dissemination. A far-sighted newspaper publisher might decide to get into radio early, just in case it turned out to be a competitor.



Nevertheless, the press-owned radio stations operated in the public interest furnishing news, information, and entertainment at a considerable cost to their owners. In the case of the <u>Detroit News</u> we saw there was no revenue for five years, and no net profit for fourteen years. This was a situation only well-financed newspapers could endure. This was not a practicable method, generally speaking, for financing radio.

By Endowment

The radio industry could be supported much in the same manner as a library or a museum, in the opinion of some persons.¹ It was thought powerful stations could be erected and maintained at costs not prohibitive when compared with other institutions designed to do as comprehensive work. This cost, it was said, would be no more than that of a reasonably sized library and would do as great an educational job. Wealthy citizens might be encouraged to invest (or contribute) part of their excess wealth for this public good. This idea seemed to stress the educational aspects of radio. To a limited extent radio stations could be and probably were financed this way, but the general public wanted popular and light entertainment on radio. Educational radio would satisfy only a limited audience.

¹Archer, <u>History of Radio to 1926</u>, <u>op. cit</u>., pp. 255ff.



By Contributions to a General Fund

The originator of this plan evidently had in mind a drive for funds such as a Community Chest or a Red Feather Drive.¹ From this fund contributions would then be made to qualified stations to pay for operation and program expenses. Necessarily this would mean broadcasting would be a nonprofit venture. This would in turn mean that eventually ownership would reside in the general fund, for there would be no reason to operate a station otherwise than to practice the art for a very limited income. The general fund would have to be managed by a community board which would appoint operating managers. If the board set program policies the situation might not be as pleasing to the public as it might desire. The situation promises confusion and bickering.

By Municipal Financing

An editorial in <u>Radio Broadcast</u> (May, 1922) suggested municipal financing as a way to pay for radio. The magazine assured its readers that after they thought over the idea it would not seem strange even to those who had no socialistic tendencies.

The magazine pointed out that New York City was spending large sums of money each year in supporting free lectures given on various topics of interest. The average attendance at one of the lectures was two or three hundred persons.

¹<u>Radio Broadcast</u> magazine, May, 1922, pp. 3-4; also Banning, <u>op. cit.</u>, p. 94.



Through a broadcasting station several thousand might be able to hear the same thing. The implication was the cost would be no greater. The magazine writer suggested two or three stations might be necessary in New York City to provide the different kinds of entertainment and educational lectures to satisfy many inhabitants with diverse interests.

By Voluntary Contributions to Individual Stations

Many radio stations without revenue from advertising in the early days, or without a direct connection with the radio industry tried to help meet expenses by seeking voluntary contributions from their listeners.

Station WHB, Kansas City, sold imaginary seats in its "Invisible Theater." About \$3000 was raised in this way. This was only a temporary help, of course.¹

The telephone company station in New York, WEAF, when hardpressed to pay for talent on sustaining programs offered to furnish air time free to a group which proposed to raise money to hire outstanding artists to appear on radio. The group, known as the Radio Music Fund Committee, was composed of high-minded and public-spirited men interested in upgrading the quality of radio programs. Their money-raising effort did not succeed.

Bruce Barton wrote in <u>American Magazine</u> for August, 1922, about the response of listeners to radio church services:

^LRobert J. Landry, <u>This Fascinating Radio Business</u> (Indianapolis: The Bobbs-Merrill Co., 1946), p. 45.





By a Tax on Tubes or Equipment

Several plans were presented in the Twenties based on levying a tax on radio tubes and on radio equipment in general. Sometimes this tax would be assessed against the manufacturer's sales, sometimes the tax would be collected at the point of sale, a direct tax on the consumer. However levied, it would be paid by the owner of the receiver, directly or indirectly. The widest variance in the plans came in the method of dispersal of the money.

David Sarnoff, of RCA, thought there were too many radio stations--too many small stations which were poorly equipped, badly managed, and were guilty of inferior programming. Sarnoff favored fewer stations, stronger stations, better financed and better able to do a good job of programming. He called them "super stations."

Sarnoff believed a non-profit broadcasting company of national scope could operate twenty-five or more super stations and broadcast suitable programs to the whole country. His plan called for radio equipment manufacturers, wholesalers, and others connected with the industry to pay two


per cent of their gross sales to this central broadcasting company to maintain a superior radio service. Based on estiments of the 1923 business it was believed the two per cent levy would bring in \$780,000 for that year.

By the Kellogg Plan

Youthful H. D. Kellogg, Jr., won a \$500 prize <u>Radio</u> <u>Broadcast</u> magazine paid for the best essay on the question of who should pay for broadcasting.¹

The substance of Kellogg's plan was that the public should pay for radio through a \$2 tax stamp on radio vacuum tubes and by a 50¢ tax stamp on radio crystals. He estimated \$18,000,000 would be raised this way. He would have this paid to the federal government which would apportion the money to twenty-five or fifty super stations throughout the country.

It is not known how Mr. Kellogg would have had the super stations chosen, whether they would be privately or government owned. Mr. Kellogg never had the pleasure of seeing his brain child given a trial.

By Wired Home Radios

A system of central receivers with home radios connected thereto by wire, for a fee, was another suggested method of financing radio broadcasting. This type of receiving has been used in this country but not to the

Radio Broadcast, May, 1925.

extent it has in Britain and Europe where it has been quite popular. There were so many transmitting stations in America in the early Twenties and so many receivers capable of tuning in one or more of them that this plan would not have been accepted readily by the public.

By Special Receiving Sets

A subscription plan to finance radio would have been activated through special receivers capable of receiving special broadcasts. By special here is meant any general method of sending a signal so scrambled or altered it could not be received except on a set designed to "unscramble."

This is the principle being followed in many of the Pay TV experiments in the 1960's. In one way or another, the subscriber is the only one with a set capable of receiving the broadcast.

The drawback to this system is that as long as there are enough suitable programs being broadcast free there is little inducement to subscribe to a service.

By License Fees on Receivers

This proposition which is the basis of support of the British Broadcasting Corporation has never received the support in this country necessary to put it into effect. The American public really was never so dissatisfied with the radio programs they received that they would welcome better fare at the cost of a tax on the radio set. Advertisers took over soon after the national hookups used in the election campaign of 1924 proved the practicability of national broadcasting and showed what tremendous coastto-coast audiences could be induced to listen to a radio program. From then on programs increased in popular appeal, in range, and in elaborateness.

Furthermore, few politicians would want to risk their futures sponsoring a bill levying a tax on such a widely accepted form of entertainment.

By Advertising

Finally advertising seemed to be the only possible means of financing radio. AT&T believed this to be true and consequently established WEAF as a toll station in 1921. This toll method, the phone company said, was restricted under patents owned by AT&T to their own stations, to stations owning Western Electric transmitters, and to stations especially licensed by AT&T.

This does not mean that advertising in some form or other had not been tried before on radio, but that WEAF was the first to be built for the express purpose of selling radio time as a commercial venture.

Other stations in the early years had done a certain amount of advertising, either formally or informally. It will be recalled that Dr. Frank Conrad borrowed phonograph records from Hamilton's Music Store in Wilkinsburg for broadcasting over KDKA. For the use of the records he

mentioned the name of the store. That was advertising. KDKA existed to spread the name of Westinghouse as a manufacturer of radio receivers, with the hope of selling sets through the publicity. WGY, the General Electric station, was maintained for the same reason.

Charles Austin operated an experimental radio station at Portland, Oregon in 1921. He sent out phonograph music nightly for sailors at sea. One day Clyde Freeman, manager of the Portland Remick Song Shop, brought Austin a new phonograph and a supply of the latest records of jazz, dancebands, and classical music.

In return for the phonograph and records, Austin made an announcement before the playing of each record. He told the name of the record, its identification number, on what make phonograph played, and where the record could be obtained. The music shop reported there was a good response in the demand for records.¹

Shurick reported that Arthur B. Church sold radio parts to "hams" through station 9WU in Lamoni, Iowa as early as 1915. He also said the <u>Jersey Review</u> in May, 1920 leased time from WAAT for news and music twice a week at \$35 for two hours. Shurick gave another example of early advertising over WAAT: the <u>Jersey Journal</u> broadcast 1922 New Year's Greetings over the station from midnight to 1:00 A.M. for \$50.²

¹<u>Radio News</u>, October 1921, p. 281.

²Shurick, <u>op. cit</u>., p. 155.

The idea of selling advertising on the air to support a radio station became accepted only gradually. The account John Gambling gave of the beginning of advertising at WOR, the station owned by the Bamberger store of Newark, is not untypical:

The growth of commercials on WOR and I presume that's paralleled by most other stations, is kind of interesting. It started when Macfadden came on with these exercises. He <u>paid</u> a certain amount a week to put them on, and in return was allowed to publicize his afternoon paper, the <u>Evening Graphic</u>. But it was sort of a mutual agreement if he would pay enough to remunerate the station for the use of the equipment and so on (it wasn't exactly a commercial program as we know it today) that we would allow him to publicize his newspaper.

One of the first sponsors we had was a shoe shine parlor outfit--Klein's Shoe Parlors. I don't know whether they are in existence today. They called them the Klein's Serenading Shoemakers and Phil Cook did an act for them. It was many years before they allowed a sponsor to name the price of an article -why I've never been able to find out. Bambergers would not allow any price to be mentioned for quite a few years. They were slow coming to the whole idea of sponsorship. The Bambergers'--Louis and Edgar Bamberger--idea at first of a radio station was to publicize the store, but secondly, and not very far behind firstly, was public service. They very reluctantly came into the commercial. Frankly it was when the station began to be very expensive to run, and they had to find some income because they just couldn't afford out of the advertising budget, to support a whole floor in the Times Square Building plus the staff and plus the transmitter, and so they began to take on so-called sponsors. But they were very reluctant to do it. Even our stationery had on the bottom, "This is a non-commercial station.

Walter C. Evans, manager of Westinghouse station KYW in Chicago, said change in advertising techniques came about gradually; the change from the indirect to the direct

¹John Gambling in an interview recorded in the <u>Oral</u> <u>History</u> Collection, Columbia University, pp. 21-22. advertising was the result of pressure from the advertising agency as well as from the advertiser. He said at first the stations opposed the mentioning of prices, products in detail, and sales "but their life blood was in the advertising and through the years their resistance slackened."¹

N. W. Ayer and Son, Inc., one of America's largest and most respected advertising agencies, was probably the first agency to see the possibilities in radio advertising and the need for someone to arrange for talks and programs. Early in 1922, Ayer handled the account of the Shur-On Optical Company for a talk over KDKA. A little later it serviced the E. R. Squibb and Sons account for a talk on WEAF. In 1923, programs were arranged for clients over WDAR, Philadelphia, and WLAG, Minneapolis.²

Some of the first efforts at advertising, and this mostly of the identification type of announcement, had taken place when Herbert Hoover became Secretary of Commerce in 1921. He expressed himself at the First National Radio Conference in 1922 as opposed to direct sales talks, and what is now called the "hard sell" in parlance of the business. His mind has not changed much in forty years. He still maintains that if a company sponsors a good program

¹Walter C. Evans in an interview recorded in the <u>Oral</u> <u>History Collection</u>, Columbia University, p. 29.

²Ralph M. Hower, <u>The History of An Advertising Agency</u> (Cambridge: Harvard University Press, 1939), p. 161.



they need to do little more than have the names of the company and products identified to benefit from a radio or TV show.¹

It is interesting to read what he said in his memoirs about broadcast advertising:

As I pointed out in my first statement in 1922, broadcasting, then first beginning its use of advertising, could go wild in this direction. It has often done so. The dignified presentation of the sponsor has too often been abandoned for huckster's tattle, interlarded into the middle of programs and tiresomely continued at the end. Sensitive people refuse to buy an article because of the inept persistence of the announcer. Yet advertisers, paying \$500 a minute, seemingly cannot bear to hear any minute lost in the barking of their wares or names.²

Another objection to radio advertising came from Senator Arthur Capper of Kansas, the publisher of several farm magazines and newspapers. He said much of the indirect advertising on radio was disguised advertising which compared with an illegal and outlawed method once practiced by unscrupulous newspapers--that of hiding advertising as "reading matter" or news stories. Capper called for a regulation of radio which would make it mandatory that a clear statement at the beginning of every message indicate the speaker had paid for the privilege of broadcasting.³

To turn the coin, there were others who defended the idea of radio being supported by advertising. H. V. Kaltenborn, the well-known news commentator, was one of the first

¹Herbert C. Hoover in interview with writer, November 3, 1961.

²Hoover, <u>Memoirs</u>, <u>op. cit</u>,, II, p. 147.

³Radio Broadcast, December, 1924, pp. 259-260.



to see the potentials of radio serving the public interest though subsidized by advertising.

Mr. Kaltenborn's comment in his own words is much more graphic than any paraphrasing or summary might be:

There has been a great deal of adverse comment on radio sponsors, and I have thought a good deal about sponsorship and those relations with the sponsor that affect the man who is sponsored and the public who hears him.

Some people think a broadcaster would be more free if not sponsored. They say "Oh, he is speaking for the oil company and says what they want him to say." Of course that is nonsense, no sponsor is that crude. Without a sponsor broadcasts might be less free than more free, just as a newspaper might be less free if it had no advertising. A newspaper is only free if it is economically independent. Any station which gets its primary support from individuals or groups that serve some special interest is more beholden to those groups than it would be to any advertiser. He, at least, is getting his return in publicity for his product. Individuals and groups often exercise a pressure more inimical to the public interest than any advertiser.

The advertiser uses radio to promote his business. While he tries to get out of it what he can, and frequently puts pressure on a newspaper or radio station for a little extra publicity in connection with an exhibition or a charity or a news event, that isn't too serious. But if a group or an individual buys a radio station to promote a particular set of ideas, such a station may be more harmful to the community it serves than one that depends on advertising income. Where government controls broadcasting it may be too timid in dealing with political issues as in Britain, or it may be used to promote dictatorship at home and revolution abroad. So, to support broadcasting by advertising is by and large the best solution.

