

# A HISTORY OF THE KELLOGG SWITCHBOARD & SUPPLY COMPANY

## Chicago, Illinois



Compiled from articles by David Massey, Jay Neale and Roger Conklin, along with other research information by Mike Neale. (Revised 5/2006)

In 1870, Milo G. Kellogg a recent graduate of the University of Rochester, moved to Chicago and joined the firm of Gray & Barton. In 1872, Gray & Barton became the Western Electric Manufacturing Company. In 1882, the word manufacturing was dropped from the title of the corporation. During the period 1872 to 1889, when he withdrew from Western Electric, Mr. Kellogg was for a good portion of the time, superintendent of all details in the manufacturing department.

After his withdrawal from Western Electric in 1889, Mr. Kellogg devoted several years to travel but still giving much time and study to telephone development. His inventions were numerous with about 150 becoming a large part of the assets of the Kellogg Switchboard and Supply Company which he founded in 1897, where he, among other things, developed a standard model multiple switchboard that enabled 9,600 lines to be hooked up, with a capacity for 24,000 lines.

Mr. Kellogg became president of the corporation and retained that position until his death in 1909. The Kellogg Company was the first to supply the Independents with multiple switchboards and was first to introduce the full lamp signal board. It was regarded as one of the bulwarks of the Independents in the manufacturing end of the business, and with the exception of one incident, remained steadfastly in the independent division. It is interesting to note that in 1899, Mr. Kellogg was granted 125 telephone patents in a single day. The company prospered as one of the pioneers in the mass production of telecommunications equipment.

# KELLOGG

USE — is the Test

To better understand the events of Kellogg's history in the early 1900's, it should be noted that Bell's basic patents ran out in 1893 and 1894, thus permitting great expansion of independent manufacturers and operating companies with these patent restrictions removed. The loss of these basic patent rights notwithstanding, the American Bell Telephone Company continued its fight to obtain full monopoly of the telephone industry through infringement suits and even going so far as to attempt to change U. S. patent laws to provide perpetual rights.

This latter was defeated mainly through the efforts of Milo G. Kellogg and his attorney, Charles H. Aldrich.

The American Bell Telephone Company, having failed to obtain a change in the 11 U. S. patent laws, saw their hopes of monopoly fading and even more so as patent infringement cases were being lost daily in the courts through the legal efforts of the many independent manufacturers. (Western Electric had been wholly owned by Bell since 1882.) Bell then embarked on a program to secretly buy up the major independent manufacturers, thus ending resistance to patent suits.

Kellogg became ripe to Bell's aims<sup>1</sup> in 1901 when Mr. Kellogg, due to ill health, was forced to relinquish all business. He turned the company over to his brother-in-law, Wallace L. DeWolf, under a power of attorney and went to California, where, it was generally supposed, he would die. In June 1903, through a minority stockholders suit to set aside the sale, the industry found out the startling fact that Mr. DeWolf had sold Kellogg to the Bell Company and in fact it had been owned by Bell for some 18 months. Bell had bought the Kellogg stock from Mr. DeWolf under a pledge that the latter would keep the facts of the sale a secret and continue as the directing head of the concern. The object was simple. It was desired to load the independent operating companies with Kellogg apparatus. Some of the most vital parts of this apparatus were at that time in suit under claims of patent infringement brought by Bell and its manufacturing company, Western Electric. With Bell secretly in control of Kellogg, only mock defense would be made of these patent suits, judgment for Bell would be entered and the infringing apparatus could be seized thus forcing out of business scores of independent operating companies, with millions invested in plants and the Bell "trust" would come into being once more.

Buffalo and Los Angeles, the two largest independent operating companies were brought into the trap when Kellogg obtained the contract to supply their equipment. However, in the letting of the contracts, some whispering of the sale of Kellogg to Bell became prevalent. Mr. Kellogg, who, rather than dying, was recovering his health, heard these whisperings and confronted Mr. DeWolf, who admitted the facts. After Mr. Kellogg's efforts to buy back his stock, even at a great profit to Bell, failed, the minority stockholders were informed and a suit was filed to have the sale set aside. The lower court found for the plaintiffs, but the Appellate court reversed the decision. However, the Illinois Supreme court sustained the lower court and Bell was beaten. It was not, however, until 1909 that the final decision was rendered. In this same year, Milo G. Kellogg died and the presidency of Kellogg Switchboard and Supply Company passed to his son, Leroy D. Kellogg. Kellogg remained a completely independent company until 1951 when IT&T bought controlling interest.

