

# The Telephone in the Northern Virginia Area from the Beginning to World War II

*BY JIM FEARSON*

## Earliest Years

In April 1877, Bell's first permanent outdoor telephone wire was strung between Boston and Somerville, three miles distant.<sup>1</sup> In 1878, the development of an "exchange" opened with twenty-one subscribers in New Haven, Connecticut.<sup>2</sup> This exchange made possible switched calls between any number of telephones rather than only direct connection between two or three on a common wire. The use of switched calls, starting in 1878, required an "operator" to patch the calls thru via cords from one line jack to another. Boys were hired for this job, but proved too unruly so girls with lady-like manners soon replaced the "wild boys."<sup>3</sup>

When a call was placed, the calling party asked to be connected by name to the called party. The operators quickly learned to which switchboard jack each subscriber's line was connected. In 1879, an epidemic of measles in Lowell, Massachusetts, caused concern that Lowell's four operators might succumb and paralyze the telephone system that served more than 200 subscribers. So that substitute operators might be more easily trained, the use of numbers instead of names was begun. This major change in handling calls went into effect almost without notice.<sup>4</sup>

Bell licensed telephone service began in Baltimore, Maryland, in 1877, in Washington, D.C., in 1878, in Richmond, Virginia, in 1879, in the city of Alexandria, Virginia, in 1880-81, in Falls Church, Virginia, in 1888, and in Arlington (Rosslyn), Virginia, in 1898.

In 1878, a telephone line was installed in what is now the Tysons Corner area of Fairfax County. The line ran from John Shipman's home to William Tyson's and was connected to several other neighbors.<sup>5</sup>

In 1879, the first District of Columbia telephone directory was published. At the time, Rutherford B. Hayes was President and his number at the White House was 1. The Capitol Building was 2 (these two buildings, the White House and Capitol each had only a single telephone).<sup>6</sup>

Southern Bell Telephone and Telegraph Company opened the first telephone exchange in the city of Alexandria in October 1881 with five customers,

and by 1883 it counted eighty-three subscribers.<sup>7</sup> The growth of only seventy-eight telephones in two years gives some insight as to the need for a telephone during this period.

### **Expanding the Telephone Network in Northern Virginia**

Merton Elbridge Church (1858-1931) was the person who did more to expand the telephone network in Northern Virginia than anyone else of his day. Church, born in Vermont, moved to Fairfax in 1879, living first in Herndon and moving in 1887 to Falls Church.<sup>8</sup> As a young man Dr. Church was trained as a pharmacist and ran a drug store in Falls Church for twelve years.<sup>9</sup> He was partners with a Mr. Spofford in the Spofford and Church Drug Store. Church bought out Spofford in 1882.<sup>10</sup> Dr. T.M. Talbott, before Church arrived in Falls Church, constructed a telephone line from his house to the drug store, a distance of about one and a half miles, operating it with a set of original telephone instruments given him by Mr. Echert, one of the original patentees of a part of the Bell apparatus. Mr. Church began a small telephone company, whose first effort was to construct a line from Falls Church to Washington in 1888. From this humble beginning, he developed a network of telephone companies and exchanges in Falls Church, Vienna, Herndon, Fairfax, Leesburg, and Fauquier and Prince William Counties, as far as the Blue Ridge Mountains. Mr. Church was the chief stockholder, president, and general manager.<sup>11</sup>

The first switchboard in Arlington (Rosslyn) was placed in service in 1898 (it was owned and operated by the Falls Church Telephone Company).<sup>12</sup> This switchboard served fifty telephones and, at the turn of the century, was located in a room in a building at the Virginia end of the Aqueduct Bridge; the waiting room of the trolley line to Falls Church. Later it moved to the second floor of a building on Lee Highway across from the brewery.<sup>13</sup>

In 1897, the Northern Virginia Telephone and Telegraph Company was established and provided telephone service in Vienna (this company was purchased in 1901 by M.E. Church). H.A. Money ran the first Vienna exchange from his house at 131 Church Street NW.<sup>14</sup>

In July 1900 Southern Bell, which operated in many of the southern states including Virginia, made a sub-license contract with Mr. Church. His company was to adopt the Bell telephone instruments for use in his system. At this time, Mr. Church for-

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mally organized (incorporated) The Falls Church Telephone and Telegraph Company. (The Falls Church Telephone and Telegraph Company was incorporated under the laws of the State of Virginia; the charter was granted by the circuit court of Fairfax County on June 11, 1900.)<sup>15</sup> Eight years later he organized The Leesburg Telephone Company; this latter company grew to cover most of Loudoun and part of Fauquier Counties. Mr. Church was, for the life of both companies, the active manager.<sup>16</sup>

Sometime around the turn of the century telephone service (Fairfax Telephone Company) in the small community of what is now the center of the City of Fairfax was owned and managed by Walter T. Oliver, an attorney who lived and had his office in the Gunnell House directly across Chain Bridge Road from the County Court House (present 4023 Chain Bridge Road). When Mr. Oliver sold his exchange in 1905 to M.E. Church (who was buying all the small telephone exchanges to incorporate into the Falls Church Telephone and Telegraph Company System), it was with the stipulation that he (Oliver) would receive free telephone service for life. When Church later sold out to the Chesapeake and Potomac Telephone Company (C&P) they refused to honor the free service condition. Mr. Oliver's son Robert W. Oliver, who also became an attorney, later worked for a time in the legal department of C&P. He said it was great fun to threaten to write an opinion on behalf of C&P upholding his father's claim.<sup>17</sup> The younger Mr. Oliver remembers his father telling him that his father's secretary operated the switchboard, which was located in his office in the house in which he lived. It served about thirty subscribers.<sup>18</sup>