The program and the sponsor which did the most to set the pattern in the early days was the Eveready Hour sponsored by the National Carbon Company and arranged through the agency

¹Kaltenborn, <u>Oral History</u>, <u>op. cit</u>., pp. 210-211.



of N. W. Ayer and Son. National Carbon and Ayer were perceptive enough to reason that wholesome family entertainment would be the kind of programming to appeal to the greatest number of listeners. They also knew that expensive programming needed a network of stations to reach the necessary number of listeners to keep the per capita cost within the limits the sponsor could afford to spend.

Once the pattern was set, once AT&T had proved networks practicable through experimental hookups in 1924, the growth of coast-to-coast sponsored programs was rapid. As competitive networks were created, and the popularity of one national program was pitted against another, radio programming became an art appealing to the entertainment tastes of twenty million fans.

CHAPTER XII

THE ASCAP STORY

One of the formative factors in molding radio during the Twenties was the imposition of royalty charges against radio stations by the American Society of Composers, Authors, and Publishers (ASCAP) for the broadcasting of members' copyrighted music.

ASCAP fees from radio rose from a total of \$16,500 paid by thirty-six stations in 1924 to \$28,000,000 paid by the broadcasting industry in 1960. Of this last total radio paid approximately \$10,000,000 and television, \$18,000,000. The fees broadcasting paid to ASCAP were about nine-tenths of that society's total income.¹

ASCAP was organized as a voluntary, non-profit association in New York City in 1914 by a small group of composers, authors, and publishers.

The organization was inspired by a visit to Shanley's Times Square Restaurant in New York by Victor Herbert and Giacomo Puccini. As the two men entered the restaurant the orchestra was playing one of Herbert's current hits "Sweethearts." Puccini beamed at his friend and complimented him

¹Broadcasting magazine, October 23, 1961, p. 98; Landry, This Fascinating . . ., op. cit., pp. 201-202, gave 1937 ASCAP



on having his music played everywhere at great profit to himself. Victor Herbert explained that in America there were no performing rights societies to protect songwriters and to collect fees for them, such as there was in Europe.

The outgrowth of this incident was a meeting some time a little later of nine men greatly interested in fees for performing rights. These men met in Luchow's Restaurant in Greenwich Village to plan the society that became ASCAP.

Besides Herbert there was George Maxwell, the American representative of G. Ricordi and Co. of Milan the firm which handled Puccini's music, and Nathan Burkan, Herbert's attorney, who fought the early legal battles of ASCAP. Jay Witmark of the publishing firm of M. Witmark and Sons was also there.¹

Maxwell was familiar with the European performing rights societies and thus was able to advise the group in a general way.

The aim of ASCAP was to collect royalties for the use of members' copyrighted music for public performance for profit. This eventually affected a wide range of producers of music for profit. Producers of phonograph recordings, piano rolls, owners of theaters, the moving picture industry,

receipts in breakdown form as: radio \$3,878,751; movies \$1,099,512; restaurants \$492,119; hotels \$209,649; dance halls \$127,806.

¹Hazel Meyer, <u>The Gold in Tin Pan Alley</u> (Philadelphia: J. B. Lippincott, 1958), pp. 78-79. The others of the nine founders were author and librettist, Glen MacDonough; and composers Raymond Hubbell, Silvio Hein, Gustave A. Kerker, and Louis A. Hirsch.

restaurants, places of entertainment generally, and broadcasting stations all had to pay. The royalties collected by the association were allotted and distributed among the members.

This did not come about automatically. Membership grew slowly. At the present time there are 5,679 songwriter and 1,902 publisher members, and over 30,000 licensees. The society controls over two million pieces of music.¹

A board of directors was set up with equal representation of the two types of members. Quarterly royalties were set up on a complicated formula which paid publishers and songwriters on the basis of popularity of the work, the length of service of the writers, and their general contributions to the art.

The strength of the organization depended on the willingness and ability of ASCAP to enforce its rights under the copyright law. This made it necessary to "police" the industry, to detect infringements and then take legal action.

In fact, Warner has said licenses granted by ASCAP to broadcasting stations are really indemnification agreements "whereby ASCAP agrees to save and hold radio stations harmless for all suits based on musical compositions in the society's repertoire."²

¹<u>Detroit News</u>, April 1, 1962, D, p. 12; Emanuel Celler, Law and Contemporary Problems, Autumn, 1957.

²Harry P. Warner, <u>Radio and Television Rights</u> (New York: Matthew Bender and Co., 1953), p. 360.

AT&T was probably the first to approach ASCAP for permission to use the society's music. This was in about August, 1922. The telephone company wanted to use music on its toll station WEAF. Apparently permission was granted at that time without fee, for there had been no formula worked out for broadcasting. WEAF never objected later when fees were assessed against it.

From 1924 to 1932 radio stations paid a flat annual fee to ASCAP. As examples, in 1924 WOR, Newark, paid \$750; WEAF, New York, paid \$500; and WCAP, Washington, paid the same. The society enrolled radio stations with difficulty.

In fact, difficulty describes the whole life of ASCAP. There was difficulty in getting publishers and songwriters to join, difficulty in getting them to stay in the organization once they had joined. There was difficulty making the users of their music pay. Threats of boycott of the society's repertoire were used, threats of discharging artists who played or sang ASCAP music, and threats of competitive publishers.¹

Most of the threats resulted in action. From the very first ASCAP had to win a test case, Herbert v. Shanley, which went to the U. S. Supreme Court before ASCAP could establish the right to collect royalties for the public performance of its music.² Interestingly enough Justice Oliver Wendell

¹Meyer, <u>op. cit</u>., pp. 76-106, is a good account of the development of ASCAP.

²242 US 591, 37 S Ct. 232, 61 L Ed 511 (1917).

Holmes wrote the opinion which stated that performance was for profit even though that profit was indirect. Fine restaurants "profited" from having good music played for diners' enjoyment. This was part of the setting which attracted customers to the restaurant, therefore, ASCAP should be paid.

ASCAP was hardly established before it came in conflict with broadcasting. In point of years the society was established, but it was still weak. In fact, although established in 1914, ASCAP took several years to establish basic rights, and did not make a royalty payment until 1921. This, of course, was at about the time radio was beginning.

Soon after WEAF set a pattern by agreeing to pay ASCAP, the industry reacted. The National Association of Broadcasters was formed primarily to fight ASCAP.¹ At first, NAB tried cooperating with the Motion Picture Theater Owners Association (MPTOA) in setting up a "Tax Free Music Bureau." This came to nothing because the theater people soon made peace with ASCAP.

The broadcasters then supported another abortive attempt to compete with ASCAP. This was the Bureau of Musical Releases in 1923. Another short-lived group was the Independent Authors, Composers, and Publishers.

The most obvious method of fending off ASCAP would have been to refuse to play the society's music. This was difficult

¹Llewellyn White, <u>The American Radio</u> (Chicago: University of Chicago Press, 1947), p. 28.



to do because for several years ASCAP did not publish a list of its music, so a broadcaster could not be certain if he were infringing or not.

A few early court cases soon established ASCAP's right to collect for the broadcasting of members' copyrighted music. The first of these was <u>M. Witmark and Sons v. L.</u> <u>Bamberger and Co.</u>, 291 Fed. 776 (D. C. N. J., 1923) in which the court held station WOR, Newark, owned by Bamberger, was liable. WOR, the court said, might not be charging for time or making a profit in a direct way, but an "indirect" profit accrued.

In another case, <u>Remick and Co. v. American Auto</u> <u>Accessories Co.</u>, the initial decision was that broadcasting of music without having received money for the air time was not performing for a profit. This was reversed on appeal.¹

Two more cases, with Remick as plaintiff against General Electric, strengthened the ASCAP claim that a broadcasting station made a direct or contributing infringement when it transmitted a copyrighted musical composition without being licensed by ASCAP.²

After the 1926 decision in the Remick--GE case, the broadcasters conceded that stations using copyrighted music would have to pay. This did not mean that NAB ever held its fire. The attack on ASCAP continued--and it has to this day--

¹298 Fed. 628 (D.C. Ohio, 1924); Appeal, 5 F 2nd 411 (6th Cir., 1925); writ of certiorari denied.

²4 F. 2nd 162 (D.C. N.Y., 1924); 16 F 2nd 829 (D.C. N. Y., 1926).

in an attempt to thwart the efforts of ASCAP to raise rates and take a bigger slice out of broadcasting profits.¹

The NAB continued to call ASCAP a publishers' monopoly, to label the provisions of the music licenses as unfair, to lobby for bills in Congress to curtail the association, to try to establish "tax-free" music sources.

The reaction of ASCAP to the court decisions in its favor was to push for higher fees. The society proposed a sustaining fee, such as the flat fee in the past but raised to a higher level, and a performance fee of \$20 per hour for all sponsored programs. Translated into the case of WNAC, Boston, which was paying a flat fee of \$500 a year, the new proposal would mean a sustaining fee of \$1000 plus the \$20 per hour for sponsored programs, or a total of about \$25,000 per year, an increase of 7,000 per cent.²

The revenue of ASCAP grew rapidly with the radio industry. During the last year of the flat fee, 1931, the broadcast industry paid ASCAP \$960,000. In April, 1932, ASCAP announced its new schedule of fees, somewhat altered from the sustaining-fee-plus-\$20-per-hour plan. It was estimated the new formula would bring in three or four million dollars annually. Under this plan, each station would pay a sustaining fee. In addition, there would be a commercial fee. The first year this would be 3% of the net receipts, second year--4%, and the third year--5%.

¹Warner, <u>op. cit.</u>, p. 351ff. ²<u>Ibid.</u>, pp. 359-360.



Net receipts were defined as total receipts less advertising agency fees, charges for talent, and revenue from political broadcasting. Under the contract covering the agreement between the society and the broadcaster, the accountants for ASCAP had the right to audit the books of the broadcaster.

The broadcasters were rankled by the increase in rates, because they had to pay on non-musical programs and on those in which music from the public domain was used. Furthermore, ASCAP gave newspaper-owned stations a preferential contract with a 50% of normal sustaining fee, and a fee only on programs using ASCAP music.¹

There was not much the broadcasters could do except go along with ASCAP, for the association had a powerful weapon in a \$250 minimum damage claim per performance under the Copyright Act.

Leo Fitzpatrick delivered a series of talks on the radio industry over WJR, Detroit, in 1933. He said WJR at that time was paying a sustaining fee of \$5000 plus three per cent commercial rate to ASCAP. He reported the range of sustaining rates among the radio stations was \$500 to \$25,000. He raised a question which no doubt was bothering many station operators at that time. If ASCAP demands from radio

¹<u>Ibid</u>., pp. 370-371.

could jump from one million dollars a year to three million, he asked, why could they not go to fifty million?¹

There were many attempts, besides those already mentioned, to forestall ASCAP. Radio Corporation of America, for its subsidiary, the National Broadcasting Company, in December, 1929, organized Radio Music Co., Inc., as a performing rights society for the purpose of supplying music to itself and to the broadcasting industry. Claude Mills, an executive of ASCAP, was hired to head the new firm. Radio Music Co. acquired all the outstanding stock of two large publishing houses, Carl Fischer, Inc., and Leo Feist, Inc., as well as controlling interest in two other publishing companies.

Radio Music Company operated two years and lost \$376,000. RCA gave it up as a bad job, absorbed the loss, disposed of the stock of the publishing houses, and dissolved the company.

ASCAP managed to stand up under all the blows which fell upon it. The National Association of Broadcasters tried to have ASCAP dissolved as an illegal combination in restraint of trade in a test case with station WPI, Philadelphia, as plaintiff. This move in 1933 was unsuccessful.²

¹Leo Fitzpatrick, <u>Radio Realities</u> (Detroit: Station WJR, about 1934) in a radio talk reprinted therein. Talk titled: "The Authors, Composers, and Publishers Society."

²N. A. B. Reports, September 23, 1933.

The next year the federal government filed an antitrust suit against ASCAP on charges that competition among members had been eliminated, that incentive to use compositions of non-members had been destroyed. The government did not present a good case so nothing came of it. Shortly afterward the industry signed a five year extension of their current contract.

ASCAP was having internal troubles about that time also. Warner Brothers Pictures, Inc., which controlled about 20 to 40% of ASCAP's music, advised the association it was withdrawing January 1, 1936 because royalties were too low. Warner's owned music valued at \$10,000,000. On this investment they earned only \$340,000 in 1934, and they felt a \$1,000,000 return was warranted.¹

Warner's Music Publishers Holding Corporation was composed of the properties of five major publishers: Harms, Remick, Witmark, Advanced, and New World. There were 40,000 copyrights involved including most of the work of Victor Herbert, Jerome Kern, Cole Porter, Noel Coward, George Gershwin, Sigmund Romberg, and Rodgers and Hart.

Warner Brothers hoped to license its music directly from its music corporation and thus have a larger return on its investment. The first plan was to license music on a three months flat rate basis and then eventually on a "per

¹Meyer used the 20% figure; Warner said 38-40%. The explanation possibly is this: the 20% figure: might represent the portion of the total repertoire of ASCAP; the 40% might represent a portion of the music played.

piece" basis. About 250 stations signed up with Warners although the networks advised against it.

The move Warner Brothers made proved to do more damage to the popularity of their moving pictures than it did to the radio stations. The picture company found it needed to have its music played widely to publicize its movies. Warners re-entered the fold after a separation of seven months.

The most successful resistance to ASCAP came when the society announced a raise in rates to begin in 1940. The NAB decided to form a music licensing organization of its own to compete with ASCAP. This organization was known as Broadcast Music Incorporated (BMI) with the ownership of its stock limited to broadcasters. The method of operation chosen was for EMI to acquire the rights for public performance of music and then in turn license broadcasters and others. The difference between BMI revenue and expenses, or the profit of operation, was to be rebated pro rata to the broadcaster stockholders.

The BMI was faced with problems in acquiring rights for music. Most of the established writers and publishers were affiliated with ASCAP. E. B. Marks Music Corporation was one large publisher who came to BMI for a guarantee of \$200,000 a year. But in general, BMI was forced to take the music that had not been accepted by ASCAP. Some writers, Hazel Meyer for example, attribute much of the trend of rock

and roll, and calypso music to BMI. She thinks much of this would have not reached the air if BMI had not been forced to take it.

