

A HISTORY OF THE NATIONAL ELECTRICAL SUPPLY CO.

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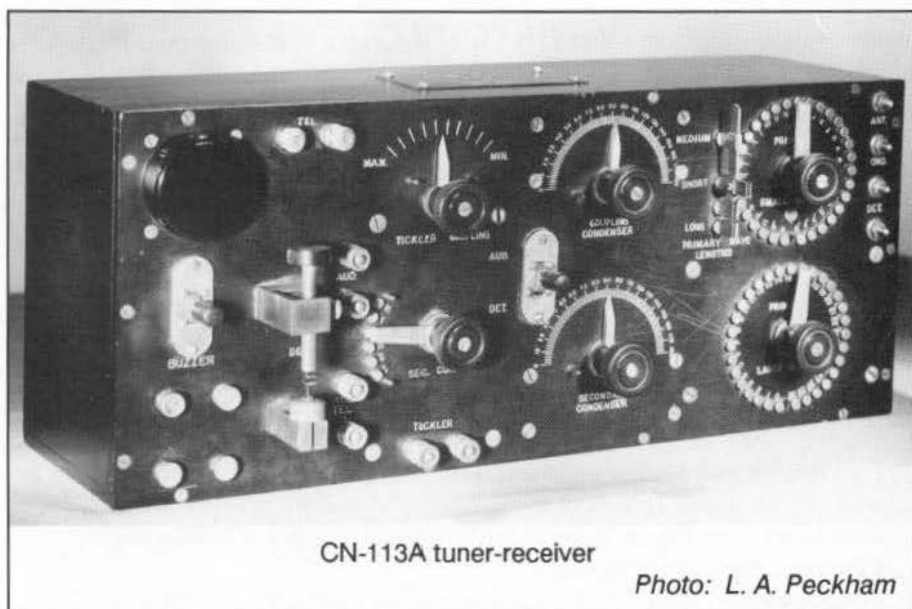
In preparing a history of this old Washington, D.C., firm, its very age presented two problems. First, the company goes back beyond the memory of any living member of the organization. Second, few people are vain enough to keep records of their businesses in the belief that someday others will want to 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 information from some of the older employees and from the surviving records to piece together a fairly complete record of the company's development.

Old ledgers in the company's archives show that a Mr. Fred Royce, who incidentally was an expert telegrapher for the War Department during the Civil War, joined with a Mr. Marean and established a machine shop on Water Street in old Georgetown, D. C., in 1880. Indications are that Mr. Marean also worked in the Government with Mr. Royce but had some business background. This company, then as Royce and Marean, specialized in brass and copper work, performed tugboat-engine repair, made shafts and propellers for small craft, and manufactured "electrical devices." By 1895 this company had moved to larger quarters at 1408 Pennsylvania Avenue, NW, in Washington. Active in both manufacture and sales, about this time it also organized the National Electrical Supply Company.

A few people were employed in constructing and installing electric doorbells (then quite a novelty) and lighters for gas illuminating fixtures. In this period the chief source of interior lighting was gas jets. In churches and assembly halls where the jets had to be installed in high places to throw light over the whole room, lighting them 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 served by this device. However, an old ledger shows that the largest volume of business was probably in merchandising. Much of this electrical sales business was with the U. S. government, with the company acting as the local and government sales agents for such companies as Western Electric. Before and during the Spanish-American War, the company supplied the Army with telegraph instruments.

With the advent of 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 1900s, the U. S. government, both the Navy Department and the Signal Corps of the Army, called on NESCO for special pieces of electrical equipment. With the advent 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 built many of the instruments used by the Army, the Navy, and the 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 relatively meager experimental developments which had taken place up to that time.

As this company had the experience of contributing to these developments, it was evident that the quantity of military equipment needed was far in excess of what could be produced in its existing factory. It opened a shop and moved the merchandising department to 1330 New York Avenue, NW. 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 transportable transmitting and receiving stations. This included 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 built by NESCO for naval stations, both ship and shore, can still be found in pretty good condition throughout the U. S. From 1915 through 1918 most of this receiving equipment was designed for use with crystal detectors. Some had provisions for connecting regenerative 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 hundreds of a series of compact receivers for use on sub-chasers under the model numbers CN-113 and CN-113A. 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 installations, 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 General Squier of the Signal Corps and Dr. Frederick A. Kolster. Many of the first Kolster decimeters were turned out at NESCO. In fact, this instrument was practically born in the testing laboratory and assembly shops of the company.