In 1900 there were fifty telephones in Arlington served by a switchboard in Rosslyn. The county courthouse was served by a single telephone on a party-line (in 1907 the courthouse was put on its own separate line).<sup>19</sup> Telephones in the northern part of Arlington were served by The Falls Church Telephone Company, whose switchboard was located in a frame house owned by M.E. Church on Broad Street near the intersection of present-day Lee Highway. In 1900, Alexandria had a three-position switchboard with three lines to Washington and served about 200 subscribers.<sup>20</sup>

## **The Spanish-American War**

In the spring of 1898, due to the Spanish-American War, a large military training center for more than 23,000 soldiers from sixteen states (The United States Army's Second Corps) opened on a 1,400 acre tract which was named Camp Alger, two miles west of Falls Church on the south side of present-day Lee Highway between National Memorial Park and Gallows Road. (This was the first military installation to affect telephone growth in Northern Virginia.) By August, there were fifteen and one half miles of telephone and telegraph

lines within this Camp Alger and nine additional miles between the camp and the War Department in Washington D.C.<sup>21</sup> The telephones within this camp apparently were placed and maintained by the Sixth Company, United States Volunteer Signal Corps, but used the existing lines erected by the Falls Church Telephone Company between that town and Washington D.C.<sup>22</sup> Camp Alger closed with the departure of the last troops on September 8, 1898, after a swift end of the Spanish conflict, coupled with an epidemic of typhoid among the troops quartered at Camp Alger.<sup>23</sup>

### The New Century

By the end of 1903, the popularity of the telephone had grown to the point that, according to The Chesapeake and Potomac Telephone Company directory published November 1, 1903,<sup>24</sup> there were almost 34,000 individual subscribers. The C&P telephone network at that time included the two major cities of Washington D.C. and Baltimore, Maryland, plus subscribers in the entire state of Maryland, excluding the eastern shore, the entire state of West Virginia; connection with points in Pennsylvania through The Pennsylvania Telephone Company; connection with Delaware through The Diamond State Telephone Company; connection with Virginia through Alexandria via The Southern Bell Telephone Company; and connection with Virginia suburban telephones through The Falls Church Telephone Company. This directory listed subscribers by state, by town or city, and had a classified section for Washington and Baltimore cities. The Alexandria subscribers were not listed (apparently, Southern Bell had their own directory), but all the subscribers of The Falls Church Telephone Company in Virginia were listed. These latter were listed alphabetically and a location given; a random sample of the listings as appeared in the 1903 directory:

#### Falls Church, Virginia

##### Falls Church Telephone and Telegraph Company

- 4..1 Ashton, Dr. S. T., Physician,  
Residence & Office ..... Ballston
- 48..1 Church, M. E.,  
Real Estate Office ..... Falls Church
- 9..3 Doubleday, Col C. W.,  
Residence "The Cedars" ..... near Rosslyn
- 34..3 High View Hotel, J. D. Harrison,  
Proprietor ..... Chain Bridge
- 39.1-1 Saegmuller, Geo. N.,  
"Reserve Hill Farm" ..... Alexandria County

While the telephone was still a curiosity to most people, and those who had one in their home were still in the minority, there was one subscriber in Washington DC, who had not one but two separate telephone lines in his house:

North . . 166 Bell, A. Graham, Residence  
North . . 185 Bell, A. Graham, Residence,  
1331 Connecticut Ave.

This 1903 directory had several pages of instructions for subscribers under the heading “General Notices” which detailed such things as “Instructions For Using The Telephone” (Hold lips close to the transmitter...speak in a distinct though moderate tone) to “Identification Of Employees” (they had a metal “Bell” badge).

### **Full Time Telephone Service**

Telephone service at the turn of the century was not 24 hours a day. The switchboards of The Falls Church Telephone and Telegraph Company (Falls Church and Rosslyn) were operational from 7 A.M. to 10 P.M. on weekdays and 9 A.M. to 5 P.M. on Sunday. Since most subscribers were on “party-lines” (several subscribers on the same wire) to talk with anyone other than their party-line required an operator to connect the call. Basically, telephone communication ceased when the switchboard closed for the day.

In a letter to all subscribers of The Falls Church Exchange dated April 15, 1901,<sup>25</sup> the President, M.E. Church, proposed to extend the coverage through the night by the use of a night operator who, after the regular hours of business—10 P.M.—would answer and connect calls, to be billed at the rate of ten cents per call to the calling party’s number.

It is not known exactly when the use of a night operator began, but in 1917, fifteen year old Bill Parrott, who lived in the Village of Falls Church, heard there was an opening for a night operator; he applied for and got the job. He reported for duty each evening shortly before 10 P.M., relieving the evening operator who lived in Dunn Loring and had to leave a few minutes before 10 to catch the last trolley for home that left the East Falls Church station at 10 P.M.

The switchboard was located in the rear of the bank building at the corner of Broad Street and Lee Highway. This frame building was once the Spofford and Church Drug Store, but had since been converted to house the Falls Church Bank.<sup>26</sup> As night operator, Bill Parrott’s duties were to handle any calls that came in during the night. Parrott said the switchboards served between three and four hundred subscribers and had five trunk lines to DC (any long distance calls would have to go through D.C., via an operator there designated the RX operator). Parrott would retire around 11 P.M. to a cot in a room adjoining the

switchboard room, and if any calls came in during the night, the night bell would sound and awaken him and he would handle the call.