ASCAP had kept the broadcasting industry in suspense during the fall of 1940. Everyone knew there would be a raise in rates but it was not until a few weeks before time for contract renewal that the broadcasters knew what ASCAP wanted. The demand was astounding: seven and one-half per cent of the gross time sales! This would amount to about \$9,000,000 in fees to ASCAP, a jump of 100% over 1939. The radio industry refused to pay. Starting at midnight, December 31, 1940, it was an infringement to play an ASCAP tune for broadcasting.

Until BMI was able to start licensing stations and supplying its own music in April, 1940, the radio industry got along the best it could on music in the public domain (music on which copyrights had expired). For ten months until peace was made with ASCAP, the air was filled with Stephen Foster's melodies and with the strange new tunes of BMI.

ASCAP was suffering from other woes also. For some time NAB had been working at the state level lobbying for legislation to curb ASCAP. In addition to this, the federal government started proceedings against ASCAP under the Sherman Anti-trust Act, December 26, 1940. Named also were the newly-formed BMI, National Broadcasting Company, and

the Columbia Broadcasting Co.¹

BMI signed a consent decree binding themselves to any regulations applied to ASCAP operations. The suits against NBC and CBS were shortly afterwards withdrawn. ASCAP stood alone.

ASCAP also signed a consent decree in late February, 1941.² The society gained at least one point from the consent decree. In the decree agreement, it conceded that it came within the gambit of the federal anti-trust laws. This relieved it from the troublesome state actions.

Under the terms of the consent decree ASCAP'S rules and contracts became less restrictive:

ASCAP members were free to license performing rights to anyone except BMI.

All users of music in the same class were to be given the same terms and conditions.

A percentage could no longer be levied on programs not using ASCAP music.

A user of music would have the option of paying on a piece or program basis with a reasonable relationship between the two kinds of fees.

Where several stations were hooked up together only the originating station would need a license.

A better system which licensed sponsors, advertising agencies, and electrical transcription companies, relieved the broadcaster of getting special permission to use music in instances where it had been necessary before.

All users of music were not compelled to take entire ASCAP catalog under a blanket agreement, but were able to use the music on a piece basis.

¹<u>N. B. A. Reports</u>, January 31, 1941, pp. 96-98.

²United States v. ASCAP (DC N.Y., civil action No. 13-95) entered March 4, 1941.

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ASCAP agreed not to withdraw a composition from the catalog just to increase the rate, or of restricting a song for the purpose of raising fees for transcription. There was an escape clause permitting restriction to prevent indiscriminate performances.

The Board of Directors was to be voted by the general membership.

The membership was to be open to any composer who published one composition instead of the five compositions needed to qualify formerly.

Peace was made between the broadcasters and ASCAP after ten months of radio shows without the society's music. In the meantime, BMI had become established and was to remain in competition with ASCAP. Broadcast Music ended its first year with over 800 licensees and a balanced budget.¹

This was not the end of the rivalry. There have been other lawsuits, other federal investigations, other consent decrees, more concessions to the broadcasters, more attempts of one association to get the competitive advantage of the other. Broadcasting has grown, the earning and demands of

¹<u>Associated Music Publishers v. Debs Memorial Radio</u> <u>Fund</u>, 46 F. Supp. 829 (DC NY 1942); affirmed 141 F2d 852 (2d Cir 1944); certiorari denied 323 US 766, 65 SCt 120, 89 L ED 613 (1945), was an important case in which ASCAP established its right to collect fees for its music from stations classifying themselves as "non-profit" even though they sold a small amount of radio time to defray expenses. The Debs station sold one-third its time to defray its expenses so it could devote the remaining two-thirds of its time to philanthropic and educational purposes. Warner, <u>op. cit.</u>, p. 357, said: "The court held that the unlicensed broadcast of a copyrighted musical composition during a sustaining program by the non-profit broadcaster infringed the copyright."

ASCAP have grown ever greater. As this is being written in the spring of 1962, ASCAP and BMI are again locked in a struggle.¹

¹See Appendix K for a description of other organizations in the music field which affect broadcasting.

CHAPTER XIII

THE PATENT POOL BUBBLES OVER

Cross licensing of patents was an important factor in the growth of American broadcasting. As we have seen, this came about through the example of a war-time practice, and through the agreements reached by General Electric and the Marconi interests at the formation of the Radio Corporation of America. Westinghouse, American Telephone and Telegraph, and United Fruit were drawn into RCA because they possessed vital radio patents of their own and needed the use of patents belonging to others. The final step was taken when the major manufacturers licensed smaller companies to use patents and they all partook of the ample profits of a new and burgeoning industry. The finis of the tale should have been "and they lived happily ever after." Unfortunately this did not happen.

For one thing, when the initial agreements were made no one could foretell how the industry would develop. In 1920 radio was a commercial communications enterprise with some side business of equipment sales to experimenters and amateurs. Two years later, broadcasting had become so popular the sale of receivers and other equipment was the major part of the RCA business.

Then greed, or self-protection, or fear, or a combination became the motivating factor of moves by the big interests in the industry.

Once transmitter manufacturing and long distance telephone interconnections had been considered the AT&T radio interests, while General Electric, Westinghouse, and RCA had confined their efforts to manufacturing radio receivers and selling them. Now in the middle Twenties, things had changed. AT&T became interested in building receivers also. True, their request was to build only enough to give their engineers experience to keep pace with developments in the art. Furthermore, AT&T maintained it had exclusive rights to broadcast for hire. It consented to allow the privilege to those who bought and installed their Western Electric transmitters, or who paid a special license fee.

The radio group, in the meantime, had gone into broadcasting following the idea of Mr. Davis of Westinghouse that a manufacturer of radio receivers could encourage the sale of his product by furnishing programs for customers to enjoy.

Broadcasting without revenue became increasingly expensive with the rising cost of station equipment, the necessity to hire performers, and with the need to pay royalties to ASCAP. RCA, General Electric, and Westinghouse looked hungrily at toll broadcasting as the telephone company established station WEAF as a toll station and soon made it pay its way.

AT&T went into toll broadcasting to explore the field as possible competition to its own wired telephone. Experiments in early two-way radio telephone were disappointing because wave lengths were used which almost anyone could pick up on his own set.¹ When this type of telephone seemed impracticable AT&T devoted most of its attention to the possibility of one-way toll broadcasting.

WEAF was established with the thought clients would come forward to purchase time to broadcast messages. At first the company's ideas as to the operation of the station were necessarily rather vague and indefinite--only that the station would make time available, and the customer would furnish his own message. What AT&T possibly did not realize was that a successful commercial station would have to be able to offer his clients an audience, and that few stations could expect to sell 100% of their time. This made sustaining programs necessary even to WEAF. So the toll radio station was faced with programming problems much as any other station.

Another complication which came with the growth of radio, and especially with the need for commercial stations, was interconnection. AT&T had a practical monopoly of wired interconnection although Westinghouse was fast making short wave interconnection workable.

¹Alfred N. Goldsmith and Austin C. Lescarboura, <u>This</u> <u>Thing Called Broadcasting</u> (New York: Henry Holt and Co., 1930), pp. 37-38.

Wire interconnection was expensive to effect since long distance telephone lines alone were not enough to accomplish it. Special circuits, boosters, and other equipment as well as technicians along the route were necessary. Furthermore, AT&T was eager to assure everyone this was a special service, not a part of public service which might come under the Interstate Commerce Commission for regulation of rates and service.

With the caution of a corporation with billions in assets which could easily be placed in jeopardy, AT&T moved slowly in granting interconnecting service to members of the radio group.

The radio group, as it looked about for means of making broadcasting pay for itself, realized commercial networks would be necessary for future radio expansion. AT&T presently held the key to interconnection unless telegraph wires would work. A few times AT&T granted the radio group wire for hookups, more often Western Union or Postal Telegraph lines were used, but with less satisfaction.

The radio group had a greater number of strong radio stations than AT&T. Westinghouse stations were at Pittsburgh, Chicago, Springfield, Massachusetts, and Hastings, Nebraska. General Electric owned stations at Schenectady, Denver, and Oakland. RCA had WJZ to compete with WEAF in New York, and WRC in Washington against the AT&T station, WCAP.

Tension between the two groups mounted fast, but at the same time public opinion was beginning to express itself against the monopolistic growth of RCA, AT&T, and other huge companies. The government, which had encouraged the formation of RCA in 1919, now looked at the industry critically. The Federal Trade Commission started an investigation of the radio business, as has been mentioned.

The telephone company sold its holdings in RCA in the early days. It is not certain whether this was because of desire to avoid a government investigation or because of dissatisfaction with the business arrangement. Surely there was no desire for any bad publicity such as an open quarrel with RCA.

Possibly the decision-makers at AT&T were assessing WEAF's experience with toll broadcasting and were attempting to plan a way to operate revenue-producing stations without being directly promoters of radio advertising. This position might not be much different from the WEAF operation but the distinction might be nice enough to take AT&T out of the spotlight.

A. H. Griswold, a vice president of AT&T outlined his thinking on the future of radio broadcasting:

What I have in mind ultimately is, that in each locality an important group of people will get together and form a broadcasting association. In that group of people should be the type that the community looks to as being the leaders of its community. In it I would expect to see the Chamber of Commerce, the important newspapers, the department stores, especially the people interested in radio and the general public
as well. For that association we would erect, own, and operate a broadcasting station; they to provide all the programs; they to give the public what the public desired but we to have the latest facilities known to the art and all the things that go with them including remote control lines and speech input equipment. That station is to be operated by the Bell System under definite guarantees from the association as to expenses plus a reasonable return. In these expenses there would be a sufficient amount to amortize that equipment over a short period. The obsolescence factor works to a very high degree in radio with its newness and with the art in its present state.

We have been very careful . . . , up to the present time, not to state to the public in any way, through the press or in any of our talks, the idea that the Bell System desires to monopolize broadcasting; but the fact remains it is a telephone job, that we are telephone people, that we can do it better than anyone else, and it seems to me the clear, logical conclusion that must be reached is that, sooner or later, in one form or another, we have got to do the job . . . I may state to you that I have talked this idea over with Messrs. Thayer, Gifford, and Bloom and each of them thinks it is a proper setup. It puts us where we belong; we are providing the facilities, the lastest and best known to the art; we are in the telephone business still; we are part of it. Whatever monopoly feature there is in it will be created by the local group itself which will get everyone interested in radio in that local group and if anyone desires to own his own private broadcasting station, they will say to him, "Come on in with the bunch, we represent this community in radio broadcasting."1

Apparently the telephone company never tried to put Mr. Griswold's plan into action. It must have reflected some of the thinking that was going on at telephone headquarters if it had the approval of Thayer, Gifford, and Bloom, the three top men at AT&T.

The stakes in radio were large and both the telephone and radio groups looked hungrily at the future. With two

¹Horace Coon, <u>American Tel. and Tel.</u> (New York: Longmans, Green & Co., 1939), pp. 209-210. This is a quotation >

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forces desiring the same object one was certain to try to check the other's progress toward the goal.

The struggle had to be kept under the surface as much as possible, for it would not be wise to alert the public and the government to the point where they would question the safety of the public's interest. The Federal Trade Commission had been investigating radio since 1922, and now in the middle of 1923 they were even more insistent because Congress was considering radio legislation and wanted information about the industry.

James Harbord, a retired army general, was appointed president of RCA, January 1, 1923. He was immediately faced with this RCA--AT&T rivalry and dispute over patents. He requested David Sarnoff, then general manager of RCA, to outline the problem for him.

Sarnoff said answers had to be found for the following questions:

Should RCA be confined to the sales of radio receivers and tubes?

Did AT&T have an exclusive right to broadcast for hire?

Could AT&T manufacture radio vacuum tubes under the cross licensing agreement?

Did AT&T have the right to manufacture radio receivers as long as no other patents than their own were used?

Did AT&T have exclusive rights of radio telephony for public service, including use of loud speakers in restaurants and theaters?

from a speech by Griswold as reported in the <u>Telephone Inves</u>tigation Staff Report of the date of February 23, 1923. Did AT&T have exclusive rights over wired wireless on own lines only or over all lines? $\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$

Harbord knew the problem had been growing long before he became president of RCA. He knew the question of the difficulty between the two companies had been submitted to Charles Neave, a patent attorney and partner in Fish, Richardson, and Neave, for an opinion of what powers and rights were granted under the original cross licensing agreement. Mr. Neaves had done patent work for both firms and had assisted in drawing up the original agreement. His opinion and analysis was not acceptable to the Radio Corporation.

Late in 1923, Harbord and the RCA directors agreed to submit the questions unsettled between RCA and AT&T to formal arbitration. Mr. Fish, Neave's partner, was selected to represent the Radio Corporation. Ira J. Adams, head of the patent department of RCA, was to assist in gathering evidence and material to be presented to the referee.

Roland W. Boyden, a Boston lawyer, was agreed upon as referee of the arbitration hearing. Agreements of procedure were signed December 28, 1923. Statements of claims were to be exchanged the following January 17, and then ten days were to be allowed for answers to opponent's claims to be presented.

There had been a great deal of worry in the radio group as the matter neared arbitration, but AT&T also was

¹Gleason L. Archer, <u>Big Business and Radio</u> (New York: American Historical Company, Inc., 1939), pp. 73-86.

having anxious moments. The year of 1923 had presented other legal difficulties, and from another aspect of AT&T's radio interests. The phone company had come to the conclusion that over 90% of the nation's radio stations were operating in infringement of AT&T patents. Except for stations using Western Electric transmitters, or radio group stations under the cross licensing agreements, or stations which had received a specific license from AT&T, all others were infringing.

No doubt the fact that these stations were competing in the broadcasting field was some reason for AT&T to take action, but more important, the value of the patents could be damaged if no attempt were made to end known infringement. Lack of action would have great bearing on the decisions in any subsequent suit. The AT&T was, in fact, forced to sue.

Before actual suits for infringements were instituted, AT&T passed rulings on granting wire service to radio stations which the company was sure would bring the recalcitrants around.

Stations licensed under AT&T patents would qualify for wire service if available at all to a station in that community. Naturally, licensed stations would be immune from infringement suits and would have the privilege of purchasing replacement parts, tubes, and other hard-to-get items from AT&T's Western Electric Company. The right to broadcast for hire was also granted.

A scale of license fees for stations to operate under the Bell franchise was announced late in 1923:

\$ 500 for a station 5-100 watts
1,000 for a station 150-250 watts
1,500 for a station 300 watts
2,000 for a station 500 watts

No fees were charged for colleges or universities. The fee was a one-time fee, non-recurring.