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<sup>1</sup> See *When Western Electric Secretly Controlled Kellogg*, by Roger Conklin

Kellogg Switchboard and Supply Company entered the dial equipment field in 1939, with the introduction of Relaymatic, and came out with a Crossbar in 1950.

AND THEN CAME ITT



In 1920, Sosthenes Behn, owner of the Porto Rico Telephone Company and the Cuban Telephone Company, organized and incorporated the International Telephone and Telegraph Corporation (ITT).

In 1925 ITT then purchased International Western Electric from AT&T, which included all of Western Electric's subsidiary companies outside of the United States except for its interest in Northern Electric in Canada, it committed to not compete with Western Electric in the U.S. market. But this agreement did not cover items for the military. ITT owned Federal Telegraph Company, a minor operation that made radio-telegraph equipment for Postal Telegraph in a small factory in Newark, NJ that it acquired in 1928 when it purchased Mackay Radio, which controlled Postal Telegraph Company (then a competitor of Western Union Telegraph Co. but not a competitor of AT&T). These holdings consisted of 11 manufacturing companies, including the large Bell Telephone Manufacturing Company (BTM) in Antwerp, Belgium.

In 1940, when Europe was overrun by Nazi Germany, a group of engineers from BTM set up an engineering group at International Telephone and Radio Manufacturing Corporation Headquarters, (ITT) with the purpose of manufacturing telephone equipment in the US for ITT companies and customers in Europe, Asia, Africa, and Latin America.

ITT renamed Federal Telegraph Company Federal Telephone and Radio Corporation and signed several important radar-related development and manufacturing contracts with the U.S. Government just prior to the U.S. entry into the war. Its technical staff consisted primarily of these top refugee scientists from Europe. After the U.S. entered the war in December 1941, Federal Tel & Radio expanded its product line and began manufacturing its European-type telephones and Rotary switching equipment for its own telephone companies and other customers in Puerto Rico, Cuba, Spain, Brazil, Chile, Peru, Mexico, etc. These telephone companies had been effectively shut off from their sources of supply of equipment in Europe because of the German occupation of France and Belgium and the bombing of England. Some of these products were backward-engineered by Federal from equipment samples but without complete drawings which it had been unable to get out of Europe ahead of the invading German army. Circuit drawings for Rotary switching equipment were obtained from its

telephone company customers. In 1944, Step-by-Step production was started with drawings from the London, England plant.

Federal, during this time, (late 1940) moved from Newark and established a new manufacturing plant in Clifton, NJ. Federal Telephone and Radio Laboratories, set up in nearby Nutley, NJ was established to develop and design products for FTR somewhat like Bell Laboratories designed products for Western Electric. During the war the primary efforts of both FTR and FTL were directed towards the war effort.

The name of the company was changed from BTM to Federal Telephone and Radio Corporation (FTR), and in 1946, a new facility was built in Clifton, New Jersey.



On August 9, 1951 ITT began buying Kellogg stock, eventually acquiring the company. In 1952 the Kellogg Switchboard and Supply Company became a division of ITT. In 1957, the FTR telephone division was separated from the radio division and put under control of Kellogg management. In 1959, the entire operation was moved to Chicago Illinois. In 1961, the Step production was moved to Milan Tennessee, followed in 1962 by the rest of the Chicago manufacturing function. Several years after the buyout, ITT changed the name from Kellogg Switchboard & Supply Co. to ITT Kellogg. The FTR telephone manufacturing division in Clifton, NJ was combined with the ITT Kellogg manufacturing operations into ITT Kellogg's Cicero Ave. facility in Chicago. In 1965, the name Kellogg was dropped from the company name and it became ITT TELECOMMUNICATIONS, a division of International Telephone and Telegraph Corporation.



During the 80's the Corinth facility was part of a joint venture agreement between ITT Corporation and CGE, transferring the majority of ownership to the newly-formed Alcatel, N.V., the world's largest telecommunications manufacturer.

