

The History of

THE NATIONAL ELECTRIC SUPPLY CO.

(now Vitro Electronics)

by

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Manufacturers of electrical devices and wireless equipment, for commercial and communication use and for the U. S. Government Armed Forces from 1909 up to the present time.

In preparing a history of this old Washington, D. C. firm the very age as noted above presented two problems: First the company goes back beyond the memory of any living member of the firm.

Second, few people are vain enough to keep records of their business in the belief that someday others will want to use them in history. Few people when starting a business, view their work as the founding of an institution. Consequently records are often lost or destroyed. We have, however, been able to collect enough facts and information from some of the older employees and from the few surviving records to piece together a fairly complete record of the company's development. Old ledgers now in the company's archives show that a Mr. Fred Royce who incidentally was at one time an expert telegrapher for the War Department during the Civil War, joined with a Mr. Marean and established a machine shop in old Georgetown, D.C. on Water Street in 1880. Indications are that Mr. Marean also worked in the Government with Mr. Royce but had some business background, and this company then as ROYCE and MAREAN specialized in brass and copper work, tug boat engine repair and made shafts and propellers for small craft, and manufactured "electrical de-

vices." In 1899 this company apparently moved to larger quarters at 1408 Pennsylvania Avenue, N. W. in Washington and was active in both manufacture and sales, and also about this time organized the NATIONAL ELECTRICAL SUPPLY COMPANY. Few people were employed in constructing and installing electric doorbells (then quite a novelty) and electric gas lighters. In this period the chief source of interior lighting was gas jets. In churches and assembly halls where these gas jets had to be installed in high places to throw light over the whole room, lighting these jets was quite a chore as it required the use of ladders or long poles. The electric gas lighter which this company installed was a device for sparking these jets. Numerous buildings and churches in Washington were serviced by this device, however an old ledger shows that the largest volume of business was probably in merchandising and much of this electrical sales business was with the U. S. Government with the company acting as the local and government sales agents for companies such as Western Electric. Be-

fore and during the Spanish American War the company supplied the army with telegraph instruments.

With the event of the electrical lighting installations this company began the merchandising of electrical supplies and were distributors for all the well known manufacturers of wiring supplies and electrical appliances.

In the early nineteen hundreds, the U. S. Government, both the Navy Department and the Signal Corps of the Army called on NESCO for many special pieces of electrical equipment and with the event of wireless, some of the very first transmitting and receiving instruments were built under contract for the Government. Between 1909 and the beginning of World War I, this company had built many of the instruments used by the Navy, the War Department and Bureau of Standards such as wave meters, long wave receivers and small portable transmitters. When the war broke out in Europe our military and Naval leaders had to face the need for substantial quantities of radio equipment. Of necessity this had to be based upon the somewhat meager experimental developments which had taken place up to that time and as this company had contributed to these developments through their experience it was evident that the quantity of military equipment needed was far in excess of what could be produced in their present factory. They opened a shop and moved the merchandising departments to 1330 New York Avenue, N. W. and the company was then able to accept prime contracts and subcontract to a number of other firms. The company was particularly noted for producing mobile radio equipment ranging from pack sets carried on mule back to complete transportation transmitting and receiving stations, including supplying probably the first electrical generator ever put on a Naval aircraft and some of the first radio equipment used on a submarine. Many of the Long Wave receivers for Naval Stations both shore and ship built by NESCO can still be found in pretty good condition in Museums and Private collections throughout the U. S. From 1915 thru 1918 most of this receiving equipment was designed for use with Crystal Detectors and some had provisions for connecting regenerating detectors using vacuum tubes and Audion Control Boxes providing some degree of amplification.

In 1917 one of the many contributions to the war effort was the manufacture of hun-

dreds of a series of small compact receivers for use on Sub-chasers under the Model number of CN-113, CN-113A and so on. These were with and without detectors, with provisions for vacuum tube operation and were so designed that they could be used in landing party pack sets, aircraft installation and even observation balloons and outposts where a light and portable battery operated receiver was needed. NESCO was also doing special experimental model work for Major Squire of the Signal Corps and Dr. Frederick A. Kolster and many of the first Kolster Decimeters were turned out at NESCO. In fact the instrument practically was born in the testing laboratory and assembly shops of the company.

Naturally NESCO could not bear the burden alone in building equipment necessary to supply the government agencies and many of the other companies experienced in this type of material had to contract for many of the same designs and instruments in use at the time. After the war as there was little alternating current used in downtown Washington. NESCO had a major part in converting many Hotels, Theaters and public buildings from D. C. to A. C. and one of the larger jobs was converting the D. C. to A. C. in the Veteran's Building and this job involved changing over 1,000 electric motors, and one of the largest change-overs in the District. They also converted the Metropolitan and National Theaters, the Munsey Trust Company building and the Roosevelt Hotel and many others.

In the early thirties NESCO was distributor for such firms as RCA Victor, The National Company, Hammerlund and many of the amateur radio and commercial equipment manufacturers, besides supplying commercial communication equipment to the government and the industry.