A few months after the above fee schedule was announced, a change was made to \$4 per watt with a minimum of \$500 and a maximum of \$3,000. A nominal fee of one dollar was charged colleges, universities, and other educational institutions, and state and municipal governments. The nominal fee licenses did not include the right to broadcast for toll or hire.

AT&T's plan to encourage stations to license in order to gain rights of wire connection did not prove effective in 1923. It was still a little early, for the telephone company did not prove the true effectiveness of interconnection until the election campaign of 1924.

Since the radio stations did not voluntarily come forward in numbers to seek licenses, the telephone company was forced to make a test case in order to solidify its position. Action was brought against WHN, New York, for infringement. Station owners made dire predictions of monopoly of the radio industry by the telephone company.

A statement by a WHN official was reported in the press:

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We plan to combat this action because radio is an important blessing to the public and it would be entirely wrong to let one company control the religious and educational entertainment of the nation.

Radio must remain free and an open field for all. If the American Telephone and Telegraph Company wins this fight, it will mean that ultimately it will affect receiving sets and people will not be allowed to build their own sets. It would mean that this company would not only control actual broadcasting but would also control receiving, as it would force listeners to rent sets, as in the case of the telephone.¹

In spite of all the feeling WHN expressed against AT&T's action, the station took out a license before the court action reached a conclusion. The validity of AT&T patents was thereby acknowledged.

The legal action against WHN had the effect of making other stations apply for licenses. Within a year, 250 stations were licensed to operate under AT&T patents. All of these except those paying nominal fees could broadcast for hire.

In the meantime, the arbitration proceedings between AT&T and RCA were progressing very slowly. Mr. Fish, the RCA counsel, was out of town a great deal on previous business commitments. Also at another time his wife was ill, which forced him to stay in Boston. Albert G. Davis, vice president of General Electric, and Owen D. Young, chairman of the board of RCA, both acted in advisory capacity to Mr. Fish. All three men were busy with many affairs, so it was difficult to get sustained action. Mr. Guernsey, counsel

Banning, <u>op. cit</u>., p. 204.

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for AT&T, had the same trouble conferring when he needed to with H. G. Thayer, president of the telephone company.

Another unforeseen event was the death of Mrs. Boyden, the wife of the arbitrator. This, of course, caused a delay. After several months of work and delays Mr. Boyden was able to deliver his draft decision (his tentative decision subject to slight alterations). This took place November 14, 1924. In general, the decision was a vindication of RCA's claims and a repudication of most of AT&T's.

Mr. Boyden believed AT&T had no rights in the radio receiver field except where a receiver was used in conjunction with a transmitter (similar to a telephone instrument). The referee also decided against the telephone company having exclusive rights in broadcasting for toll, and in the use of pickups and wire connections.

The following three weeks were busy for both sides as they prepared suggestions for changes in the referee's draft decision.

Both sides tried to effect compromises during the time they were waiting for Mr. Boyden's final report.

The field of disagreement seemed to be mainly on the question of the radio group's exclusive right to make and sell radio receivers under the agreement of 1920. The telephone company was asking that they be allowed to make and sell a sufficient number of receivers to keep their engineers abreast of the advances in the art.

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Two or three things should be considered here. One, the Radio Corporation of America was the world's largest distributor of radio receivers. In the middle Twenties this business amounted to about \$50,000,000 annually and was growing rapidly. It can be understood why RCA was reluctant to agree to letting AT&T get its food in the door.

Another fact, which seems to have been overlooked by radio historians: RCA was afraid of competition from AT&T because the telephone engineers were able to make better receivers than the RCA suppliers, General Electric and Westinghouse.¹

This was demonstrated in 1924 when a new radio was to be installed in the White House. Telephone engineers got there before the radio group, and installed an experimental eight tube set for the President's use. Impartial observers told the radio group it was a better set than their Radiola.

Not only was AT&T able to build better sets, but some of the independents were also. RCA, by the middle Twenties was dissatisfied with its agreement to take sets made by GE and Westinghouse, because those companies seemed reluctant to make the frequent improvements necessary in a fastchanging art. They wanted to standardize a design they could manufacture by the hundreds of thousands.

Archer, <u>Big Business</u> . . . , <u>op. cit</u>.,pp. 142-147.

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The radio group wanted also to negotiate in some way to relieve themselves of the tremendous expense of maintaining broadcasting stations. Study committees had advised the leaders of the radio companies that the only thing that could be done was to accept advertising. AT&T through its WEAF network had demonstrated it was practicable--for them. The radio group could not build up a similar network of stations unless it had use of AT&T wire facilities.

David Sarnoff suggested that an American broadcasting company be formed by the principals of both groups, and other interested parties. The purpose of the company would be to "maintain centralized studios, hire talent, prepare and furnish suitable programs for space radio and wired broadcast systems."¹

The service would be furnished for charter members and independent companies. It was hoped the broadcasting company would be at least self-supporting, and possibly profit-making.

The board of directors, it was suggested, could be chosen to represent various classes of public interest, with the chairman to be approved by the Secretary of Commerce.

Sarnoff's crowning suggestion was that the corporation be vested with exclusive rights to broadcast for toll or pay. This would break AT&T's hold on toll broadcasting, because part of the agreement would cover the furnishing of wire service to the new company by AT&T.

¹Archer, <u>Big Business</u> . . ., <u>op. cit.</u>, p. 187.



This suggestion was made February 14, 1925. It is interesting to speculate on what the usually astute Mr. Sarnoff was thinking. Did he see the broadcasting company as a means of getting out from under the heavy cost of broadcasting? Or did he fully visualize the profits to come in broadcasting?

WEAF was able to operate at a profit by this time, but the telephone company was making more money on interconnection charges than it was on broadcasting. Did company officials think there was more money to be made in wire connections than in broadcasting?

To a present day observer, it would seem the leaders of the industry should have seen the broadcasting business shaping up. The practicability of national broadcasting had been proved during the election of 1924. Eveready and other companies had demonstrated that national advertisers were interested in multiple station hookups for their programs.

On March 2, 1925, Mr. Boyden submitted his final report. The radio group was very happy with it and wanted to move ahead with the implementation of it, for it was much the same as the draft proposal, and much in their favor.

A few days after Boyden's final report and before RCA officials could arrange a conference with their AT&T counterparts, the telephone company made a move which threw the radio group into great confusion.

AT&T had been greatly dissatisfied with Mr. Boyden's draft decision and had submitted the problem and the decision to attorney John W. Davis for a legal opinion. Mr. Davis was a corporate attorney whose legal ability was highly regarded. (This is the same John W. Davis, who was the Democratic nominee for President of the United States the year before.) Mr. Davis said he believed the original cross licensing agreement of 1920 was illegal because of restraint of trade.

Mr. Davis' opinion, although only the opinion of an able attorney, nevertheless destroyed RCA's bargaining position, for the telephone company did not feel obliged to abide by Boyden's report. The radio people did not want to go to court against AT&T any more than they did in the beginning. A lawsuit at this time would be additional unwelcome publicity.

Negotiations had to begin again. This time the talk centered around the idea of buying out AT&T's radio broadcasting interests, and forming a broadcasting corporation such as Sarnoff suggested.

The telephone company anticipated this by forming a separate broadcasting corporation to take over their stations. This was called the Broadcasting Company of America. There may have been two possible reasons for this move. One, since there were a great number of people at AT&T who thought the telephone company should confine its business to telephony this divorcement might satisfy them. To those at AT&T who wanted greater development of broadcasting, a separate



corporation might seem a step in the right direction. Whatever the reason this new company was formed in May, 1926.¹

Finally in July, 1926, the two groups reached an agreement on new cross licensing contracts. In the agreement, AT&T gave an option to RCA to buy Broadcasting Company of America for one million dollars. After the sale AT&T agreed not to operate a broadcasting station prior to July 1, 1933 on penalty of repaying \$800,000. The telephone company also agreed to furnish wire service and interconnection to the broadcasting company. The telephone company, in turn, was able to enter the transoceanic radio telephone business, and was protected in sound recording and sound picture equipment, with the exception of its use in one-way radio reception.

Before the option ran out on WEAF and other BCA properties, the radio group formed a new corporation which took over the option from RCA. This was the National Broadcasting Company, formed in September, 1926. The stock was owned by RCA, 50%; General Electric, 30%; and Westinghouse, 20%. Later on the company became a totally owned RCA subsidiary.²

By July, 1927, National Broadcasting Company was through initial organization and had operated long enough

¹Banning, <u>op. cit</u>., p. 288.

²Thomas Porter Robinson, <u>Radio Networks and the</u> <u>Federal Government</u> (New York: Columbia University Press, 1943), p. 25.

(since November 1, 1926) so that it was now ready to broadcast sponsored programs over three networks: the Red, with WEAF, New York and twenty-two stations covering the East, South, and Middle West; the Blue, with WJZ, New York, and seventeen stations in the East, South, Southwest, and Middle West; and the Pacific, with seven stations from Seattle to Los Angeles.¹

The real growth and history of National Broadcasting came in the succeeding years, most of them outside the scope of this study.

The second great network to be formed was not handled with such great finesse. The Columbia Broadcasting System same into being with great difficulty and very little financial backing.

George Coats, a machinery salesman, attended the convention of the National Association of Broadcasters because a friend was there. He was called upon to express himself on ASCAP, the association's dominant problem. He had some very strong opinions about what should be done. He suggested that a radio program company be formed to furnish talent and music in competition to ASCAP. He became so enthusiastic about his own idea he looked about for someone to head such a talent organization. This was early in September, 1926.

His enthusiasm led him to Arthur Judson, manager of the Philadelphia Symphony. He interested Judson also, and before the end of September the two men had formed the

¹Archer, <u>Big Business</u> . . . , op. cit.,pp. 307-308.

ſ j, ł 1 Judson Radio Program Company and were looking for business.

Shortly afterward, Judson approached Sarnoif. This was about the time NBC was being organized. Judson proposed a plan whereby his company would supply NBC with the talent for sponsored programs for a nominal fee. This was possible for Judson to do because of his wide acquaintance with musical stars through his work at the symphony. According to Judson, Sarnoff assured him he could have the job of supplying talent when NBC was fully organized. Later Judson discovered someone else got the job.

Judson visited Sarnoff to find out why he did not get the job. Judson received no satisfaction and no promise of any help with his talent company. Judson was so exasperated by his treatment that he blurted out that he would start his own network. Judson described Sarnoff's reaction to this statement:

With that he leaned back in his chair and had an almost hysterical fit of laughter. He said: "You can't do it. I have just signed a contract to take a million dollars worth of long lines from the telephone company. In any event you couldn't get any wires if you had a broadcasting station. It can't be done." Sarnoff was right; it couldn't be done. But we happened to get the breaks and it was done.

The first thing Judson and Coats did was to organize a company called the United Independent Broadcasters--on borrowed money and promises. Coats took a trip west and signed up eleven radio stations to contracts under which

¹Arthur Judson, in an interview recorded in the <u>Oral</u> <u>History Collection</u>, Columbia University, p. 7. UIB promised to pay \$500 to each station for ten hours of air time per week. Then they ran into trouble trying to get long lines to connect the stations.

Coats tried to get many different companies interested in buying time on his new network. Finally he made a deal with the Columbia Phonograph Company. This company was beginning to feel the competition of radio. They were further worried about talk in the trade of a business connection between their chief competitor, Victor Talking Machine Company, and RCA.

Columbia made a cash deal with UIB for the use of the planned new network. The amount was \$163,000, and was like manna from heaven for the promoters. Columbia then formed a new corporation, the Columbia Phonograph Broadcasting Co. The purpose of the new company was to resell the time, or part of it at least, to other sponsors. On each program the new company would be able to say the program was coming through the facilities of the Columbia Phonograph Broadcasting Company. Thus it was believed Columbia <u>Phonographs</u> would get free indirect advertising.

The Columbia Phonograph Broadcasting Company lost \$100,000 the first month of operation because they were paying for time, talent, and operation and did not sell enough time to offset that. They soon withdrew from their agreement with UIB.

Through a series of refinancing and changing of hands UIB and CPBC finally became Columbia Broadcasting System. During the early days of CBS, a family by the name of Paley became interested in radio. The family made La Palina cigars, which they advertised quite successfully over WCAU, Philadelphia. The Levy family which owned the station told the Paleys that the Louchheims who owned controlling interest in CBS wanted to sell. The Paleys bought the majority interest in Columbia Broadcasting System and soon made it a strong and profitable property. William S. Paley, who took over active management at that time, September 26, 1928, was not quite twenty-seven years old. He still is one of the most prominent figures in broadcasting.

Both great networks were formed in the last half of the Twenties. The development of these networks followed AT&T's experimentation with multi-station hookups. The growth of multi-station hookups, as previously shown, was accelerated by the election campaign of 1924. This led to the creation of NBC and CBS.



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CHAPTER XIV

RADIO LEGISLATION

The formative years of American broadcasting, the years in which advertising became the main financial support of the industry, the years in which coast-to-coast broadcasting became a reality, the years in which the industry struggled with problems of adjusting to the added expense of performing talent and of royalties on copyrighted music, of frequently buying and replacing expensive equipment--in all those years, 1920-1927--there was very little regulatory power in the hands of the federal government.

There was a Wireless Act as early as 1910, it is true.¹ It was an act of Congress to regulate ship-to-shore communication which stated in substance that no ocean-going steamer with fifty or more persons aboard should leave a United States port to ply between ports 200 miles or more apart without efficient radio apparatus capable of 100 mile range, and without a competent radio operator.

Another Wireless Ship Act was passed in 1912 as the result of the sinking of the Titanic with frightful loss of

¹36 Stat. 629 (1910).

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life.¹ Much of this loss might have been averted if nearby ships had had twenty-four hour radio watches. The SOS signals from the <u>Titanic</u> went unheard by the ships nearest and most able to come to her aid. The Act of 1912 consequently called for two operators per ship and a twenty-four watch. The act also provided for licensing by the Department of Commerce of all operators of transmitters. Provisions were made against willful or malicious interference with other stations, and against transmitting false or fraudulent signals.² Radio in those days was principally ship-to-shore communication and amateur or "ham" activity so the need for further regulation did not seem to exist.