Parrott worked as the night operator in Falls Church seven nights a week for two years. (He left during the war to work at the Department of Interior). As fate would have it, in 1927 Mr. Parrott went to work as an electrical engineer for C&P Telephone where he held positions of increasing responsibility until his retirement in 1962.<sup>27</sup>

## **End of Entrepreneur Era in Northern Virginia**

In June 1916, The Falls Church Telephone and Telegraph Company and the Leesburg Telephone Company, which by this time served all the territory in Northern Virginia north of Alexandria from the Potomac River to the Blue Ridge Mountains, were purchased from M.E. Church by the Chesapeake and Potomac Telephone Company of Virginia.<sup>28</sup> The Virginia operating company—The Southern Bell Telephone and Telegraph Company—was changed by charter amendment to The Chesapeake and Potomac Telephone Company of Virginia on October 8, 1912, and headquartered in Richmond.<sup>29</sup> The final Order and Certificate of Dissolution of The Falls Church Telephone and Telegraph Company was issued by the Virginia State Corporation Commission on December 29, 1917.<sup>30</sup>

One of the conditions of sale of The Falls Church Telephone Company to C&P Telephone imposed by Church was, “That his employees should be cared for in the best possible manner.”<sup>31</sup> In fact, by all accounts, Church was very well liked by his workers and the feeling was mutual. At the farewell reception Church gave for the employees of both telephone companies he presented each of the employees with a letter of appreciation and a substantial check, which he stated, “was not a gift but was more in the nature of a dividend upon the enterprise in which they had been mutually engaged.”<sup>32</sup>

A.J. Potter was both an employee and neighbor of M.E. Church; he lived in the same block, but on the other side of the street on West Broad Street. He began working for The Falls Church Telephone Company in 1914 installing telephones. His son remembers him saying that when he went to Herndon

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to work on a telephone line it was an all day job. Potter continued working for C&P after it bought The Falls Church Telephone Company and stayed with them until about 1919. His company truck at that time was a Model T Ford.<sup>33</sup> A paycheck issued on the Falls Church Bank, dated October 10, 1916, to A.J. Potter in the amount of eighty dollars is noted as September salary. It is signed by F.E. Parker, Supt FC Tel Co.<sup>34</sup> Perhaps the most unusual thing Mr. Potter did, because he thought so highly of his neighbor and employer, was to name his son after him: Merton E. Potter, known forever after as Mert.

Mert Potter, like his namesake and his father, also made telephone work a career choice, starting in 1936 and retiring 41 years later in 1977.<sup>35</sup>

## **World War I**

Prior to World War I, Alexandria had a population of 15,000; however, it was estimated an influx caused by the war added between 5,000 and 10,000 more. Telephone business increased to keep pace. Ten more operators were added to the Alexandria traffic force and twenty trunk lines to Washington provided facilities for the growing toll traffic. Alexandria was also a toll traffic center (long-distance) for Warrenton, Marshall, Manassas, Haymarket, Centerville, and other points in the counties of Virginia bordering on the Potomac.<sup>36</sup>

Camp Humphreys (present-day Fort Belvoir), south of Alexandria, was erected for training of U.S. Army engineering units. Much like the earlier Camp Alger near Falls Church during the Spanish-American War, Camp Humphreys grew from fields and woods to a full fledged Army camp virtually overnight; only this Army camp, unlike the earlier Camp Alger, had a dramatic and lasting effect on telephone usage. It housed as many as 40,000 men at a time. The telephone exchange was in the heart of the camp and was equipped with an eight-position switchboard.

During World War I, President Woodrow Wilson seized control of all telephone and telegraph systems in the United States, placing them under the supervision of Postmaster General A.S. Burlison. This, perhaps more than anything, served to emphasize the growing importance of, and the population's increased dependence on, the telephone. Government control ceased and ownership was returned to private owners on August 1, 1919, one year to the day from the proclamation announcing government control.<sup>37</sup>

## **Dial Tone from a Machine**

In 1919, the Bell System announced plans to begin the introduction of machine switching: dial telephones.<sup>38</sup> The first automatic dial system had been patented in 1891.<sup>39</sup> "Cost studies and development work . . . had been under-

way for some years; however until this time, either plans were not ready or material was unavailable to introduce machine switching in the Bell System's big-city exchanges."<sup>40</sup> The first dial switching office in Arlington was placed in service in Clarendon on December 3, 1938, replacing the old Walnut manual office. The equipment was housed in the just completed telephone building located at 1025 North Irving Street. The new equipment served approximately 6,400 of the more than 10,000 telephones in Arlington County.<sup>41</sup>

## Solving Problems

All during the development of the telephone, great advances in the technology were constantly being made—machine switching being the latest. Several other major steps are worth noting—the first metallic circuits. In the 1880s the telephone didn't work very well, and a new source of trouble appeared. During the decade of the '80s, there was a proliferation of electric-light systems and electric-trolley systems in all principal cities. The instant effect of these inventions on telephones was to cause, through electrical induction, so much static as to make communication next to impossible. The switching of a trolley car or sputtering of electric street lamps would create such static on the telephone circuit as to render it useless. The approach of a thunderstorm could be detected by increasing telephone static long before a cloud appeared. The trouble lay in the fact that all telephone connections were one-wire circuits, consisting of a single overhead line between the communicating telephones, with both telephones also connected to "ground," using the earth itself as a conductor to complete the circuit. The solution first proposed in 1881 was to replace the one-wire circuits with two-wire, or metallic circuits, insulated from earth, thus eliminating the ground and its strange emanations. That meant stringing twice as many wires to serve the same number of telephones and rebuilding every circuit in the system—time and expense.<sup>42</sup> During the 1890s, virtually the entire Bell plant was made over from single-wire to two-wire circuits, vastly reducing the problem of static.<sup>43</sup>

Another large improvement in telephone technology was the common-battery system. The system was patented in 1888 and gradually introduced into service over the succeeding years. This common-battery system made it possible for a central switchboard battery to supply current to all telephones connected with it, and it was no longer necessary for each individual telephone to have its own troublesome battery.<sup>44</sup> It was not until the early part of 1938 that all exchanges in Virginia had been converted to the common-battery system.<sup>45</sup> On September 4, 1936, the Vienna exchange was converted to a new common-battery switchboard. New quarters were established across the street from the old location at 103 Church Street NW and Nellie V. Hum-

mer, a former supervisor in the Clarendon exchange, was appointed agent and W. B. Follin was manager. At cut-over there were 240 telephones served by the Vienna exchange.<sup>46</sup> On May 4 of that same year an open house, attended by more than 100 people, was held to celebrate the conversion to common-battery equipment in Herndon.<sup>47</sup>

## **Telephone Growth in Arlington**

Arlington County's first telephone service was furnished by The Falls Church Telephone and Telegraph Company's switchboard in Rosslyn, which was placed in service in 1898. During the early days of this exchange there were only fifty telephones connected.