Shortly after this merger, a new vision was set forth with a new company name Cortelco, an acronym for Corinth Telecommunications Corporation. In July 1990, Alcatel sold Cortelco to an entrepreneur, former ITT executive David S. Lee. Cortelco reorganized and continued with the quality and innovation that the founding company began over 100 years before.



Initially after purchasing this business from Alcatel, this new company was known as Cortelco Kellogg. It continues to manufacture and market what had formerly been ITT's U.S.-made telephones and related products. The name "Kellogg" has since been dropped from its name and the company is now known as Cortelco. For a short while Cortelco continued to use the ITT name and trademark on its products under a license from ITT, but this also has been discontinued.

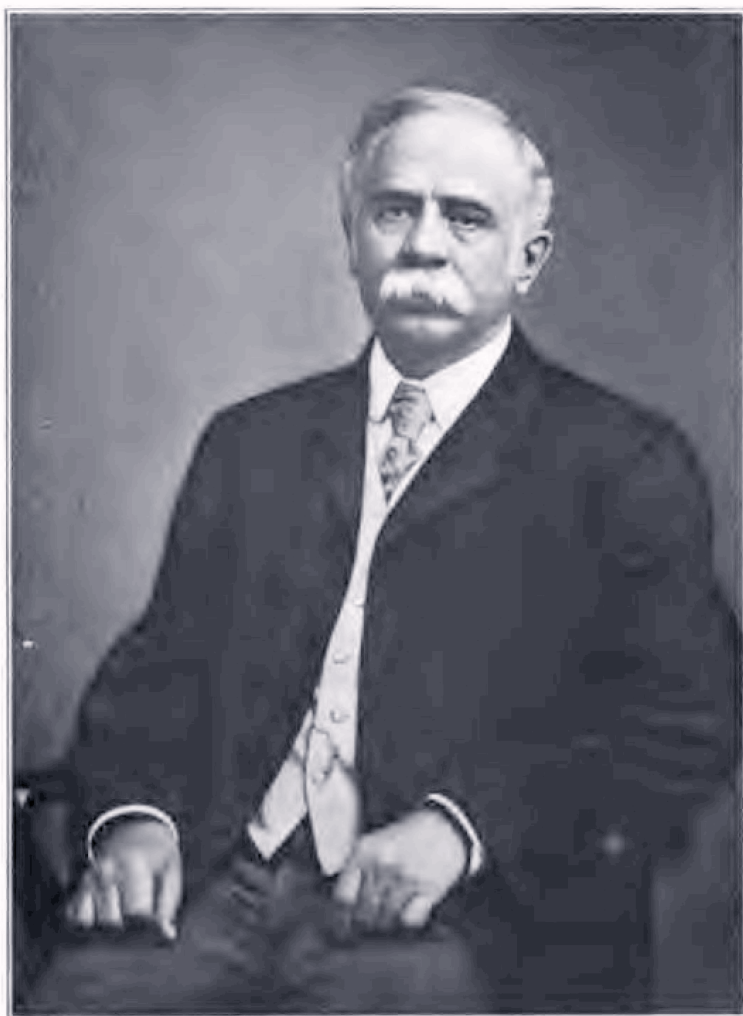
Note: All trademarks are the property of their respective owners.



As one follows down the line of the inventors whose labors have given America preeminence in the field of commerce as the result of devices for saving time and labor, he reaches in the later period of invention the name of Milo Gifford Kellogg—a name largely synonymous with the telephonic history of the country. He was of the ninth generation of Kelloggs born in the United States and was a son of James Gregg and Sarah Jane (Gifford) Kellogg. The branch of the Kellogg family came from Great Leighs, England, and mention of them is found in the records of Farmington, Connecticut, as early as 1651. The Giffords came from Barnstable county, Massachusetts, and also date back to colonial days.

Milo Gifford Kellogg, born in Rodman, New York, April 14, 1849, attended the preparatory school at Fulton and continued his studies in the Hungerford Collegiate Institute at Adams, New York. In 1870 he was graduated from the University of Rochester, New York, which institution conferred upon him the degrees of A. B. and A. M. He was an Alpha Delta Phi of Rochester, and was one of three chosen by the society to inaugurate the fraternity chapter at Cornell University.