The use of radio in World War I stimulated interest in the art and in advancement in technique. Once the ban was lifted by the government in 1920, many hundreds of amateurs began to build sets, and Westinghouse, General Electric, and AT&T continued with experimentation begun during and before the war.

Once KDKA, WWJ, WGY, WJZ, WEAF, and other stations began offering music and entertainment with regularity, the number of home receivers leaped in numbers from thousands to millions, and the transmitters from a very few to nearly six hundred.

¹Walter B. Émery, <u>Broadcasting and Government</u> (East Lansing: Michigan State University Press, 1961), p. 16. ²37 Stat. 199 (1912).

• ţ, 1 - Despite all the efforts of the Department of Commerce to bring some order out of the chaos it was over seven years before Congress passed the Federal Radio Act of 1927. This urgency for regulation was demonstrated when the Secretary of Commerce was stripped of all power over the industry by the adverse decision in the Zenith case of 1926.

From the day he took office as Secretary of Commerce in 1921, Herbert Hoover realized the need for more clearly defined power of the department to regulate the rapidly growing radio industry. At that time the Secretary licensed radio stations but aside from dissuasion had little he could do to avoid giving every applicant a license.

In a recent interview Mr. Hoover told of one occasion on which he was successful in persuading a group to withdraw its application for a station license.

Representatives of a church group which believed in the imminent end of the world applied to Mr. Hoover for a radio station license. They said the members of the church had sold their worldly possessions and had contributed the money to the church. This money was to be used to build a radio station so they could broadcast the news of the last days. In this way, others would have time to prepare themselves for the event. Mr. Hoover told them he thought he could suggest a better method of using this money to broadcast the message. If the money were used to finance a station their message would be confined to the area serviced by the

station--a hundred miles radius, perhaps. Furthermore, at the end of the world, the investment would be worthless. As an alternative, if they took their money and purchased time on other radio stations throughout the country, they could reach millions instead of thousands. The representatives seemed convinced, and left without a license. How much radio time they were able to buy the Secretary never knew.¹

Soon after he took office, Mr. Hoover took steps toward securing greater regulatory powers. He issued a call to the various segments of the industry and to interested government agencies to meet in Washington in the First National Radio Conference, in 1922. It was "to advise the Department of Commerce as to the application of its present powers of regulation, and further to formulate such recommendations to Congress as to the legislation necessary."²

In his opening statements Mr. Hoover quickly asserted he did not believe the course of radio would be toward the use of radio telephone in the same sense as the ordinary telephone, this would be a "perfectly hopeless notion." He believed that wireless spoken word would be broadcast from certain central stations and would be material such as news, education, entertainment, and commercial communications of

¹Herbert C. Hoover, in an interview with the writer, New York City, November 3, 1961.

²Hoover, <u>Memoirs</u>, II, <u>op. cit</u>., p. 140.

public interest. Therefore, it was of primary interest as to who was to broadcast, what was to be broadcast, and under what conditions. He added "It is unconceivable that we should allow so great a possibility for service to be drowned in advertising chatter."

The First National Radio Conference sat for less than a week but the participants seemed to agree that some regulation by Congress was needed for this growing giant, radio.

In speaking of the conference a few days after its close, Herbert Hoover said it was "one of the few instances on record in which the people of the United States were united in their desire for more regulation."¹

So, representatives of various levels of the radio industry, of Congress, of the Navy Department, and of the Department of Commerce, sitting as the First National Radio Conference generally agreed:²

- Regulation of all radio telephone transmitter stations was necessary.
- 2. The power of the Department of Commerce should be extended to control the establishment of all radio transmitters except government and amateur stations.
- 3. The widening of the spectrum devoted to radio should be to twenty bands with priority given to broadcasting in this order: government broadcasting; educational and

¹<u>Literary Digest</u>, March 18, 1922, p. 12. ²Archer, History . . . , op. cit., p. 248-250.



public broadcasting; private broadcasting; and, finally, toll broadcasting. An amateur band of 150-275 meters was recommended.

- 4. The Secretary of Commerce should be empowered, at his discretion, to prohibit the use of existing radio receivers which cause radiation of energy (a great source of static) when suitable apparatus was available at a reasonable price and adequate time had been allowed for substitution.
- 5. Toll broadcasting should be allowed "to develop naturally under close observation, with the understanding that its character, quality, and value to the public will be considered in determining its privileges under future regulation."¹
- 6. Direct advertising in radio broadcasting should not be permitted, and indirect advertising should be limited to a statement of the call letters of the station and the name of the company responsible for the broadcast, and subject to such regulations as the Secretary of Commerce might impose.²

Congressman Wallace H. White, Jr. of Maine was present at the conference and took part in the deliberations. Congressman White introduced a radio bill in the 67th Congress (1923) in line with the thinking of the conference and with

1Radio News, April-May, 1922, p. 988.

²See Appendix J for an example of indirect advertising.

suggestions of Mr. Hoover. The bill passed the House but died in the committee in the Senate.¹

Under this bill the Secretary would have been czar of the industry. He was to be assisted by an advisory board of fifteen, eight to be appointed by various federal government departments and boards, seven to be chosen from radio experts not connected with the government. The Secretary would have these advisers but he himself would make the final decisions--and no provision was made for appeal from his decisions.

Some of the provisions of the proposed law, many of them turning up in later legislation, were:

- The Secretary would have power to assign wave bands and call letters.
- 2. Aliens would be restricted from owning, operating, or controlling broadcasting stations.
- 3. The license period would be for not more than ten years.
- 4. Conditions of ownership, financing, equipment, and programming for qualification for station license were well defined.
- 5. Operators of transmitters would be licensed through the Department of Commerce.
- Licenses would be non-transferable except through the Secretary.

¹HR 13773, 67th Congress, 4th Session.
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7. The President would have power to comandeer stations during an emergency.

Even though Congressman White's bill died in committee, Hoover went ahead in his efforts to bring some order to the industry through voluntary cooperation of station licensees. He called a Second National Radio Conference in Washington for March, 1923. At this meeting an attempt was made to extend the wave length spectrum with a reclassification of stations in wave length assignment.

Where there had been only three wave lengths used in broadcasting--360, 400, and 485 meters--it was proposed to expand the band to a range of 222 meters to 545. Stations were classified A, high powered, and B, low powered. The A stations were permitted the range 288-345 meters and B from 222 to 288. With A stations in about fifty communities throughout the country it was believed every radio fan would be within reach of one of them. B stations could serve local needs. With the new wave assignments there would be less likelihood of interference between stations. Special wave assignments were also made for amateurs and for ship-to-shore operations.

The conference recommended the Secretary have power to regulate station hours and wave lengths when licensing, and have the power to revoke or withhold a license when believed necessary for the public interest.

Representative White listened to these recommendations and was persistent in trying to get Congress to act. Despite

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the failure of his radio bill of 1923, he introduced another radio bill (HR 7357) in the first session of the 68th Congress. Secretary Hoover, who felt some control was necessary to curb possible monopoly, approved of the provisions of the bill. But this bill was not allowed to come to a vote before adjournment in June, 1924.

Hoover called a Third National Radio Conference in Washington, October 6-10, 1924. In his speech to open the meeting he laid great stress on the work done in interconnection of stations and on the future of what today we would call network broadcasting. He could see evidences of the future in the coast-to-coast broadcasts taking place in the Presidential campaign at that very time.

He felt the "little fellow" should be able to tur in on his local station the greatest music and entertainment of the nation, the "pronouncements of public men" and other matters of national interest. He believed this could be accomplished only by regularly organized interconnections "on a national basis of nationally organized and directed programs for some part of the day in supplement to local material."¹

He complimented AT&T for its development work in interconnection by wire, and Westinghouse for its work in interconnection by short wave. Both companies had proved the

¹Third National Radio Convention, 1924, "Recommendations for Regulations of Radio," p. 3. Quotation from an address by Secretary of Commerce Herbert C. Hoover.

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practicability of their systems in the election campaign then in progress. He pointed out these companies had brought national events to three-fourths of the country several times, and to the whole country at least twice at expenditures of hundreds of thousands of dollars made without direct consequential return. "This service deserves the appreciation of the public, for it has demonstrated this great thing to be practicable," Hoover said.

He stressed the need of a national programming organization to work through a system of interconnection, and with a definite basis of support. He did not advocate a government organization.¹

There is likely to be confusion over the nomenclature for station categories at this time. In the second conference the high-powered stations were called A stations. In the third conference these were categorized as B stations, and finally as Class I. Suffice it to say, the high-powered stations by 1924 had increased from 44 to 56 with 46 others under construction or proposed. In the meantime, smaller stations with less power had decreased about 40 in number.

The delegates to the Third National Radio Conference learned that broadcasting in the nation had cost ten million

¹In thinking of support Hoover evidently did not have direct advertising in mind. He said that a reader of a newspaper has an option whether or not he will read an ad, but if a speech by the President was to be used as the meat in a sandwich of two patent medicine advertisements there would soon be no radio left.



dollars the past year, and there had been no substantial income. The operators of the high-powered stations could be said to have direct interest in the publicity legitimately resulting from their own broadcasting.

The recommendations of this Third National Radio Conference were:

- That the present broadcasting band be extended to 550-1500 kilocyles frequency (545-200 meters wave length), and that from this point on frequencies in kilocycles instead of wave length in meters be used to designate a station's place in the radio spectrum.
- 2. That reclassification and reassignment of stations be made with Class I for high-powered stations (500 to 1000 watts, and later a contemplated 5,000 watts); Class II for stations not as strong as Class I or covering as large an area; Class III, for stations of local range with 100 watts or less power. A chart of stations by classification is, as follows:

Class	<u>Kilocycles</u>	Meters	Number of Channels
I	550 - 1070	545 - 280	53 + 10 to be added
II	1090-1400	275-214	32
III	1420-1460	211-205	5

This would make it necessary to reassign new frequencies to all former Class C stations which were then operating on 833 kc (360 meters).

- 3. That the policy of no censorship of programs should be continued.
- 4. That, since interconnection had proved practicable in recent months, a continuing committee work cut plans for its full accomplishment. Fittingly enough Secretary Hoover's opening speech to the conference was broadcast over about a dozen interconnected stations.



It was noted that Congressman White presented a new radio bill in Congress but that it had not come to a vote before adjournment in June, 1924. After the Third National Radio Conference that fall, Hoover thought it would be better strategy to have a short amendment to the Wireless Act of 1912 to give him necessary powers of regulation until a more complete bill could be written than it would be to attempt to pass an entirely new radio act. With the industry changing rapidly it might be some time before Congress could agree to all the details necessary for a full-scale regulatory act.

Therefore, Herbert Hoover asked Wallace White to work for the short amendment rather than the broad bill. The text of the amendment suggested by Hoover was:

The wave length of every radio transmitting station for which a license is now required by law, its power, emitted wave, the character of its apparatus, and the time of transmission shall be fixed by the Secretary of Commerce as in his judgment and discretion he shall deem expediant, and may be changed or modified from time to time in his discretion.

The House Committee on Merchant Marine and Fisheries to whom the original bill was assigned, was unwilling to substitute the amendment, so there was no further action in the 68th Congress.

The remarks attributed to E. F. McDonald, Jr., president of the National Association of Broadcasters may have been typical of what many in the industry thought of the

¹<u>Radio Broadcast</u>, March, 1925, p. 891.

amendment. Mr. McDonald said he thought the amendment gave too much power to the Secretary of Commerce but that he would favor it if Herbert Hoover could personally guarantee that he would live one hundred years more. What bothered Mc-Donald was: Who would be Secretary after Hoover?¹

The Fourth National Radio Conference was called November 9-11, 1925 by Herbert Hoover. The meeting was not so important for what it accomplished as for the analysis presented of the radio situation of that day and the problems which had to be solved.

Hoover stressed the great growth in the power of radio stations. There had been only two stations in 1924 with power over 500 watts. There were fifty-nine in 1925. Thirty-two of the fifty-nine used 1,000 watts, twenty-five used 5,000 watts, and the other two used even more power. High power in stations seemed to be here to stay because it gave clearer reception, helped to overcome static and the difficulties of summer broadcasting.

Also, with this increase in power came increase in range of the station and the chance of interfering with other stations. First consideration had to be given to the listener if there was a possibility of overcrowding the air. Should the number of stations be limited? Should local influence be considered in selecting licensees for stations?

¹Radio Broadcast, March, 1925, p. 891.



It was necessary to divide time on the air into smaller segments for each station as the number of stations increased. This was especially true of the low-powered stations. In some cases, a station's time might be a few hours a day, or a day or two a week, or a few hours on one or two days a week. All this reduction in time was co-incident with the rise in cost of construction of radio stations. Could a station owner with an investment of \$150,000 or more be kept happy on an operating schedule of two hours per week?

Herbert Hoover was also still concerned about radio advertising. He realized by this year of 1925 advertising was beginning to help pay the way of radio. But he said he wanted to reiterate what had been said in previous conferences "that advertising in the intrusive sense will dull the interest of the listener and will defeat the industry. Furthermore, it can bring disaster to the very purpose of advertising if it creates resentment to the advertiser. If we can distinguish, on the one hand, between the unobtrusive publicity that is accompanied by a direct service and engaging entertainment and obtrusive advertising, on the other, we may find solution."¹

The Fourth Conference went on record with resolutions:

- 1. Against direct advertising.
- 2. Recommending the issurance of permits before construction could be started on radio stations.

¹Proceedings of the Fourth National Radio Conference, p. 5 (1925).

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- 3. To establish a scale of license fees for broadcasting, telephone, and telegraph stations.
- 4. For longer license periods (then only 90 days). Five year periods with preferential consideration to license holders seeking renewals were recommended.
- 5. That no more broadcasting licenses be granted until the present number was substantially reduced.
- 6. That rebroadcasting of programs be prohibited unless the permission of the originating station is secured.
- 7. That public interest be the basis of the broadcasting privilege.
- 8. That the practice of holding licenses inactive for possible resale be frowned upon.

The members of this short conference discussed the need for adequate legislation to regulate the industry as they had in the three previous meetings. Consensus seemed to be that the Secretary should have power to make regulations necessary to administer any legislation passed. It was felt licenses should be granted only to those who, in the opinion of the Secretary, operated in the public interest. It was felt there should be a means of appeal from any decision of the Secretary.