Naturally, NESCO could not bear the burden of building equipment to supply the government agencies by itself. 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 the electric system in downtown Washington had originally used mainly direct current, NESCO had a major part in converting hotels, theaters and public buildings from DC to AC. One of the larger jobs was converting the Veterans' Building. This task, one of the largest change-overs in the District of Columbia, involved replacing over 1000 electric motors. NESCO converted the Metropolitan and National Theaters, the Munsey Trust Company building, the Roosevelt Hotel, and many others.

The NESCO store at 1330 New York Avenue was a haven for 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 or

transmitters were on the market. Most of the sales force behind the counter were amateur operators or ex-commercial men, and a good many in the shop in the rear of the building were specialists in the field.

In the early Thirties, NESCO was a distributor for RCA Victor, the National Company, Hammarlund, and other amateur radio and commercial equipment manufacturers, besides continuing to supply commercial communication equipment to government and industry.

In 1937 the merchandising business of NESCO was sold to the General Electric Supply Company, a subsidiary of GE. 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 to Fifth and V Streets, NE.

During World War II, the National Electrical Machine Shops, divorced from merchandising work, continued to do business with the government and various branches of the Armed Forces. 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. 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 room to grow, so in 1945 the company selected a site in Silver Spring, Maryland. The first floor of the plant was finished for occupancy in March of 1946. 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 S. Clarke, W3AEV, 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. (Old-time broadcast engineers will remember making proofs of performance on directional AM antennas with the Nems-Clarke 120D or WX-2D field-intensity meter, which was distributed by Gates Radio and RCA.) He gave the job to NEMS to build them, and as Clarke had known the principals of NEMS for some time, he made arrangements to occupy some 5550 square 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 conflict started, it became increasingly evident to Mr. Clarke and the management of NEMS that the two companies complemented each other and that a merger would be beneficial to both parties. This merger was effected on January 1, 1951. NEMS became Nems-Clarke Company, Inc., with the quarters formerly occupied by the Clarke Instrument Company becoming the development and engineering laboratories. Mr. Clarke became vice president in charge of engineering. Mr. E. M. Nevils, Jr. was the first president.

The Korean war put such a stress of the production facilities 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 two-shift production. Employment reached an all-time high of over 500.

In 1954, after contributing to the success of the firm during its founding years, Mr. Nevils died and was succeeded by Mr. Clarke.

Besides government contracts and subcontracts with such firms as RCA and Bendix, many new proprietary products were added, including a series of special-purpose receivers for telemetering, professional electronic flash equipment, color TV rebroadcasting receivers, and special light sources for medical research and microphotography.

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 had undergone a transition from predominantly contract manufacturing to engineering development and the manufacture of these developments. In 1960, the company was officially designated the Vitro Electronics Division of Vitro.

In the years since, numerous corporate reorganizations have occurred. A variety of spin-offs occurred, carrying with them parts of the Nems-Clarke product line. Telemetry receivers went to Defense Electronics, Inc. Surveillance receivers went to Communications-Electronics, Inc., which is now a part of Watkins-Johnson. The broadcast products, for example, the AM field-intensity meter, went to a firm started in 1968, Potomac Instruments of Silver Spring, Maryland. PI updated the design and added a line of other products. Vitro itself underwent acquisition by Penn Central Industries, and has recently become a subsidiary of Tracor, Inc.

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
Potomac Instruments, organized 1968, et al.

Edward B. Duvall

Ted Duvall, ex-3DW and -3EM, was an early ARRL official and leader in amateur activities. He later became of the most active early amateur historians.

He worked for NESCO for many years. During WW II, Ted was associated with the Naval Research Laboratory. In

later years he restored early radio gear and donated it to the U. S. Naval Museum. He died in 1975 at the age of 83.

The author is pictured with his CN-239 receiver.