The increase in the number of people wanting telephones in Arlington in 1917 prompted C&P Telephone to begin searching for a location where there was room to grow. The following headline and story appeared in the local weekly paper:

### **Valuable Property Sold – Bernstein Building at Clarendon Bought by C&P Telephone Company**

The C&P Telephone Company has purchased the two-story brick building at Clarendon formerly occupied by Bernstein as a grocery store.

It is understood the building will be converted into a telephone exchange and general office building for the company. It is not known just when the company will take possession of it.

For years the company has occupied rooms in The Monitor Building in Rosslyn but in keeping with the policy of the company to own its own building, where better accommodations for the operative force and additional telephone boards can be installed to take care of the increase of business, the purchase was made after careful selection of sites in Rosslyn and Clarendon.<sup>48</sup>

A new more modern common-battery switchboard was opened in Clarendon on March 27, 1920, with 750 telephones connected to it; 350 of those telephones were in the outlying rural area. (At the opening of the new Clarendon central office, located at the circle where Irving Street intersects, the Rosslyn exchange was abandoned.) In 1925, just five years after the Clarendon office opened, it became necessary to establish an addition and install six additional sections of switchboards to handle the growth, and by 1928 additional sections of switchboards had been added and there were 2,950 telephones connected to the exchange at Clarendon. In 1928, a spokesman for

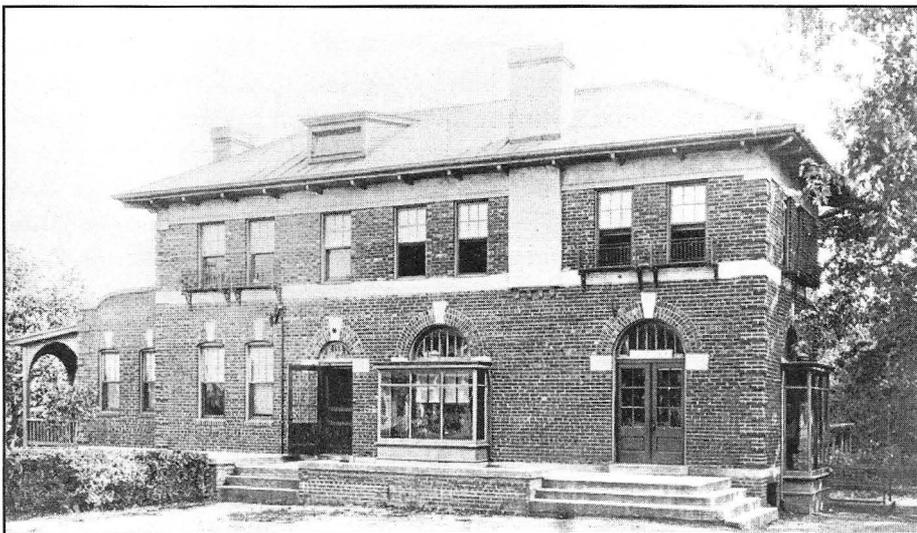
C&P Telephone stated, "During the past two years many aerial cable extensions have been made into various sections of the County, including Rosslyn, Cherrydale, Lyon Village, Lee Heights, Ballston, Thrifton Village, and Arlington Heights, which are among the populous communities served by the Clarendon telephone central office."<sup>49</sup>

A problem in the 1880s was the proliferation of telephone wires and telephone poles to carry them. As the use of the telephone grew, so did the wires on poles. In the larger cities of the northeast, heavy snow or ice would bring down these wires, and often the additional weight would break poles. It was not uncommon for large areas to be without telephone service for days until linemen replaced poles and restrung wire damaged by storm. In 1890, a dry-core cable sheathed in lead and having wires insulated with crumpled paper instead of wax, resin, or oil, as previously used, became the new technology, particularly for underground use.<sup>50</sup>

Arlington telephones, in the early days, were served by open (uninsulated) strands of wire strung at first singly on poles. Then as the numbers increased and metallic circuits (two-wire) doubled the wire needed, the use of cross-arms on poles came into use, which greatly increased the number of wires that could be carried on a pole line. The introduction of multi-conductor cable replaced the need for open wire and soon most new pole-lines were using lead sheathed cable, which in turn required cable-splicers to join together the miles of cable that were being placed.<sup>51</sup> The improvement of cable technology allowed the long distance networks to prosper.<sup>52</sup>

One of the early cable-splicers to work on the telephone cables in Arlington was Irving L. Ellis, who began his telephone career in Washington D.C. in 1924, as a fifteen year old cable-splicer's helper at twelve dollars a week. He soon transferred to Virginia, where he began splicing cables in Arlington and Falls Church. Splicers were on call for work all around the state, and in addition to Arlington, Ellis was sent, during the early 1930s, to Roanoke, Lynchburg, Orange, and Winchester to splice and repair cable. Ellis worked as a cable-splicer on most cable runs in Arlington until 1947, when he left the Telephone Company to go farm in Indiana.