This conference, as those before, would give the Secretary the right to classify stations, fix and assign call letters, wave lengths, power, location, time of operation, character of emission, and duration of license. Also they believed the Secretary should be able to suspend or revoke licenses for failure to maintain regular operation



without just cause, or for violation of terms of license regulations, of federal radio law, or an international treaty.

The general outline of some of the regulatory powers later given to the Federal Radio Commission was beginning to shape up. But Congress could not agree to any plan in spite of the continued efforts of Congressman White and his colleague in the upper house, Senator Clarence Dill of Washington.

A crisis faced the industry before Congress finally took action. All the cooperative effort of the industry fell like a house of cards when the Zenith radio station in Chicago defied the Department of Commerce for what it felt was an unjust assignment of air time in 1926.

The Zenith station, WJAZ, was licensed on the same frequency as KOA, Denver, a General Electric station. WJAZ was granted air time of two hours per week; KOA, the older station was using 166 hours, the remainder of the available time.

WJAZ could get no more time allotted to it, therefore, jumped to a neighboring frequency where there was free time. This particular channel was reserved for a Canadian station.

When WJAZ persisted in using the unauthorized channel, a criminal action was brought against the station in U. S. District Court in Chicago.¹ Judge Wilkerson rendered a

¹ <u>United States v. Zenith Radio Corporation</u>, 12 F (2nd) 616 (1926).



decision of not guilty, saying it would be unconstitutional to impose restrictions on use of frequency and time of operation of a radio station. Acting Attorney General Donovan shortly afterward gave as his opinion that the Secretary had no authority to regulate power, frequency, hours of operation, or to withhold licenses, under the Act of 1912.

The court decision and the Attorney General's opinion which upset the cooperative system of regulation forced the passage of legislation creating the Federal Radio Commission in 1927.

It was necessary for a Joint Committee of Congress to work out a compromise radio bill because there was threat of utter chaos in the industry. With no law, no station need keep its assigned frequency, time, or power. The federal government was powerless.

First, Congressman White introduced a new bill in the House calling for regulatory power vested in the Secretary of Commerce. The bill was passed by the House and sent to the Senate. The upper house so emasculated the bill that not much was left of the original but the introduction. In the end, a Joint Committee worked out the compromise bill which passed both chambers and was quickly signed by President Coolidge.

The Radio Act of 1927 created a five member Federal Radio Commission, drawing one member from each of five regions of the country.¹ For the first year after

¹44 Stat. 1162-1174.

appointment the Commission was to be the licensing authority. It was to classify and license stations, assign frequencies, specify equipment acceptable to use, decide locations where stations could operate, act to prevent interference to broadcasting, and generally regulate licensees. It had authority (with subpoena powers) to hold hearings on complaints, on revocation of licenses, and on other matters relating to radio law.

After the first year, the Secretary was to have the licensing power, and, in fact, to take over most of the regulatory power exercised by the Commission the first year. The Commission, however, was not to relinquish its power of license revocation or of review of any decision of the Secretary under the act.

The Radio Act of 1927 was a compromise, but at last after nearly seven years there was statutory regulation. The early formative years were over, the pattern was set by the Act. It also served as a design for the Communications Act of 1934 under which the present Federal Communications Commission was formed.

Looking back at the struggle for regulation after thirty-five years, Mr. Hoover said it was a very important milepost because it established once and for all that the air waves belonged to the public. No one, no licensee, no stockholder could have a vested interest. The air waves belonged to the public which in turn gave licenses to

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private business firms to use in the public interest. There was to be no government control of programming so freedom of speech was protected.¹ The Act established these basic principles beyond any question or doubt.

Possibly it was necessary that radio went through all its difficulties before it became shaped into a pattern. Owen D. Young had a theory about that time concerning the necessary throes a new industry or art had to suffer before its course was defined well enough to put up legal strictures. Tarbell quoted Young as saying in 1919 when RCA was founded and before anyone dreamed of broadcasting entertainment in millions of homes:

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. We know from our own organization that each man is certain that his particular notion is one and the only one on which progress can be made.²

¹Herbert C. Hoover in an interview with the writer, November 3, 1961, New York.

²Tarbell, op. cit., p. 135.



CHAPTER XV

REVIEW AND FORECAST

It became apparent in the early Twenties that a means had to be found to finance our broadcasting beyond that of manufacturers' subsidies, or of endowments, or of contributions, or of taxation. The American Telephone and Telegraph Company soon demonstrated in its experimental work with WEAF that a station could be financed by advertising sponsors.

But even back in the Twenties, big advertisers in America thought in terms of nationwide messages. If radio was to sell the volume of advertising time it needed to finance the growing costs of broadcasting, it had to satisfy the firms with the big advertising budgets. This meant a message had to go beyond the 100 mile range of the average station. This could be accomplished by either building stronger stations, by linking two or more stations together, or by using the new short wave technique Westinghouse was experimenting with--or by doing all those things.

AT&T developed interconnection by land wire, Westinghouse by short wave. Many problems besides stringing wires or transmitting the proper short wave were involved. Fading, interference, and mechanical difficulties were between the



drawing board and the accomplishment. But it was worked out.

A dramatic demonstration of the practicability of nationwide broadcasting was needed. One method was in a Defense Day demonstration, but the real opportunity came during the political campaign of 1924. Beginning with the broadcasts of the political conventions in June and July, 1924, the nation began to think in terms of wide-scale radio. Before the speeches were over in November, networks with as many as twenty-six stations had been used. Twenty million people, literally from Maine to California, were believed to have heard the Presidential candidates speak.

Advertisers watched this demonstration, and grasped the opportunity to broadcast coast-to-coast. It was not long before broadcasting's financial problems were over.

National broadcasting was proved practicable. The next logical step was to form companies to organize national networks to accommodate this business. This led to the founding of NBC and CBS in the Twenties, with others to follow later.

But there still was chaos. There still was uncertainty as to the relationship between government and broadcaster, between broadcaster and public. Finally, a crisis arose which forced Congress to action to bring order out of chaos. WJAZ, the Zenith station in Chicago, maintained the government had little power in broadcasting beyond issuing



licenses to those who wanted them. Congress hurriedly passed the Radio Act of 1927 to give the government the needed regulatory power.

As Mr. Hoover said, the Act of 1927 established the basic fact that the public owned the air waves, that the government, for the people, licensed broadcasters, without conferring any vested interests, to use frequencies at the times and power it designated. The purpose of the licensee was to broadcast in the public interest. The government was given no censorship power, so free speech was protected. At last there was order.

Out of the Twenties, then, came American broadcasting, generally operating as private enterprise, in the public interest, being financed by advertising sponsors, being free of censorship, but being regulated by a federal government board which set conditions of licensing and operation.

Changes have taken place since the Twenties. The Federal Radio Commission has been replaced by the Federal Communications Commission. Television has grown to be a great new medium; radio programming has consequently changed. The number of broadcasting stations has grown from a few hundred to several thousand, and new networks have been formed, until today few homes in the country do not have a radio or television, or both.

The future of broadcasting holds endless possibilities, among them: more networks, more competition from other media,

more responsibility for the broadcaster, a more common use of television in the UHF range, an entirely different realm of entertainment through Pay TV, radiocasting on light waves, world-wide television through satellites in the sky, and even interplanetary broadcasting.

How much will this change the patterns of broadcasting set in the Twenties?

There will be change, of course, but little of this will be change of basic principles. The Twenties were the formative years, the years in which the direction American broadcasting was going was quite plainly charted. The highway may develop into a super highway but the direction and route will be the same.

The future with all its marvels and wonders will likely show broadcasting fitting into the same basic framework of ownership, of financing, of responsibility to the public, and of government regulation that emerged from the chaos of the early Twenties.

May the public always retain its ownership of the air waves, and demand that licensees operate in the public interest and for the public convenience and necessity!



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APPENDIXES

APPENDIX A

Radio Receiving Equipment Sales in the U.S.A.:

1921	\$ 5	million
1922	60	million
1923	136	million
1924	358	million
1928	650	million
1929	843	million

A collation from Sydney W. Head, <u>Broadcasting in</u> <u>America</u> (Boston: Houghton Mifflin Co., 1956), pp. 114-115, and Robert J. Landry, <u>This Fascinating Radio Business</u> (Indianapolis: The Bobbs-Merrill Co., 1946), pp. 41-42.

APPENDIX B

BUSINESSES ENGAGED IN BY OWNERS OF BROADCASTING STATIONS¹ February 1, 1923

Radio	and	elec	etri	cal	. ma	nuf	Cact	ture	ers	and	d de	eale	ers	•	•	•	222
Educat	iona	l ir	nsti	tut	ion	S	•	•	•	•	•	•	•	•	•	•	72
Newspa	pers	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	69
Depart	ment	sto	res	•	•	•	•	•	•	•	•	•	•	•	•	•	29
Auto a	nd b	atte	ery	con	npan	ies	s ar	nd (cycl	le d	leal	lers	3.	•	•	•	18
Music	and	musi	cal	. ir	str	ume	ent	and	d je	ewel	lry	dea	alei	rs	•	•	13
Church	es a	nd Y	ΜСА	's	•	•	•	•	•	•	•	•	•	•	•	•	12
Police	, Fi	re,	and	Ci	ty	•	•	•	•	•	•	•	•	•	•	•	7
Hardwa	re s	tore	s	•	•	•	•	•	•	•	•	•	•	•	•	•	6
Banks	and	brok	ters	•	•	•	•	•	•	•	•	•	•	•	•	•	5
Mine s	uppl	ies,	ma	rbl	е,	and	l oi	11 0	comp	bant	les	•	•	•	•	•	5
Teleph	one	and	tel	egr	aph	cc	mpa	anie	es	•	•	•	•	•	•	•	5
Stock	yard	s, p	oul	try	r fa	rms	, a	and	gra	ain	dea	alei	?s	•	•	•	4
Railro	ads	and	pow	er	com	ipan	ies	5.	•	•	•	•	•	•	•	•	4
State '	bure	aus	•	•	•	•	•	•	•	•	•	•	•	•	•	•	4
Clubs a	and	soci	eti	es	•	•	•	•	•	•	•	•	•	•	•	•	3
Parks a	and	amus	seme	nts	•	•	•	•	•	•	•	•	•	•	•	•	2
Theate:	rs.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2
Laundr	ies	•	•	•	•	•	•	•	•	•	•	٥	•	•	•	•	1
Unknow	n.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	93
													Tot	al	•	•	516

¹Banning, <u>op. cit</u>., pp. 132-133.

APPENDIX C

CALVIN COOLIDGE'S RADIO TALKS Previous to the Republican Convention, 1924¹

December 4, 1923: Message to Congress. December 10, 1923: A speech from the White House. February 12, 1924: Lincoln's Day address before the Republican National Club at the Waldorf-Astoria Hotel, New York. Broadcast over WEAF and WJZ. February 22, 1924: Washington's Birthday speech from the White House. April 14, 1924: Speech to Daughters of the American Revolution. April 22, 1924: Speech to the Associated Press Convention, over eleven sta $tions.^2$ Address on "Better Homes." May 10, 1924: May 30, 1924: Memorial Day Speech from Arlington Cemetry over WEAF, WCAP, WJAR. June 6, 1924: Spoke at the National Oratorical Contest with Chief Justice Taft. Broadcast over WCAP and WEAF.

¹Archer, <u>History</u> . . ., <u>op. cit</u>., pp.323ff. ²Shurick, <u>op. cit</u>., p. 266.

APPENDIX D

RADIO STATIONS BROADCASTING POLITICAL CONVENTIONS IN 1924¹

Republican, Cleveland, June 10-12, 1924.

WEAFNew York	KDKAPittsburgh
WCAPWashington	WJAXCleveland
WNACBoston	WTAMCleveland
WJARProvidence	WLWCincinnati
WJZNew York	WGNChicago
WGYSchenectady	WLSChicago
WRCWashington	KSDSt. Louis
WGRBuffalo	WDAFKansas City, Mo

Democratic, New York, June 24- July 8, 1924.

The stations listed above plus:

WDBHWor	rcester	WSBAtlanta
WMAFS.	Dartmouth,Mass.	WMAQChicago

During the Democratic Convention WJZ and WGY were interconnected by Western Union wires rather than a part of the AT&T long lines interconnection.

1Banning, <u>op. cit</u>.,pp. 240-241.

APPENDIX E

RADIO STATIONS WHICH CARRIED COOLIDGE'S CHAMBER OF COMMERCE SPEECH, OCTOBER 23,1924¹

WCAPWashington	KPOSan Francisco
WEAFNew York	WMAFSouth Dartmouth
WJARProvidence	WGRBuffalo
WEEIBoston	WDBHWorcester
WCAEPittsburgh	WSAICincinnati
WGYSchenectady	WOCDavenport
WGNChicago	WDAFKansas City
KSDSt. Louis	KLZDenver
WOAWOmaha	KFOASeattle
KLXOakland	KHJLos Angeles
KFILos Angeles	KGWPortland, Oregon

¹Gleason L. Archer, <u>Big Business and Radio</u> (New York: The American Historical Company, Inc., 1929), p. 168.
APPENDIX F

TYPICAL DAY OF POLITICAL BROADCASTING FROM STATION WAGH¹ RICHMOND HILL, LONG ISLAND

12:00	Noon	to 12:15 P.M.	Political talk by Prof. C. E. Scattergood
12 : 15	P.M.	to 12:30 P.M.	Political talk by Mrs. R. C. Deer
12:30	Ρ.Μ.	to 12:45 P.M.	Political talk by Barr McIntosh
12:45	Ρ.Μ.	to 1:00 P.M.	Political talk by Dr. E. S. Van Zile
5:00	P.M.	to 5:15 P.M.	Political talk by E. R. Terry
5 : 30	Ρ.Μ.	to 5:45 P.M.	Political talk by H. Guttman
5 : 50	Ρ.Μ.	to 6:00 P.M.	Political talk by A. O. Trozier
8:00	P.M.	to 8:30 P.M.	Senator James W. Wadsworth
8:30	Ρ.Μ.	to 8:40 P.M.	Music
8:40	P.M.	to 8:50 P.M.	Political talk by Dr. John Callahan
8:50	P.M.	to 9:15 P.M.	Music
9 : 15	Ρ.Μ.	to 9:25 P.M.	Political talk Congressman F. C. Hicks
9:25	P.M.	tó 9:30 P.M.	Music
9:30	Ρ.Μ.	to 10:00 P.M.	Political talk by Prof. R. M. Elroy
10:00	Ρ.Μ.	to 10:30 P.M.	Orchestra, Dramatic numbers

1_{New York Times}, November 1, 1924, p. 10.

