

will provide a new communications link between Hardin and Billings, Montana. Additional TL systems are scheduled for installation by Western Electric in other telephone company areas in the near future.

TL Microwave has been designed to provide the telephone companies with a radio relay system competitive in cost with cable or open wire wherever requirements are as low as 25 to 50 circuits. At the same time, TL's maximum circuit capacity—up to 180 simultaneous telephone conversations or many one-way data transmissions—is high enough to accommodate growth for many years into the future.

Special features of the TL system are its flexibility in use and its relatively small power requirements. It is expected to find wide application in situations where open-wire or cable lines are economically impractical—thus overcoming problems caused by difficult terrain or the need to secure rights-of-way. Its compact design permits TL stations to be installed near sources of commercial power and along roads where existing utility rights-of-way have been established. Its low power requirements—made possible by the almost exclusive use of semiconductors in equipment design—enable the TL system to operate on regular storage batteries kept continuously charged by commercial power. (If commercial power fails, the batteries can sustain operations for more than 20 hours).

A telephone on which 50 frequently called numbers can be recorded and automatically dialed is now undergoing field tests in Buffalo, New York. Called the Integrated Magnetic Drum Dialer, the new device was conceived and developed by Bell Laboratories. The trial models were produced in Western Electric's Model Shop at the Indianapolis Works and delivered to the New York Telephone Company for the test.

The new telephone combines the features of a standard six-button key set with a number recorder and dialing mechanism



*Magnetic Drum Dialer telephone.*

—all within one compact housing. This design allows the subscriber to record up to 50 telephone numbers on a magnetic drum. Each space on the drum can accommodate up to 14 digits, thereby providing for Direct Distance and Inward Dialing Services.

The names and numbers of each recorded party may be written on the built-in directory for easy reference. In addition to automatic calling, the customer may dial numbers manually.

The safe-driving film titled "Anatomy of an Accident" has been completed, and preview prints have been sent to the Companies. This sound-color film, with David Wayne and Phyllis Avery, illustrates the vital principles of safe driving. It shows how the lack of these principles contributed to a fatal accident involving a tele-