He left a legacy—his son Irving K. (Kenny) Ellis began work for C&P Telephone as a sixteen year old frame-man in 1945 at the Arlington Central Office, and from 1948 to 1950 Kenny was a cable-splicer's helper reporting to Merton E. Potter, whose father, Arthur J. Potter, was an employee of the original Telephone Company in Northern Virginia owned by M.E. Church. During the younger Ellis's career, he worked in a line gang in Arlington, when there were still open-wire leads that required maintenance. This was during the 1950s when setting poles, placing and removing cross-arms and stringing open-wire circuits was a regular work op-



From the collection of Kathryn Fearson  
**Chesapeake and Potomac Telephone Company Building at the intersection of North Irving Street  
and Clarendon Circle, circa 1921.**

eration in Arlington. The majority of those open-wire runs were replaced by cable following the blizzard that tore down most of them in 1956.<sup>53</sup>

### **Hello Central!**

The first woman operator is said to be Emma E. Nutt, hired by the New England Bell Company in Boston in September 1878. Within a few years of her hiring, female operators had all but in a few instances replaced “boy” operators.<sup>54</sup>

The early rural operators, in the natural course of things, became an involuntary message center. According to a 1905 magazine article, some of the typical requests of Central were: “Ring me up in fifteen minutes so I won’t forget to take the cake out of the oven”; “I put the receiver of the phone in the baby’s cradle; if she wakes up and cries, ring me”; or “Central, ring me up a half hour before the 2:17 train.” In the popular literature of the day, she became a heroine, solving all sorts of crises from domestic to giving warning and sounding the alarm for fires and flood.<sup>55</sup>

In the early days of telephony, just the act of making a call was looked upon as an oddity. The next step, calling long distance, was again an unusual occurrence, even if the long distance was only to the next community. As the telephone network grew, particularly after 1912 when the repeater and loading coil were introduced, calling long distance, while for many still a major event, was becoming commonplace.

In our family, we regularly made long distance calls from our house in Clarendon, and later Cherrydale, to aunts that lived out of town, but in the late '30s and early '40s it was still an event. The upcoming call was discussed for several days, then all would gather by the telephone. When the operator came on the line, saying the magic words "Long distance please," began the chain of events that ended with a telephone being answered in Grafton, West Virginia or Sealston, Virginia, truly a miracle in my then young mind. Occasionally, the operator would tell us "Sorry, all circuits are busy, would you like me to try later?" The answer was always yes, and some time later in the evening the telephone would ring with our completed call.

In the switchboard room at the Clarendon Central Office, all long distance traffic would be routed through the city of Washington. The Clarendon operator would plug into a jack on the board, which terminated in a jack in the Washington switchboard, where the long distance operator who answered had access to the network. Once the destination town was announced, a rate and route guide was used to determine how the call was to route (which cities it had to go through) and what the charges would be (rate). If the route was complicated and had to be routed through several cities and if the operator(s) left the "talk" key open, the caller could hear the operators setting up the connections all the way to the far end.<sup>56</sup>

As time passed and expansion of telephone service continued, more resources were made available for investment, which led to greater technical improvement. The average amount of time required to establish a long distance connection was reduced from seven to three minutes between 1925 and 1929.<sup>57</sup>

By 1925, fourteen central offices served the Northern Virginia territory, which included the city of Alexandria and the counties of Arlington, Fairfax, Fauquier, and Prince William, which connected a total of 7,000 telephones. This compares with about 3,700 telephones in the same Northern Virginia area in 1919. The Alexandria central office served 2,675 telephones; next in size was the Clarendon central office, which served 1,800 telephones in that town and nearby suburbs.<sup>58</sup>

In 1932, switchboard additions in the Clarendon central office provided facilities for an additional 1,140 lines.<sup>59</sup>

At the beginning of 1936, there were 5,804 telephones connected to the switchboards at the Clarendon office (Clarendon and Walnut exchanges), but a rapidly developing area of the county was in the extreme southeastern section bounded on the south by the corporate boundary of the city of Alexandria (Arlington Ridge, Aurora Hills, Virginia Highlands). A new central office was constructed at 914 Twenty-Third Street, South, and equipped with a six-position switchboard to handle the increased growth. The exterior of the building was constructed along residential lines to conform with the character of the neigh-

borhood. Some 430 lines were transferred from the Clarendon central office and two new exchanges were established (Ridge and Jackson).<sup>60</sup>

In April 1937, Kathryn C. (Kitty) Fearson started to work in the Clarendon Central Office as an operator. Her pay was fourteen dollars a week (take home was thirteen dollars and eighty-six cents; Social Security deducted one cent for every dollar earned). She recalls that switchboards lined three walls of the upstairs board room, with a total of 34 individual switchboard positions. During her time in that building she worked the board handling rural lines (crank phones), two and four-party lines, coin phone lines, and long distance.

The operators during that period wore heavy headsets and chest mounted transmitters—very bulky and awkward—not much of an improvement over early day headsets. The switchboard positions multiplied; that is, every jack (line) appeared multiple times; the arrangement was such that in less busy periods fewer operators could handle the entire board. By reaching into the position on her left and on her right, she could answer calls coming into her position, plus half a position on either side of hers. The operator used two cords to handle each call. She answered the incoming call light with the back cord and connected that line to the appropriate jack with the front cord of the pair.

In the Clarendon office, private line, party, and rural line ringing was done manually by the operator, who determined by the letter following the number asked for which ring key to operate. The letters corresponded to a key (J-R-M-W) and when operated would ring the correct cycle—long, two short, etc. No letter indicated a private line. For example, Boyers' Drug Store in Clarendon was Clarendon 3, which by absence of a letter suffix indicated private line. The operator would operate the appropriate key for two seconds every ten seconds. Later dial offices employed automatic machine ringing. The telephone exchanges appearing at the Clarendon Central Office were Clarendon, Glebe, Ivy, Jackson, Oxford, and Walnut.

During her career, Fearson also worked as a traffic operator at switchboards located in 1025 North Irving (the first dial office in Arlington), 6700 Lee Highway, Falls Church, and 900 South Walter Reed Drive (information office), plus a stint during the Second World War in Washington D.C. training the hordes of secretaries and clerks that flooded wartime D.C. on the proper way to answer and talk on business telephones. She retired as Assistant Chief Operator in 1975.<sup>61</sup>

In 1938, dial telephone service came to Arlington, and a new telephone building was constructed at 1025 North Irving Street, just down the block from the Clarendon office, to house the dial equipment. The Walnut manual exchange was replaced by the new Chestnut dial exchange on December 3, 1938. Initially, the new dial office served approximately 6,400 of the more than 10,000

telephones in Arlington. The new two-story building also housed the business office and administrative offices.