APPENDIX G

LIST OF STATIONS INTERCONNECTED FOR BROADCAST OF REPUBLICAN RALLY FROM STAGE OF METROPOLIAN OPERA HOUSE, NOVEMBER 1, 1924¹

WEAFNew York	WCXDetroit
WFIPhiladelphia	WGNChicago
WKBFProvidence	WLWCincinnati
WNACBoston	KSDSt. Louis
WDBHWorcester	WOCDavenport
WGYSchenectady	WOAWOmaha
WGRBuffalo	WDAFKansas City
KDKAPittsburgh	WCALNorthfield, Minn.

1<u>New York Times</u>, November 1, 1924, p. 1.

APPENDIX H

- THE RADIO STATIONS INTERCONNECTED FOR COOLIDGE'S ELECTION EVE SPEECH, NOVEMBER 3, 1924¹
 - WCAP--Washington WLW --Cincinnati WEAF--New York WGN --Chicago WJAR--Providence KSD --St. Louis WKBF--Providence WDAF--Kansas City WEEI--Boston WOC --Davenport WNAC--Boston WCAL--Northfield, Minn. WGY --Schenectady KLZ --Denver WDBH--Worcester KPO --San Francisco WGR --Buffalo KFI --Los Angeles WCAE--Pittsburgh KHJ --Los Angeles KDKA--Pittsburgh KGW --Portland, Oregon WTAM--Cleveland KFOA--Seattle WHK --Cleveland KLX --Oakland

1_{New York Times}, November 4, 1924, p.3.

APPENDIX I

LITERARY DIGEST POLL, 1924

The <u>Literary Digest</u> magazine conducted a straw vote poll in the campaign of 1924 which was watched with great interest.

From the perspective of the Sixties so accustomed to the more accurate election polls conducted by Gallup and others, the <u>Literary Digest</u> polls were unscientific and amateurish. But they continued to hold the public interest until the fatal predictions that Landon would win over Roosevelt in 1936.¹

The respondents polled by <u>Literary Digest</u>, because of the method used, did not represent a cross section of the nation's voters but were weighted on the side of the higher socio-economic levels, and preponderantly Republican.

Some authenticity was given the polls because of the fallacy of connecting sheer numbers with accuracy. Before election day nearly two and one-half million straw votes had been mailed to the magazine.

From the first returns of the poll to the last, Coolidge's lead was never in jeopardy. Likewise, every

¹Samuel Eliot Morison and Henry Steele Commager, <u>The</u> <u>Growth of the American Republic</u> (New York: Oxford University Press, 1942), II, p. 621.

compilation of votes showed La Follette running second, but only slightly ahead of Davis.

The <u>Literary Digest</u> poll total for September 27, 1924.¹

Coolidge (R)	808,340
Davis (D)	275,674
La Follette (P)	351,178

The respondents in this poll indicated they had voted in the 1920 Harding-Cox election as follows:

Republican	828,031
Democratic	324,654
Miscellaneous	15,000
Did not vote	283,444

The <u>Literary Digest</u> poll total for October 13, 1924:²

1,293,378
487,782
496,006

The respondents in this total indicated they had

voted in the 1920 Harding-Cox election as follows:

Republican	1,288,572
Democratic	548,133
Did not vote	441,994

The <u>Literary Digest</u> poll, final total, November 1, 1924:³

Coolidge (R)	1,348,033
Davis (D)	505,410
La Follette (P)	508,516

¹<u>Literary Digest</u>, October 11, 1924, p. 6. ²<u>Ibid</u>., October 25, 1924, p. 6. ³<u>Ibid</u>., November 1, 1924, p. 1.

APPENDIX J

INDIRECT ADVERTISING ON RADIO ABOUT 1924-1925¹

Announcement at the opening of program:

"Relax and smile, for Goldy and Dusty, the Gold Dust Twins, are <u>here</u> to send their <u>songs there</u> and 'brighten the corner where you are.' The Gold Dust Corporation, manufacturer of Gold Dust Powder, engages the facilities of station WEAF, New York, WJAR, Providence, WCAE, Pittsburgh, WGR, Buffalo, WEEI, Boston, WFI, Philadelphia, WEAR, Cleveland so that the listeners-in may have the opportunity to chuckle and laugh with Goldy and Dusty. Let those Gold Dust Twins into your hearts and homes tonight and you'll never regret it, for they <u>do</u> brighten the dull spots."

Announcement at the close of the program:

"Perhaps you open your hearts and homes to them each week--Goldy and Dusty, the Gold Dust Twins, who come to 'brighten the corner where you are' and perhaps you have written them of your pleasure, or perhaps you have delayed. Won't you then do it tonight? Notes of encouragement from the audiences of WEAF, New York, WJAR, Providence, WCAE, Pittsburgh, WGR, Buffalo, WEEI, Boston, WFI, Philadelphia,

¹Banning, <u>op. cit</u>., p. 262.

and WEAR, Cleveland serve to brighten these dusky entertainers. Address the Gold Dust Twins, care station WEAF, 195 Broadway, New York City, or to the station through which this program has reached you."

APPENDIX K

MUSICAL ORGANIZATIONS AFFECTING THE BROADCASTING INDUSTRY

SESAC, INC. This was formerly the Society of European Stage, Authors, and Composers, Inc. It was organized in 1930 by Paul Heinecke to license American performing rights to European music. When Hitler and World War II threw European copyright agreements into confusion, the organization turned to securing rights for American music not normally handled by ASCAP. This led them into the field of folk music, regional and hill billy tunes and other such areas. The company also went into electrical transcription particularly of "mood" music needed by the industry to set backgrounds for dramatic situations. The new translation of SESAC is Selected Editions of Standard American Catalogs.

<u>MPPA</u> is the Music Publishers Protective Association, a trade association of about sixty-five publishers who control about 80 per cent of the copyrighted popular musical compositions published in the United States. MPPA is interested primarily in exploiting the mechanical reproduction rights under the copyright law. These rights are for phonograph records, discs, tapes, transcriptions, motion pictures, and television films.



<u>SPA</u> is the Songwriters Protective Association which was formed in 1931 as a voluntary unincorporated association of approximately 1,400 composers and authors to protect the interest of members in dealings with publishers and ASCAP. It promoted a uniform popular song writers contract with publishers and worked for improvement of the copyright law.

<u>AMP</u>, Associated Music Publishers, Inc., was a performing rights society which by arrangement or purchase claimed control of 600,000 foreign musical numbers. There were about 150 stations licensed by AMP by the end of 1934 at a monthly fee equivalent to the station's one-fourth hour day-time charge. BMI acquired AMP in 1940.

<u>G. Ricordi Company</u> of Milan, Italy had a musical catalog of 130,000 items including Puccini. This company was associated with ASCAP in the early days but was later withdrawn. Then for several years its music was unavailable in America. NAB in 1933, through its Radio Program Foundation, made arrangements with the controlling family under which licenses were granted to stations for annual rates of \$30 to \$300. NAB's agency was dissolved after 1934 and Ricordi licensed directly. Shortly after BMI was formed this company acquired the Ricordi catalog.

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APPENDIX L

Correspondence from Ernst F. W. Alexanderson 1132 Adams Road, Schenectady, 8, N. Y.

March 20, 1962

Dear Mr. Weeks:

Thank you for your letter of February 13. Due to an attack of the flu I have not been able to answer you any sooner.

The agreements between General Electric Company and the British Marconi Company before the formation of the Radio Corporation of America were of an informal or personal nature.

The American Marconi Company, a subsidiary of the British Marconi Company, had built a large radio station for transatlantic communication at New Brunswick, N. J. It had an antenna one mile long and the station was designed for a powerful spark transmitter which had been developed by the British Marconi Company. The station had not been tested, but Marconi felt that a more advanced system would be desirable. He had heard about my alternator, and he wrote me of his interest in this development. The result was that he visited General Electric in Schenectady in 1915. A large alternator was then set up for test in the factory, and I was able to demonstrate not only the alternator but also the magnetic amplifier control which was adapted to telephony as well as telegraphy. Marconi was so impressed with the demonstration that he offered to General Electric to have the alternator installed in the New Brunswick station to take the place of the spark transmitter for which the station was designed.

The alternator was installed early in 1917, the time when United States entered World War I. For national security the station was taken over by the Navy, a Navy officer was put in command with a guard of marines. The object was to test and develop the new system of communication. I could therefore continue to operate the station under the authority of the Navy. The tests were very successful and a still larger alternator was installed. The station was then put in



service for the much needed communication with the armies in France. It was furthermore found that the signals were clearly and eagerly received in Eastern Europe and President Wilson's "14 points" were broadcast extensively for the benefit of those peoples. President Wilson's ultimatum which led to the Armistice was also transmitted directly to the German Government.

The control of the alternator was equipped for telephony as well as telegraphy. During President Wilson's two voyages to the peace conference in Versailles the station was used for telephonic communication with his ship George Washington and transatlantic telephony to Europe was demonstrated.

After the war the American Marconi Company demanded the return of the station from the Navy. The British Marconi Company was negotiating with General Electric to buy the world rights to the new system of communication. I attended a conference where the terms of such an agreement were approved by the officials of General Electric. The proposed agreement was put in the mail to England, but then President Wilson intervened and the proposed agreement was cancelled before it arrived.

Mr. Owen D. Young responded to President Wilson's appeal by a plan whereby General Electric bought the controlling stock interest in American Marconi Company. This was in 1919 and the new company started operation as Radio Corporation of America in 1920. To begin with it was a subsidiary to General Electric and I served as Chief Engineer for four years without leaving General Electric. However, when the companies separated I decided to remain with General Electric.

This brings the story up to the point which you have in mind and where further developments are well known.

Sincerely,

E. F. W. Alexanderson

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- White, Llewellyn. <u>The American Radio</u>. Chicago: The University of Chicago Press, 1947.
- White, William Allen. <u>A Puritan in Babylon</u>. New York: Macmillan Company, 1938.
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Privately Printed Books

- British Broadcasting Corporation. <u>Annual Report and Accounts</u>. 1958-1959.
- British Broadcasting Corporation. <u>BEC Handbook</u>. 1960.
- The Evening News Association. WWJ, The Detroit News. 1922.
- Independent Television Authority, <u>Annual Report and</u> <u>Accounts</u>, 1958-1959,
- National Association of Broadcasters. <u>Broadcasting in the</u> <u>United States</u>, 1933.
- National Broadcasting Company, NBC and You. 1944.
- National Carbon Company, About the Eveready Hour. 1927.
 - ___. The Eveready Book of Fadio Stars. 1932.
- Radio Corporation of America. <u>Thirty Years of Pioneering</u> and Progress. 1949.
- The Sunday Times (London). TV in Our Lives. 1958.

Interviews

- Harold Arlin, Mansfield, Ohio Mr. Arlin has been called the world's first regular radio announcer. He worked for KDKA in the early Twenties, and has vivid memories of those exciting times.
- A. H. Brust, New York City

Mr. Brust is salesmanager of the Union Carbide Co. which is the parent company of National Carbon Company. Mr. Brust worked in National Carbon sales force during the Eveready Radio Hour days. He had advertising material which he lent.

Henry C. Edmunds, Dearborn, Michigan Mr. Edmunds has charge of the Research and Information Service at Ford Motor Company. He made information in the Archives department fully available.

- James E. Hanna, New York City Mr. Hanna has charge of the radio and television division of N. W. Ayer & Son advertising agency. He was able to furnish information on the early activity of his company in radio advertising.
- Jay G. Hayden, Washington, D. C. Mr. Hayden is the senior Washington representative of the <u>Detroit News</u>. His memories as a newspaper man go back to covering the Peace Conference in Paris after World War I. He furnished much color on the Democratic Convention of 1924.
- William J. Hoffman, Jr., New York City Mr. Hoffman is in charge of radio for BBDO advertising agency. He was able to supply some radio studies.
- Herbert C. Hoover, New York City The former President, and Secretary of Commerce, was inspiring to talk with. He made many basic things about radio regulation clear.
- G. W. Johnstone, New York City Mr. Johnstone was the ship's radio operator on the boat taking President Wilson to France on his second trip. Mr. Johnstone later became head of publicity for station WEAF in the early days.
- Mildred Joy, New York City Miss Joy is head librarian at NBC. She was able to give good suggestions for radio research.

Libraries Consulted

Columbia Broadcasting System Library, New York City.

Columbia University Butler Library, New York City Oral History Collection.

Library of Congress, Washington, D. C.

Detroit News Catlin Library, Detroit, Michigan.

Detroit Public Library, Detroit, Michigan.

Michigan State University Library, East Lansing, Michigan.

Michigan State Library, Lansing, Michigan.

National Archives, Washington, D. C.

National Broadcasting Company Library, New York City.

Olivet College Library, Olivet, Michigan.

University of Michigan Library, Ann Arbor, Michigan.

Radio Magazines of the Twenties Consulted

Popular Radio

Radio

Radio Age

Radio Broadcast

Radio Digest

Radio News

Correspondence

- Alexanderson, Ernst F. W., Schenectady. Inventor of the Alexanderson Alternator.
- American Telephone and Telegraph Company, New York. Furnished copy of Banning's book.
- Archer, Gleason L., Pembroke, Massachusetts. Author of two standard radio histories.
- Arlin, Harold W., Mansfield, Ohio. Pioneer radio announcer.
- N. W. Ayer and Son, Philadelphia and New York. Information received from both offices.

Bankers Life Company, Des Moines. Detailed information on La Follette incident.

Barton, Bruce, New York City. Author of early radio articles.

Broadcast Music, Inc., New York City. Suggested source material on ASCAP and BMI.

- CBS News, New York City. Sent invitation to visit library,
- Democratic National Committee, Washington. Answered query on 1924 campaign.

