In less than five minutes you'll see your crew dig a hole and set a pole when they use Tel-E-Lect's work matched winch-derrick-digger team. Your pole line crews really move down the right of way when they work with versatile Tel-E-Lect equipped line trucks! Mounted on a rugged 4-wheel drive chassis, Tel-E-Lect pole line construction and maintenance equipment can work almost anywhere—extending its pole hole digger under low wires, up on hills, across ditches, or down in them—amazing "reachability!"

Tel-E-Lect products are designed and built to solve the problems your pole line crew meets on the job every day or "once in a lifetime!" Tel-E-Lect engineers are constantly solving "special" problems for customers by designing new units or modifying existing products for new applications.

Industry-tested and industry-accepted Tel-E-Lect products include truck bodies, standard and hydraulic derricks, pole hole diggers, winches, PTO's, transmissions, drive units and other specialized products to make line work a minimum effort—minimum cost operation.

With Tel-E-Lect your original investment and installation costs are lower and installation time is cut way down too! It's easy to mount any Tel-E-Lect product on a truck chassis because they're designed and delivered in a complete package that includes all the required parts. In addition, many of these products are designed in a series of kits to fit all popular make trucks commonly used for pole line work. Because they're individually designed, Tel-E-Lect kits can be installed quickly, by your local mechanic and expensive truck modifications are kept to a minimum!

Investigate Tel-E-Lect's complete team of pole line erection and maintenance equipment—there's a unit designed exactly for your job!

Radio Test Set

Do you mount radio test equipment on the wall or in racks in your radio shops, rather than have the equipment sit on the shelves or the bench?

Special Work Bench

By P. A. Flanagan
Superintendent of Communications
Chesapeake & Ohio
Richmond, Va.

We have designed a work bench specifically for electronic and radio repair work. A section comprised of five compartments is mounted on the back of the work bench for radio test set mock-up panels. The radio test equipment, such as deviation and frequency monitor, radio frequency generator and audio-oscillator, is mounted in line on top of this section of compartments, the compartments being similar to a shelf extension the entire length of the bench.

This system allows the location of test equipment in the immediate vicinity of the test mock-up and the radio equipment being tested. Also with this arrangement, the working area of the bench is kept clear of all test equipment, allowing more freedom of movement of the unit under test.

Main-Track Leaving Signal

Where cost is a factor, do you use a dwarf for the main-track leaving signal at the end of a siding rather than throw the siding over to provide clearance for a high signal?

Use High Signals

By A. L. Herbert
Signal Engineer
Western Pacific
San Francisco, Cal.

Our practice is to install a high signal for main track leaving signals at the end of sidings. High signals are used exclusively on high speed track for all absolute "stop and stay"
signals in order that they may be as prominently displayed as possible in view of their importance in the operation of the traffic control system. We use the high, 7 ft. 6 in., dwarf signal for all absolute siding leaving signals, except those between tracks.

We encounter the usual difficulties with dwarf signals caused by restricted visibility due to obstructions, such as drifted snow, standing trains, vehicles and pedestrians at road crossings in populated areas, as well as restrictions due to curvature and grade. Then, too, the dwarf signals are more susceptible to damage due to objects falling from passing trains, brake riggings down and malicious damage by passers-by in populated areas. The aspect displayed by the dwarf signals are no more restrictive than those displayed by high signals on this railroad. However, we prefer not to use them on high speed track.

### Signaling Exhibitors

The manufacturers named below are exhibiting their products at an exhibition held in conjunction with the annual meeting of the Signal Section, A.A.R., September 20, 21 and 22, at the Conrad Hilton Hotel, in Chicago. This exhibition is under the auspices of the Signal Appliances Association of which E. F. Galvin, manager of railroad sales, Simplex Wire & Cable Company, is chairman.

---

**THROUGHOUT THE WORLD**

CIPEL—LE CARBONE

---

**air depolarized**

**AD PRIMARY CELLS**

---

**Save users**

**LABOR, TIME, MONEY**

Maximum discharge rates:
1.0 amp. continuous
2.5 amp. max. intermittent
Approximately one gallon of water for 2500 watt hours.
No washing of jars.
No mixing of caustic.
Only one stores item.

Railway track circuits—light signals—electrical aids to navigation, Telephone exchange batteries, etc.

---

ad 608a

Argentina—LE CARBONE LORRAINE, Erezcano 3051/53 Buenos Aires, Argentina
Belgium—LE CARBONE S.A.B., 124 Bd. du Jubilee, Brussels, Belgium
Brazil—CARBONO LORENA S.A.—Rua Barão, Itepêlinha 273 Sao Paulo, Brazil
Canada—CIPEL (CANADA) LIMITED—Valleyfield, Quebec, Canada
England—LE CARBONE (GREAT BRITAIN) LTD.—Portslade, England
France—CIPEL, Argenteuil (S&O) France
Germany—CARBONE A.G., Bonames, Frankfurt/Main, Germany
Italy—SOCIETA "PILE CARBONIO," via Rosari 20, Milan, Italy
Spain—CIPEL, Juan Bravo, Madrid, Spain
Sweden—SVENSKA A.B., LE CARBONE, Sundbyberg, Sweden
U.S.A.—THE CARBONE CORPORATION, Boonton, N. J.

---

Anaconda Wire & Cable Co., N. Y.
Buckeye Telephone & Supply Co., Columbus, Ohio
Corning Glass Works, Corning, N. Y.
Erico Products, Inc., Cleveland, Ohio
Federal Telephone & Radio Co., Clifton, N. J.
General Electric Co., Schenectady, N. Y.
Line Materials Co., Milwaukee, Wis.
Motorola Communications & Equipment, Inc., Chicago, Ill.
National Carbon Co., N. Y.
National Telephone Supply Co., Cleveland, Ohio
Nife, Inc., Copiague, L. I., N. Y.
Pocketlist of Railroad Officials, N. Y.
Permacrete Products Corp., Columbus, Ohio
Rail Joint Co., New York, N. Y.
The Rails Co., Hoboken, N. J.
Rust-Oleum Corp., Evanston, Ill.
Spaulding Fibre Co., Chicago, Ill.
Transport Products Corp., Louisville, Ky.
United States Steel Co. (American Steel & Wire), Pittsburgh, Pa.
Western Railroad Supply Co., Chicago, Ill.

---

railway signaling and communications SEPTEMBER, 1956