Telephones in North Arlington were served by the Falls Church office.<sup>62</sup> When C&P Telephone Company purchased The Falls Church Telephone Company in 1916, there were between three and four hundred telephones served by that exchange. By the time dial telephone service was introduced in 1946, 6,294 telephones were working there. In addition to Falls Church, the Daleview, Axminster, and Kenmore exchanges were served from the new Falls Church dial office at 6700 Lee Highway.<sup>63</sup> In 1940 the City of Alexandria converted to dial service. A new building was constructed at 1316 Mount Vernon Avenue to handle the conversion to dial of the Alexandria and Temple exchanges.<sup>64</sup>

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At the outbreak of World War II, telecommunications were so crucial to the conduct of the war that Bell research, development, and manufacturing instantly became among the most vital of national resources. The domestic telephone network had to be slighted as to plant modernization. Yet at the same time, war brought on that network enormously increased demands.<sup>65</sup> AT&T, by 1944, was pleading with the public, asking civilians to refrain from calls to busy war centers, to limit all calls to five minutes, and to keep lines clear from 7 to 10 P.M.<sup>66</sup>

In 1941, a proposal was put forth to President Roosevelt that was to change forever the face of Arlington. The world's largest office building was envisioned on the site of the old Hoover Airport to house all of the War Department. The original plan was to construct a building that would house 40,000 employees (only 15,000 less than the total population of Arlington) on sixty-seven acres that was part of the original Arlington Estate.<sup>67</sup> After a series of meetings with the President, engineers, and members of Congress, the building site was moved north and west (the Hoover Airport site was in the flood plain) to the former Agriculture Experimental Station (Arlington Farms). The Pentagon was completed January 15, 1943, and was indeed the world's largest office building, containing 6.5 million square feet of office space. The final cost: eighty-three million dollars; the original estimate was thirty-five million dollars.<sup>68</sup>

In July 1942, Nelson (Nellie) Clayton was one of many young men hired by C&P Telephone to help wire and install telephones in the giant Pentagon. He was sent to a two-week training class and then joined approximately 150 telephone people working in the new building. His first boss at the Pentagon was Art Potter, another son of the Arthur Potter who installed telephones for M.E. Church in the early 1900s. Clayton recalls that construction of the building was done in sections; a part would be built and completed, then another section, etc. It was not possible to walk around any single ring of the building until it was totally completed. The local paper of the time reported that as many as 4000 workers were on-site on any given day. Clayton's starting salary was twenty dollars a week.<sup>69</sup>

While the Pentagon housed the world's largest office building, it also housed the world's largest telephone switchboard. When Western Electric Company finished their wiring there were 283 switchboard positions to handle calls to, from, and within the building. To operate this staggering number of switchboards, it took 300 operators and 22 traffic supervisors. C&P Telephone maintained the switchboards, but the operators worked for the War Department (Signal Corps).

In 1942, Marian Bailey started working for the War Department and soon was assigned to the switchboard training group for the Pentagon. She recalls reporting to work at the Pentagon while major construction was still underway. She began training new operators in March 1942, and the switchboards opened for official business in September 1942. All calls in and out and internal were manual—nothing was dial. She recalls initially 70 switchboards handled incoming and local inward calls, 36 switchboards handled information calls, and 55 switchboards handled toll calls.<sup>70</sup> Once put into service, the Pentagon switchboards never shut down; their operation was 24 hours a day, seven days a week. Marian Bailey, who started at the Pentagon in 1942, at the time of interview was the Chief Operator there.<sup>71</sup>

During World War II, the demand for new telephone installations rose to record highs. In 1942, the War Production Board issued orders restricting new telephone installations to essential situations. Then later that year they prohibited the manufacture of new telephone sets, except for military use. By the end of the war in 1945, for every ten people in the United States who had telephones, there was one waiting to get one.<sup>72</sup>

The explosion in telephone growth since World War II matches the growth in Arlington's population, making both unrecognizable when viewed from conditions as they were at the beginning of the twentieth century.

Telephones and Arlington County both have come a long way since the late 1880s.

## Epilogue

As each decade passes, the telephone industry seems to make a quantum leap in technology. First, the transistor, which opened up major new breakthroughs in transmission of sound. Coaxial cable, television, microwave radio, horn-reflector antennas, relay towers. Then the switching machinery became more and more sophisticated: step by step switch, panel switching, crossbar switching, electronic switching, miniaturization. Laser-beam transmission, satellites, fiber-optics. Computer switching, electronic switchboards—automation.

Legislation, anti-trust, break-up.

Once again, there is more than one telephone company in town. A subscriber can buy his dial tone from any number of companies, get long distance service from one of many other companies, has multiple choices for his cellular telephone. The pay telephone has almost disappeared. Calling long distance is as common as calling down the street; facsimile machines send multi-page documents across town or across the continent.

Perhaps the biggest change in how telephones are used is the wireless phone – small enough to carry in pocket or purse, they can be used anyplace, anytime. They are self-contained, needing neither wires, cables or poles. At present, more new subscribers are opting for wireless rather than land-line service.

“Number Please?” is no longer in the vocabulary. In fact, telephone numbers are becoming scarcer as people need one for each separate device. We have gone from calling by name to single digit numbers, to numbers and a letter, to multiple area code calling in the metropolitan area.

I wonder what Mr. M.E. Church would think?

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Jim Fearson is a native Arlingtonian who now resides in Oak Hill, Virginia. A local history buff, his family on both sides has been in Arlington since the early 1900s. His earlier contribution to *The Arlington Historical Magazine* was “Chain Bridge—A History of the Bridge and Its Surrounding Territory, 1608 – 1991” (October 1991).

He began working for the Chesapeake and Potomac Telephone Company as a teenager and, after a 38-year career in the telephone business, retired in 1989. His mother and son also made the phone company their life’s work.

