

● TROUBLE RECORDER - WEST STREET CAMA TANDEM #4

Early in May of 1959, the Company put into service a new link in the nation-wide direct distance dialing program. This was the West Street Cama Tandem #4, which serves Manhattan from the Eighties down to Broad Street, such states as Connecticut, Pennsylvania, Illinois, Rhode Island and Virginia and locations in upstate New York. Needless to say this link handles toll traffic of a type that averages considerably more revenue per call than the local ten cent charge. The Company is, of course, interested in taking advantage of any advanced methods of maintaining such an office, as indeed all offices, more efficiently and thoroughly. The answer to the specific problem seemed to be the provision of the new trouble recorder for tandem which accordingly was ordered for installation in the new West Street unit.

Unfortunately, we found that the new equipment, although supposedly available, was not in production and that our new job had been shipped with the old style trouble indicator. Our insistence on a trouble recorder as ordered elicited the information that none could be supplied until after the cutover date. A trouble indicator office, we were further advised, could not be modified to use the new automatic equipment, as no standards had been prepared or were contemplated. The suggestion that the New York Telephone Engineering Department would undertake the job itself was broached and was met with some skepticism. It was felt, too, that even if we could do the engineering, the installer would not be able to install the necessary modifications in the position links.

After a number of conferences with Western Electric installation, the Bell Labs and interested New York Telephone personnel, it was decided that we could and would do the job.

A plan was devised that called for the modification of the position links before the actual cutover. Accordingly the Western Electric brought the frames into a clear space in the building and set up shop. Drawings of the new circuits were, meanwhile, shipped from Hawthorne to the equipment group which sat down and determined what new equipment was needed. The necessary material was ordered on a RUSH basis through the New York distributing house and shipped to the job. There the installation department had started stripping the frames preparatory to revamping the circuits from information supplied by the equipment group which was busily engaged in writing up detailed

change sheets and delivering them as soon as they were ready to the wiremen.

After cutover the second step of the plan was embarked upon with supreme confidence (and crossed fingers). This step called for the modification of all the major frames in the office and again was an undertaking with which the equipment group was charged. Specifications were prepared and the work was carried out without serious incident. (The office did not fold-up.)

The last step was the actual installation of the trouble recorder. The specifications for this portion of the work were prepared by the Hawthorne engineers and had to match all of the modifications which had been prepared by our group. They matched.

Now that it is all over, we have an office equipped with a device which automatically records the progress of service calls which have encountered trouble. In addition to this, it embodies a series of test circuits which check the office on a manual basis and also give an automatic record of the progress of the call. These records appear as punched holes in a record card measuring approximately 4 by 16 inches. The apparatus doing the punching is called a perforator and is capable of furnishing 30 complete records a minute, with as many as 1080 variable pieces of information peculiar to the establishment of any call. Such recording is obviously definitely superior to having a maintenance man copy an illuminated display, as was the case theretofore.

The whole job may have caused some gray hairs and some anxious moments, but it proves that through the cooperation of all groups (manufacturing, installation, plant and engineering) unusual jobs that have not been done before can be done. It proves that just because something has not been done before is no reason why it cannot be done now.

- G. E. Kernahan, Jr.
Manhattan Engineering

(Ed. Note - George's story, particularly his closing paragraph, carried us back to our youth and the Horatio Alger books - "Strive and Succeed", "Sink or Swim", "Do or Die", etc., etc., etc., - - - the books may be dated but evidently their teaching is still fresh. We were probably unsophisticated kids when we devoured the Alger series - and maybe that was not too bad.)

To be great is to be misunderstood.

-Ralph Waldo Emerson