Following his graduation Mr. Kellogg came to Chicago and entered into business with the firm of Gray & Barton, manufacturers of electrical apparatus, and saw the development of telephony and electrical illumination from their infancy. The Chicago Engineer in this connection once wrote: "Fancy this energetic trio of ambitious young men—Gray and Barton and Kellogg—all experimenting with electricity and making salable apparatus. Elisha Gray—Enos M. Barton—Milo Gifford Kellogg—makers of telephone history!" The firm of Gray & Barton in 1872 became the Western Electric Manufacturing Company and prospered for the ten following years, when, in 1882, the word manufacturing was dropped from the title. During all of these years and until 1885 Mr. Kellogg remained with the concern and from 1875 was superintendent of the manufacturing department of the Western Electric Company.



MILO G. KELLOGG

In the following year Mr. Kellogg became president of the Great Southern Telephone & Telegraph Company, so continuing until 1888. He was also one of the organizers and principal stockholders of the Central Union Telephone Company of Chicago and was a director in that company from 1893 until 1898. In the meantime he traveled extensively, spending two years of the period in Europe. He studied the possibilities of telephone development, becoming identified with the operation of telephone plants and concentrating his energy on inventions. During this period he became a fountain head of economical ideas, all pertaining to telephone work. He brought out numerous inventions and about one hundred and fifty of his patents formed part of the assets of the new company which he organized in 1897. It was in that year that he organized the Kellogg Switchboard & Supply Company, of which he became president, a position he held at the time of his death. This company was the first to supply independent operating companies with multiple switchboards and was also the first to introduce the full-lampsignal switchboard to independent operators. It was in 1897 that the Kellogg Company built the first independent multiple switchboard for the Kinlock Company of St. Louis which was the first large city in the United States to successfully break away from the Bell monopoly. We quote again from the Engineer which said: "Milo Gifford Kellogg blazed the way for the independent telephone manufacturer. It was through his personal efforts in 1892 that President Benjamin Harrison considered the claims of independent manufacturers with reference to the Berliner transmitter patents. The government's case to annul the validity of Berliner's claim was not successful, but it established the weaknesses which made the subsequent trials a success. The contribution of largeness to the cause of competitive telephony lies at the door of M. G. Kellogg, the man. The Kellogg manufacturing organization constitutes the best engineering and sales talent that is to be had. Little could have been added in men, plans or execution to secure greater success. Mr. Kellogg always addressed himself in earnest to the work before him. He surrounded himself with workers of like kind. The integrity and efficiency of the manufactured apparatus resulting from such organization has never been assailed."

Mr. Kellogg devoted his time and energies to the advancement of telephone and electrical apparatus and during the last five years of his life maintained a separate organization for experimental work, largely concentrating his efforts and energies upon automatic telephone operating and manufacturing.

On the 11th of March, 1873, Mr. Kellogg was united in marriage to Mary Frances, a daughter of Calvin and Frances (Kimball) De Wolf, both of whom were early settlers of Chicago, her father arriving in 1837 and her mother in 1840. They were married in this city by the Rev. Hooper Crews one of the early pastors of the Clark street Methodist church, on the 9th of June, 1841. Extended mention of them is made on another page of this volume. To Mr. and Mrs. Kellogg were born three children, Anna Pearl, Leroy De Wolf and James Gifford. Both sons are connected with the Kellogg Switchboard & Supply Company and the former was married in July, 1901, to Ellen Neel and they have three children, namely: Frances De Wolf, Venie Louise and Leroy Gifford.

Milo G. Kellogg passed away September 26, 1909. His family and friends were all the society he cared for and to them he was most loyal and devoted. He attended the Kenwood Evangelical church and was always interested in its benevolent work. He had a firm belief in republican principles, although he at times found occasion to vote independently of the party ticket. He was a liberal supporter of the Municipal Voters' League, a life member of the Chicago Athletic Association and also a member of the Union League and Kenwood Clubs. He remains in the memory of his friends enshrined in a halo of a gracious presence and kindly spirit, and to the world he will ever be known as one whose efforts were foremost in the development of telephony, not only through invention and manufacture but also in the establishment of an independent system that broke the power of a monopoly.