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## Endnotes

- <sup>1</sup> John Brooks, *Telephone, The First Hundred Years* (New York: Harper & Row, 1975), p. 53.
- <sup>2</sup> *Ibid.*, p. 65.
- <sup>3</sup> *Ibid.*, p. 66.
- <sup>4</sup> Joseph H. Cromwell, *The C&P Story Service in Action, Virginia* (Chesapeake and Potomac Telephone Company of Virginia, 1981), p. 7.
- <sup>5</sup> Connie Pendleton Stuntz and Mayo Sturdevant Stuntz, *This was Tysons Corner, Virginia – Facts and Photos* (Vienna: privately printed, 1990), p. 33.
- <sup>6</sup> Patrick M. Reynolds. “Flashbacks: Number Please “ in *The Washington Post*, Sunday, May 3, 1992.
- <sup>7</sup> Cromwell, *C&P Story, Virginia*, p. 10.
- <sup>8</sup> Newspaper article, *The Washington Star*, September 16, 1931.
- <sup>9</sup> *Ibid.*
- <sup>10</sup> Untitled notes in M.E. Church collection, Virginia Room, Mary Riley Styles Library, Falls Church VA.
- <sup>11</sup> Newspaper article, *The Monitor*, Alexandria County, Rosslyn, VA, June 30, 1916.
- <sup>12</sup> Cromwell, *C&P Story, Virginia*, p. 80.
- <sup>13</sup> J.O. Martin, in *Arlington Historical Society Newsletter*, January 1961.
- <sup>14</sup> Connie Pendleton Stuntz and Mayo Sturdevant Stuntz, *This Was Vienna, Virginia, Facts and Photos* (Vienna: privately printed, 1987), p. 243.
- <sup>15</sup> M.E. Church collection, Falls Church Library.
- <sup>16</sup> Newspaper article, *The Monitor*, June 30, 1916.
- <sup>17</sup> Robert W. Oliver, “Notes on the Oliver House,” *Yearbook: The Historical Society of Fairfax, Virginia*, Vol. 23, 1991-1992 (Fairfax: The Historical Society of Fairfax, VA, 1992), p. 84.
- <sup>18</sup> Robert W. Oliver, Chevy Chase, MD, interview by author (telephone), January 28, 1993. Mr. Oliver is the son of Walter T. Oliver, former owner of the Fairfax Telephone Company. He was, at this interview, eighty-five years of age.
- <sup>19</sup> Nan and Ross Netherton, *Arlington County in Virginia: A Pictorial History* (Norfolk, VA: The Donning Company, 1989), p. 106.
- <sup>20</sup> Cromwell, *C&P Story, Virginia*, p. 18.
- <sup>21</sup> Noel Garraux Harrison, *City of Canvas: Camp Russell A. Alger and The Spanish-American War* (Fairfax: Falls Church Historical Commission & Fairfax County History Commission, 1988), p. 19.
- <sup>22</sup> *Ibid.*, p. 86.
- <sup>23</sup> *Ibid.*, p. 72.
- <sup>24</sup> *Telephone Directory of The Chesapeake and Potomac Telephone Company of Baltimore City* (Baltimore: C&P Telephone, November 1, 1903), from the private collection of Harry McLaughlin, Reedville, VA.
- <sup>25</sup> M.E. Church collection, Falls Church Library.
- <sup>26</sup> The Falls Church Bank was organized June 26, 1906 (*Northern Virginia Sun*, October 19, 1982). A mid-1920s picture shows a large stone bank building having replaced the original frame building.
- <sup>27</sup> William M. Parrott, McLean, VA, interview by author, April 9, 1992. Mr. Parrott grew up in the village of Falls Church, and is one of the few people who saw an industry mature almost from its inception. In 1914, he started tinkering with radio and in that same year built his first—a spark-gap radio that transmitted using Morse code. No radio license was required; all operators used their own initials as call letters. He left the night operator job after two years of working seven nights a week while attending high school. He went to work for the government (where he had an opportunity to meet Thomas Edison). During the war he moved to New York City to take a job. While there he finished high school at night and began going to Columbia University. (He finished and received his degree from George Washington University in Washington, DC). He moved to Miami, then to the Bahama Islands where he started an

electrical business. In 1927 he returned to Falls Church and went to work for C&P Telephone. One of his first jobs with C&P was installing and maintaining broadcast circuits for the telephone company's own broadcast station (the telephone companies in the early days owned their own radio broadcast stations). He installed circuits on the Ellipse for Charles Lindbergh to speak from during one of his visits. The circuits Parrott helped engineer were a public address system at the base of the Washington Monument to allow the crowds to hear President Coolidge's remarks when he decorated Colonel Lindbergh with the Distinguished Flying Cross in 1927. Parrott taught central office school. The technology of the day was dial-panel switching. He became a traffic engineer and worked on the telephone switching system in the Pentagon, and later in the CIA building in Langley. All through his years he maintained an interest in radio, and broadcast worldwide weekly from his own 300-watt station in his home. At the time of my interview with him, Mr. Parrott was in his ninetieth year and had just finished sharpening his chain saw; he cut his own wood to heat the house he himself built on the Virginia Palisades above McLean.

<sup>28</sup> Newspaper article, *The Monitor*, June 30, 1916.

<sup>29</sup> Cromwell, *C&P Story, Virginia*, p. 19.

<sup>30</sup> M.E. Church collection, Falls Church Library.

<sup>31</sup> Newspaper article, *The Monitor*, June 30, 1916.

<sup>32</sup> *Ibid.*

<sup>33</sup> Merton E. Potter, Ballston, VA, interview by author (telephone), April 29, 1992.

<sup>34</sup> M.E. Church collection, Falls Church Library.

<sup>35</sup> Potter interview. Merton E. Potter started his telephone career in October 1936 as a splicer's helper. At the time he began, there were only four or five cable-splacers working on troubles for the territory and it was standard practice to be sent out of town for extended periods to work. He was one of a group of eight splicers who worked for fourteen months splicing the telephone cables in the new Pentagon building. Mr. Potter was made splicing foreman in 1945 and worked in the Arlington, Alexandria, and Falls Church areas. He retired in 1977.

