



Charles J. Sentenne, Staff Representative, Marketing Department, A.T.&T. Co.

Since that March day in 1876 when Alexander Graham Bell's original transmitter first carried a spoken sentence, the history of the telephone has been a story of recurrent change and improvement. With technical improvements—audible but usually not visible—have come changes in the shape and size of the phone itself: changes that have made it more attractive, more convenient to use.

The latest of these to reach the customer is the Trimline* dial-in-handset phone, so-called because the dial, receiver and transmitter are all built into one small, graceful unit which is easily held in the hand. Created by Bell Laboratories with the collaboration of the famous industrial designer Henry Drevfuss, the new phone has a lighted dial which "comes to you" making for easy calling. especially from bed or an easy chair. It also has a "recall" button in the handset: this breaks the connection and enables the customer to make a series of calls without having to replace the phone on its base. Since the dial is in the handset, wall or desk models can be put in unusual but convenient places-beneath a cabinet or counter for example.

People in several areas of the Bell System are now enjoying the convenience of the Trimline phone, and in the next 18 months those throughout the rest of the System will have a chance to use it.

Actually, the idea of a dial-in-handset telephone has been evolving for some time. The basic principle has existed for many years in the test set used by Plant Department men. The road from the prototype to a compact set commercially feasible for general use has been long, however, and not always smooth. As far back as 1948 Bell Laboratories built a model—which remained only a model, because at that time simply meeting the demand for basic telephone service was the primary mission of the Bell System. About ten years later, engineers were asked to come up with a

Sculptured elegance of Trimline phone makes it appropriate for use anywhere.







Light-weight Trimline phone has dial in handset, making dialing easier, more convenient.

Trimline, Telephone

compact, dial-in-handset phone which would be technically practical and would have enough "style" to be field-tested. Nicknamed the "Demitasse" by its designers, this set was tested on a limited basis in Brooklyn, New York, San Leandro, California and Columbus, Ohio. Verdict: the public liked the concept but not the style.

A year later, in 1959, a redesigned model with a light in the dial, a new shape and a new nickname, the "Schmoo," was tested in New Brunswick, New Jersey. Once again, there was an enthusiastic reception for the idea, but anyone who remembers the comic strip namesake will understand why trial customers in New Brunswick said the set was too bulky to be practical.

A variety of shapes and designs then came from the drawing boards. Engineers tried to shrink the dial by making the holes smaller, but the size of the average human finger put a practical limit to that effort. Dials having spokes rather than holes were tried, but tests showed that people tend to dial elliptically, and so fingers slipped too easily out of spokes.

The solution finally was to reduce the diameter of the dial by eliminating the space between 1 and 0, which was accomplished by designing a movable finger stop. This at first was greeted with some skepticism by people at Bell Laboratories, who feared that the telephone user might have a sense of uncertainty and insecurity with a finger stop which moved with the dial. However, repeated tests with the new dial showed that people were not even aware that the stop was moving.

In 1961, two new, narrower, streamlined models were tried, this time in Richmond, Virginia. One of these with rounded, curving lines was called the "Contour;" the other, having spare, straighter lines, was offered as the "Trimline." Customers liked both, but favored the latter insofar as appearance and handling were concerned. Bell Laboratories went to work to perfect the new set internally: both transmitter and receiver were redesigned to reduce their size and printed circuitry was used for the first time in a telephone. The ringer was miniaturized to fit into the base which held the phone when it was not in use.

By 1963, customers in Royal Oak, Michigan had a chance to try the latest Trimline phone, now a completely self-contained dial-in-handset instrument. Public approval was enthusiastic from the beginning; people particularly appreciated the new phone's "recall" button, mentioned earlier. Later on in 1963 the Trimline phone was tested again, with a





Near dial is a recall button which allows you to make call after call without hanging up.

five-month sales campaign, in Jackson, Michigan and Janesville, Wisconsin. Results were very heartening for designers of the compact telephone. During those five months Trimline phones achieved a development of 3.1 per cent of the entire residence market in the two cities; sales of residence extension phones increased by 18 per cent in the same period.

The Trimline compact telephone, as is the case with many other successful new products, has traveled a long road of design, trial, re-design, more trial—

and the end is not yet. Last July, a product trial was completed in Chicago, this time incorporating the convenience of Touch-Tone® calling in the Trimline phone, with small push-buttons in place of the dial. Manufacture of this newest version of the Trimline phone should be under way by mid-1966.

And so the evolution of the telephone continues. The direction of this evolution will be determined, as it has been in the past, by the customers themselves: by their needs and desires for new convenience, new designs, new services.

Three stages of the new phone's development show the telephone installer's test handset, the early "Schmoo" version with standard-size dial and the present-day Trimline handset.