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- Dunlap, Orrin E. Jr., Great Neck, New York. Early radio editor and author of several books on radio. Edmunds, Henry C., Dearborn, Michigan. Offered use of Ford Motor Co. archives. Ensign, William H., New York City. Early radio official, gave information on Twenties. Fittkau, Carl R., Pittsburgh. Westinghouse publicity department, very cooperative. Haeffner, Joseph, Buffalo. Early radio, now with WBEN. Hay, Mrs. Dudley C., Detroit, Michigan. Former Republican National Committeewoman. Hayden, Jay G., Washington, D. C. Helpful information from newsman of the Twenties. Heinz Food Company, Pittsburgh. Supplied valuable photostats of house organ. Hoffman, William, New York City. BBDO official supplied names of possible sources. Kirchhofer, A. H., Buffalo. Radio pioneer now with Buffalo newspaper. La Follette, Philip, Milwaukee. Senator's son, memory of 1924 not very good. Loomis, Alfred Lee, New York City. Verified story of early WEAF. National Archives, Washington, D. C. Checked Borah Committee report. National Association of Broadcasters, Washington, D. C. Suggested sources for research. Ponting, Herbert, Pampano Beach, Florida. Information on WWJ finances sought. Radio Corporation of America, New York City. Suggested sources of information.
- Republican National Committee, Washington, D. C. Suggested sources of information.

- Thomas, Norman, New York City. Reminisced on campaign of 1924.
- Union Carbide Company, New York City. Offered cooperation in research.
- Wagoner, Clyde, Schenectady. Former publicity chief for General Electric stations.
- WWJ Radio Station Made arrangements for use of Catlin Library.
- Young, John Orr, New York City. Made arrangements for interview with Mr. Johnstone.
- Young, Owen D., St. Augustine, Florida. Verified details in Tarbell's book.

Reports and Documents

The Congressional Record; Volumes 62-78.

- FCC Proposed Report, Telephone Investigation, 1938.
- FTC Report on Radio Industry, 1924.
- Fourth National Radio Conference, Proceedings, 1925.
- House Committee Hearings <u>Merchant Marine and Fisheries</u> 68th Congress, First Session on HR 7357 67th Congress, Fourth Session on HR 1416
- Senate Committee Hearings <u>Interstate and Foreign Commerce</u> 69th Congress, First Session on S 1 and S 1754
- Third National Radio Conference, Proceedings, 1924.

BIBLIOGRAPHICAL NOTES

Chapter II

The best material to be found in the United States on British broadcasting was written by an American, Burton Paulu. He has written two books: British Broadcasting (1956), and British Broadcasting in Transition (1961). Charles A. Siepmann, formerly with BBC but now living in the United States, compares American broadcasting to that of Britain, Canada, and other countries in Radio, Television, and Society (1950). Much factual information on British broadcasting can be gleaned from the annual reports of the Independent Television Authority and of the BBC. Furthermore, there is an annual BBC Handbook which goes into greater descriptive detail of the system than the annual report. The Sunday Times (London) conducted an extensive research of the audiences of the broadcast media in Britain in 1957. The newspaper printed a series of articles on this study between November, 1957 and April, 1958. This series has been published under the title, Television in Our Lives (May, 1958). Copies can be obtained from the Times. Hilde Himmelweit, A. N. Oppenheim, and Pamela Vince wrote Television and the Child (1958) which reports their extensive research into the effects of TV on children in Britain. Some of the studies were made before and after TV came to

certain areas. George A. Codding, Jr. wrote <u>Broadcasting</u> <u>Without Barriers</u> (1959). This is a UNESCO publication on international broadcasting containing a wealth of statistical information. Also valuable is UNESCO's <u>World Communi</u>cation: Press, Radio, Film (1950).

Chapter III

Marconi is the major subject of this chapter. Almost any history of wireless gives an account of the career of Marconi, but it is recommended thata popular biography such as Douglas Coe's <u>Marconi</u>, <u>Pioneer of Radio</u> (1942) and a more personal account such as the recently published biography, <u>My Father</u>, <u>Marconi</u> (1962) by the inventor's daughter, Degna Marconi, be read. Then to obtain the view of Marconi and his work from the standpoint of a scientific writer, read W. Rupert Maclaurin's <u>Invention and Innovation in the</u> <u>Radio Industry</u> (1949). This writer considers Marconi an innovator and entrepreneur more than a scientist.

Chapter IV

The stories of de Forest and Fessenden can be found in most radio histories. Gleason L. Archer's <u>History of Radio</u> <u>to 1926</u> (1938) is a standard source book. De Forest's autobiography, <u>Father of Radio</u>, is interesting. Orrin E. Dunlap, Jr. contributed well to radio history in his book of short biographies, <u>Radio's 100 Men of Science</u> (1944). His <u>Story</u> <u>of Radio (1935) is less valuable</u>. The Federal Trade Commission's <u>Report on the Radio Industry</u> (1924) is a concise

. report on the development of radio in the United States and should be regarded as good source material.

Chapter V

The story of the development of Alexanderson's Alternator and the importance of this generator to the radio industry is a fascinating part of radio history. Doctor Archer treats this quite fully in his history. The Alexanderson interview in the Columbia University <u>Oral History</u> project is primary source material as is the Alexanderson letter in Appendix L of this paper. Ida Tarbell's <u>Owen D</u>. <u>Young</u> (1932) describes quite fully Mr. Young's part in the founding of the Radio Corporation in order to keep the Alternator in America. David Loth's <u>Swope of GE</u> (1958) gives an interesting account of the development of GE during this period.

Chapter VI

Besides the histories of radio by Archer, Dunlap, and Maclaurin, already mentioned, there are several others commonly used as references: Francis Chase Jr.'s <u>Sound and</u> <u>Fury (1942); Robert Landry's This Fascinating Radio Business</u> (1946); E. P. J. Shurick's <u>The First Quarter Century of</u> <u>American Broadcasting (1946); and Llewellyn White's <u>The</u> <u>American Radio (1947)</u>. To date Archer's is probably the best. However, his book contains such a great amount of material the chronology sometimes becomes obscure, and the</u>


interpretation of the facts seems biased, particularly in favor of David Sarnoff.

The Westinghouse Electric Company has made available a mineographed history of station KDKA which is valuable. The Evening News Association, publishers of the <u>Detroit News</u> and owners of WWJ, one of the pioneer radio stations, published a booklet <u>WWJ</u>, <u>the Detroit News</u> (1922) which is an interesting account of the founding of the station, but it is less valuable than the Westinghouse material.

For primary source material on early radio there is nothing better than Columbia University's collection of <u>Oral History</u> interviews. A group of early radio men organized in later years as the Radio Pioneers. This group financed an <u>Oral History</u> project to interview radio personalities of the early days. These interviews were recorded on tape and later reduced to typescript. There are about forty of these interviews in typescript available in a special reading room for <u>Oral History</u> material in Butler Library, Columbia University, New York City.

Ample material on the early Ford radio stations can be found in the Ford Archives in the Ford Motor Company's main office building, American Road, Dearborn, Michigan.

Chapter VII

In addition to the early radio histories and the <u>Oral</u> <u>History</u> interviews previously mentioned, the story of radio in the Twenties, from another viewpoint, can be read in

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Herbert C. Hoover's <u>Memoirs</u> (1952). It is worthwhile to read issues of <u>Radio</u> <u>Broadcast</u>, the best radio periodical of the early Twenties dealing with the problems of broadcasting.

Chapter VIII

William Peck Banning's <u>Commercial Broadcasting Pioneer</u>, <u>The WEAF Experiment</u>, <u>1922-1926</u> (1946) is the most complete account of AT&T's role in early broadcasting. This book is the history recommended by AT&T. Anyone interested in the telephone company and early radio should also read Horace Coon's <u>American Tel.and Tel</u>.(1939), the Federal Communications Commission's <u>Proposed Report</u>, <u>Telephone Investigation</u> (1938), and the previously mentioned FTC <u>Report on the Radio</u> Industry (1924).

Chapters IX, X

Frederick Lewis Allen is one of the most quoted authors on the general background, the color, and the informal history of the Twenties. His <u>Only Yesterday</u> (1931), which deals with the decade, is his best-known work. His <u>The Big</u> <u>Change</u> (1952) is worth reading but it is a history of the first half century rather than just the Twenties. Preston W. Slosson's <u>The Great Crusade and After, 1914-1928</u> (1930), and Bruce Minton and John Stuart's <u>The Fat Years and the</u> <u>Lean</u> (1940) are less well-known to the general public, but they are worth consulting. Mark Sullivan's <u>Our Times</u>, <u>The</u> <u>Twenties</u>, vol.vi (1935) is less complete than his other

volumes but should be read by a student of the Twenties.

Other histories of the period which were found useful are: William E. Leuchtenburg's <u>The Perils of Prosperity</u> (1958); Richard Hofstadter's <u>The Age of Reform</u> (1960); Arthur M. Schlesinger, Jr.'s <u>The Crisis of the Older Order</u> (1957); Samuel Eliot Morison and Henry Steele Commager's <u>The Growth</u> <u>of the American Republic</u> (1942); Eric Goldman's <u>Rendezvous</u> <u>with Destiny</u> (1953); and Oscar T. Barck and Nelson M. Blake's <u>Since 1900</u> (1952).

There are several pictorial books which contain not only a photographic history of the period but also valuable textual material. Some of the more worthwhile are: Cleveland Amory and Frederick Bradlee's <u>Vanity Fair</u> (1960); Marvin Barrett and William Cahn's <u>The Jazz Age</u> (1959); Paul Sann's <u>The Lawless Decade</u> (1957); and Irving Settel's <u>A</u> Pictorial History of Radio.

There is no good history of the election campaign of 1924. Kenneth Campbell MacKay wrote <u>The Progressive Movement of 1924</u> (1947), but in this he gives little attention to the use of radio in the campaign. <u>Robert M. La Follette</u> (1953) by Bella and Fola La Follette contains one of the best accounts of the campaign. Kirk H. Porter's <u>National</u> <u>Party Platforms</u> (1924) is a good source book for details of the party platforms. Stefan Lorant's <u>The Presidency</u> (1952) contains descriptions of Presidential conventions and campaigns as well as voting results. The <u>New York Times</u> of



1924 contained good news coverage of the conventions and campaigns.

Malcolm Cowley seemed to catch the literary spirit of the Twenties in his <u>Exiles Return</u> (1956). Frank Luther Mott's <u>Golden Multitudes</u> (1947) is a more statistical study of the literary output. Van Wyck Brooks and Otto Bettman's <u>Our Literary Heritage</u> (1956) and David E. Scherman and Rosemarie Redlich's <u>Literary America</u> (1952) are both interesting literary histories amply illustrated with fine photography.

Of the memoirs (besides the Columbia <u>Oral History</u> series) which treat of the early days of radio, Graham Mc-Namee's <u>You're On the Air</u> (1926), Alfred N. Goldsmith and Austin C. Lescarboura's <u>This Thing Called Broadcasting</u> (1930), Leo Fitzpatrick's <u>Radio Realities</u> (1934), and Credo Fitch Harris' <u>Microphone Memoirs</u> (1937) all give first hand accounts of radio in the mid-Twenties when the Coolidge-Davis-La Follette election was held.

Biographies have been written about several of the principals of the conventions and campaign of 1924. The best book on Coolidge is William Allen White's <u>A Puritan in</u> <u>Babylon</u> (1938). There is no good biography of John W. Davis. The biography of La Follette by his wife and daughter, previously mentioned, seems to be the best. His autobiography does not cover the period of the election. Lincoln Steffen's <u>The Autobiography of Lincoln Steffens</u> (1931) contains a good

description of La Follette in his early Wisconsin days. Several books have been written about Al Smith. The most useful to the writer was Frank Graham's <u>Al Smith</u>, <u>American</u> (1945). Will Irwin's <u>Herbert Hoover</u> (1928) was probably written as a campaign biography, but it does have a good chapter on Hoover's work as Secretary of Commerce under Harding and Coolidge. For the Harding period there is nothing better than Samuel Hopkins Adams' <u>Incredible Era</u> (1939), a very readable book.

Several collections of character sketches contain pen portraits of leaders of this time. Among these books are Ike Hoover's <u>Forty-Two Years in the White House</u> (1934), Edward G. Lowry's <u>Washington Close-Up</u>s (1921), and Henry L. Stoddard's <u>As I Knew Them</u> (1927).

Harvey Wish's <u>Society and Thought in Modern America</u> (1952) and Merle Curti's <u>The Growth of American Thought</u> (1951) are standard works on the social and intellectual history of the period.

Chapter XI

<u>Radio Broadcast</u> magazine during the years 1922-1924 laid great stress on the question of who was to pay for broadcasting. Archer's history discussed this also, especially David Sarnoff's suggested solutions to the question. Ralph M. Hower in <u>The History of an Advertising Agency</u> (1939) described the early efforts of the N. W. Ayer agency to make advertising a practicable means of supporting radio.

Ì 1 - The Banning history of WEAF, previously mentioned, described the first major attempt at toll broadcasting.

Chapter XII

The ASCAP story, in its legal aspects, is best told in Harry P. Warner's <u>Radio and Television Rights</u> (1953). The book recommended by Mr. M. H. Shapiro of Broadcast Music, Incorporated, as the best narrative account of ASCAP and BMI is Hazel Meyer's <u>The Gold in Tin Pan Alley</u> (1958). There also is an interesting chapter on the founding of ASCAP in <u>From Ragtime to Swingtime</u> (1939) by Isadore Witmark and Isaac Goldberg.

Chapter XIII

Gleason L. Archer's <u>Big Business and Radio</u> (1939) is the most complete account of the struggle between the telephone and radio groups. This book contains copies from RCA files of much of the correspondence, office memos, and contracts relating to the controversy between the two groups. Banning and Coon, previously mentioned, should be consulted for the AT&T side of the affair.

Chapter XIV

The attempts made in the Twenties to pass radio legislation can be followed in standard histories already cited. In addition, reference to the <u>Congressional Record</u> for the years 1921-1927 will give a chronology of the radio bills introduced into Congress.

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More interpretive books on the role of government in broadcasting can be found in Walter B. Emery's <u>Broadcasting</u> <u>and Government</u> (1961), Zechariah Chafee, Jr.'s <u>Government</u> <u>and Mass Communications</u>, and Frederick Siebert's, <u>et al</u>. <u>Four Theories of the Press</u>.



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