<sup>36</sup> Cromwell, *C&P Story, Virginia*, p. 39.

<sup>37</sup> *Ibid.*, p. 41.

<sup>38</sup> *Ibid.*

<sup>39</sup> Brooks, *Telephone*, p. 100. The first automatic dial system was patented by a Kansas City undertaker, Almon B. Strowager. Strowager, according to local legend, had been having trouble with the local telephone operators who, he was convinced, deliberately gave busy signals when potential customers called, thus depriving him of business. Accordingly, he resolved to invent a switchboard system that would eliminate the operator. He came up with a primitive system that could serve 99 telephones with a sort of windshield wiper operation switch—a forebear of the step-by-step system, the original dial-tone switchboard.

<sup>40</sup> Cromwell, *C&P Story, Virginia*, p. 41.

<sup>41</sup> *Ibid.*, p. 90.

<sup>42</sup> Brooks, *Telephone*, pp. 85-86.

<sup>43</sup> *Ibid.*, p. 105.

<sup>44</sup> *Ibid.*, p. 100.

<sup>45</sup> Cromwell, *C&P Story, Virginia*, p. 84.

<sup>46</sup> *Ibid.*, p. 85.

<sup>47</sup> *Ibid.*, p. 87.

<sup>48</sup> Newspaper article, *The Monitor*, September 27, 1917.

<sup>49</sup> *The Book of Arlington County Virginia – A Scientific Study of Industrial and Commercial Facilities and Conditions and Advantages of Living in Arlington County* (Washington, DC: The National Retail Institute, 1928), p. 26.

<sup>50</sup> Brooks, *Telephone*, p. 87.

<sup>51</sup> Donald Rounsley, Sterling, VA, interview by author, April 24, 1992. The art of splicing cable was one that took quite a while to learn and required an apprenticeship served under the direction of an experienced splicer.

<sup>52</sup> Brooks, *Telephone*, pp. 121, 139. In 1899, a patent was applied for a device that improved the tendency of a telephone signal to grow weaker the farther it traveled—the loading coil. The loading coil turned inductance, the old enemy of one-wire telephony, to advantage by harnessing it and reducing attenuation.

Before use of loading, underground cables would work for only a few miles. In 1912, the use of an improved vacuum tube as the basis for a device called a repeater, when coupled with a loading coil, was the break-through that allowed voice current to be carried for unlimited distances and was the basis for successful long-distance networks. On January 25, 1915, a connection was made between San Francisco, New York, and Jekyll Island, GA, where A. Graham Bell and Thomas Watson, his old collaborator, recreated their original, "Mr. Watson, come here, I want you" call, to which Watson in San Francisco replied, "It would take me a week to get there now!"

<sup>53</sup> Irving K. (Kenny) Ellis, Arlington, VA, interview by author, April 20, 1992. Mr. Ellis started his telephone career in June 1945 and retired in 1985.

<sup>54</sup> Brooks, *Telephone*, p. 66.

<sup>55</sup> *Ibid.*, p. 117.

<sup>56</sup> Kathryn (Kitty) Courtwright Fearson, Ballston, VA, interview by author, March 11, 1993.

<sup>57</sup> Brooks, *Telephone*, p. 179.

<sup>58</sup> Cromwell, *C&P Story, Virginia*, p. 53.

<sup>59</sup> *Ibid.*, p. 80

<sup>60</sup> Cromwell, *C&P Story, Virginia*, p. 53.

<sup>61</sup> Kathryn (Kitty) Courtwright Fearson, Ballston, VA, interview by author, May 10, 1992. Mrs. Fearson lived most of her life in Arlington since moving from Clifton in early childhood. She grew up in Clarendon (Garrison Road, later Washington Boulevard). She followed her three older sisters and brother into employment with C&P Telephone. As with many families of the time, telephone work was a family occupation. In addition to herself and her siblings, her son (the author) and grandson made the telephone company their life's work.

<sup>62</sup> Cromwell, *C&P Story, Virginia*, pp. 90-91.

<sup>63</sup> *Ibid.*, p. 113.

<sup>64</sup> *Ibid.*, pp. 99-100.

<sup>65</sup> Brooks, *Telephone*, p. 208.

<sup>66</sup> *Ibid.*, p. 213.

<sup>67</sup> Newspaper editorial, *Washington Evening Star*, Washington DC, July 25, 1941.

<sup>68</sup> Willard J. Webb, *Building the Pentagon in Arlington* (Arlington: Arlington Historical Society, 1984), p. 31.

<sup>69</sup> Nelson H. Clayton, Falls Church, VA, interview by author (telephone), April 1, 1993. Nelson (Nellie) Clayton began his telephone career as an installer at the Pentagon building. Following army service in World War II, he returned to the Pentagon, then worked in Washington DC, Clarendon, Falls Church, and Lewinsville as an installer and then a PBX installer. He was later made installation and PBX foreman. Mr. Clayton retired in 1982, forty years after he began his career.

<sup>70</sup> C&P Telephone Co. owned the switchboards which were built by Western Electric Co. to the War Department's specifications. C&P, in turn, leased the switchboards and the telephones to the government. The telephone company kept as many as six installation crews, along with several switchboard equipment crews, full-time at the Pentagon. The operators were employees of the government.

<sup>71</sup> Marian Bailey, Chief Operator, Pentagon, interview by author (telephone), April 1, 1993. Miss Bailey began her government switchboard operating career in 1942, moving to the Pentagon building in March 1942. She was appointed Chief Operator in 1958, a position she still held at the time of the interview. She was in her fifty-second year of employment, and in 1992 was recognized as the only person still working at the Pentagon who was there at its opening.

<sup>72</sup> Brooks, *Telephone*, p. 213.