(The National Electrical Supply Company's store at 1330 New York Avenue in Washington was a haven for both commercial and amateur operators and enthusiasts during the early days of radio when do it yourself projects were the order of the day and few complete radio receivers and transmitters were on the market — most of the sales force behind the counter were ham operators or ex-commercial men and a good many in the shop in the rear of the building were specialists in the field.)

In 1937 the merchandising business of NESCO was sold out to the General Electric Supply Company a subsidiary of General

Electric and the assets in the shop and factory were taken over by a few employees and several investors who founded National Electrical Machine Shops Inc. This company was chartered as a corporation in the District of Columbia in March, 1937, and moved the shop to a location at Fifth and V Streets, E. Washington.

During World War II the National Electrical Machine Shops, now divorced from the merchandising work of the store continued to do business with the Government and various branches of the armed forces and business expanded many fold as the entire facilities were devoted to this effort. For three years straight NEMS won the coveted Navy "E" for excellence of performance and the company grew considerably in machinery and employees, but not in space during these war years. At the end of the war it was quite apparent that NEMS needed more room to grow and in 1945 the company selected the present site in Silver Spring, Maryland. The first floor of the plant was finished for occupancy in March of 1946, and the company moved into its new home in April of that year to begin another era in its history.

Immediately after the War, Mr. Allan Clarke, 3AEV, who had been in the broadcasting field in Danville, Virginia formed, with some associates, the Clarke Instrument Company to develop and market instruments for science and industry. The first items developed by this company were a series of Field Intensity Meters for AM-FM and telemetering bands and he gave the job to NEMS to build them, and as Clarke had known the principals of the National Electrical Machine Shops for some time he made arrangements to occupy some 5550 feet of floor space in the new quarters. The Field Intensity Meters were followed by the development of Phase Monitors, Telemetering Receivers and TV rebroadcasting receivers and accessories.

The company continued to grow with a reasonable degree of success, but when the Korean War started it became increasingly evident to Mr. Clarke and the management of NEMS that the two companies complimented each other and that a merger would be beneficial to both parties. This Merger was effected on January 1, 1951, NEMS, or what had been known as The National Electrical Machine Shops Inc., became NEMS-CLARKE Company, Inc., with the quarters

occupied by the Clarke Instrument Company, becoming the developing and engineering laboratories of NEMS-CLARKE, Mr. Clarke became Vice President in charge of engineering.

The Korean conflict put such a stress on the production facilities that more space was necessary to continue with the still increasing demands for the specialized electronic equipment that a second floor was added to the Silver Spring building and another building in the rear acquired in 1952. This operation was performed and completed without interruption to production and while working two shifts and employment reached an all-time high of over five hundred.

In 1954 after contributing greatly to the success of the firm during its founding years, Mr. E. M. Nevils, Jr. the first president died, and was immediately succeeded by Mr. A. S. Clarke, and in late 1954 the stockholders approved a change in the corporate name to NEMS-CLARKE Company, Inc. The original name, National Electrical Machine Shops, Inc., no longer adequately covered the broadened scope of the operations.

Besides the Government Contracts, sub-contracts with various firms such as RCA, Bendix and others, many new proprietary products were added, including a series of special-purpose receivers for telemetering, TV Color Rebroadcasting receivers and professional electronic flash equipment, and other special light sources for medical research and photomicrography.

Again in 1957 another important change was made in the NEMS-CLARKE organization as it became an operating division of Vitro Corporation of America. Since 1955 this company has undergone a transition from predominantly contract manufacturing to engineering development and the manufacture of these developments. In 1960, the Company was officially designated Vitro Electronics Division of Vitro Corporation of America.

Chronology

Royce and Marean, Organized 1890
National Electrical Supply Company, Inc., Organized 1899
National Electrical Machine Shops, Inc., Organized 1937
NEMS-CLARKE COMPANY, Inc., organized 1954
VITRO ELECTRONICS, Organized 1960

Meet the Author



Ed Duvall, ex-3DW, A.W.A. Historian, is currently inactive on the air but is nonetheless one of the most active amateur historians in the business. One-time A.R.R.L. official and leader in amateur activities, he now devotes his time to correlating amateur and commercial historical data, this article on NESCO being his latest.

Ed worked for NESCO (now VITRO Electronics) for many years. During WWI, he was associated with the Naval Research Lab, where he saw the development of wireless reach an all-time high.

This article is presented to our amateur historians to give them a factual background on NESCO and its equipment. Two choice items the collector will immediately recognize, one the CN-113 (one is in the A.W.A. Museum) and the CN-239 (see photograph above). Another piece of NESCO gear was a Wavemeter made during WW I. W2ICE found one for \$3 in the basement of a store on radio "row" (Cortlandt St.!) a few years ago.

Our thanks to VITRO Electronics for permission to reprint Ed's "history" as it appeared in the Vitro Communicator.