



McELROY

DEPENDABLE High Speed Communication

By SKILLED Communications Engineers

of long EXPERIENCE and INTEGRITY

Introducing

Here are the facts behind the "story of McElroy" — facts about their personnel and their plant. They are unique in the annals of manufacturing, and the basic reasons for the superiority in quality and precision.



T. R. McELROY . . .

the man behind the equipment, World's Champion radio telegrapher, thirty years in the communications field as operator, manufacturer and executive.



J. F. RIGBY . . .

Communications consultant and Manager Training Division. Thirty years and more in the business as operator and personnel director. Has followed communications development from the spark days through mechanization.



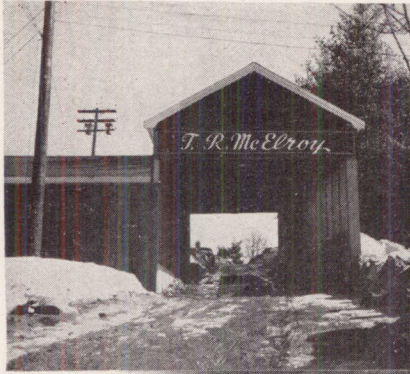
RAY H. DePASQUALE . . .

Sales Manager, McElroy Manufacturing Corporation, and President, the Technical Materiel Corporation, twenty-five years as operator and communications engineer on mechanized system operations.



W. J. GALIONE . . .

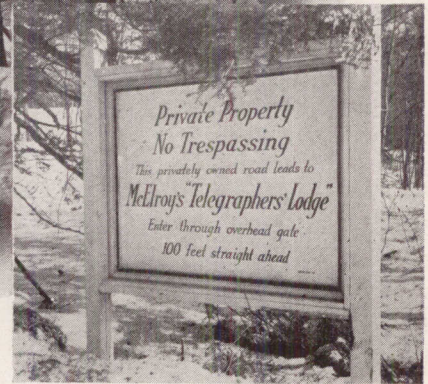
Assistant Sales Manager, McElroy Manufacturing Corporation, and Vice President, The Technical Materiel Corporation, systems engineer on teletype and automatic telegraphy.



Entrance Gateway



The Lodge



Direction Signpost

Telegraphers' Lodge is located at Littleton, Massachusetts, in the heart of the New England rural manufacturing area. Situated on the shore of a wooded lake, the factory building contains all of the precise mechanical machinery necessary to the manufacture of high grade communications terminal equipment. There the machinist will find all the tools necessary—Brown and Sharp millers and grinders, shapers, Duall equipment, and precision lathes, together with all the necessary mechanical test equipment. A complete electronic shop insures that the electronic portions of the equipment are accurate and carefully tested.

The entire site covers something over ten acres, and adequate living facilities are provided for visitors as well as for engineers working late into the night. The area is adequately fenced so that classified work may be carried on in complete secrecy.

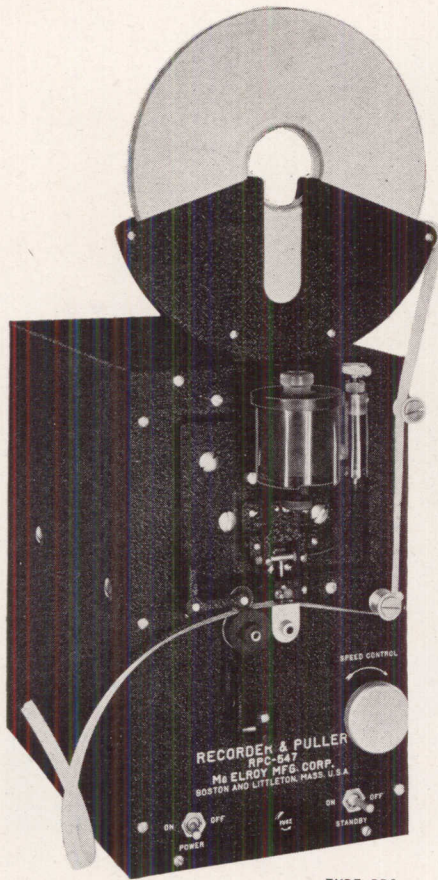
Ted McElroy has trained thousands of members of the armed services in automatic telegraphy, as well as many visitors from foreign lands, and this training will continue aided and assisted by Frank Rigby, with thirty years of experience in personnel and training work.

An ideal place to work—to produce Communications Equipment the kind of equipment that must operate twenty-four hours a day without failure . . .

Telegraphers' Lodge

McELROY RECORDER and PULLER . . . Type RPC

COMBINED UNDULATING-TYPE RADIOTELEGRAPH RECORDER AND TAPE PULLER



TYPE RPC

OPERATING
POWER
110/117 VOLTS
Single Phase
50/60 CYCLES
Also available for 210/240
volts 50/60 cycles.

WEIGHT
40 LBS. NET
18x21x12 $\frac{3}{4}$ inches.

SIZE
18" x 16" x 7 $\frac{3}{4}$ "
Gross weight packed for
overseas shipping 60 lbs.
crate size approximately

The McElroy undulating type Ink-slip recorder and tape puller type RPC incorporates five features not found in recorders generally.

Speed attainable with this unit is 1500 words per minute and the design features which give this speed are responsible as well for the enduring structure of the recording mechanism, fabricated of steel, beryllium copper and heavy laminated plastics.

The recording coil is only four ohms impedance, requiring a few turns of comparatively heavy wire. This low impedance characteristic of the recording coil allows the use of heavy and durable parts in its construction.

The tape drive, an integral part of the recorder and puller includes a counterpoised frame through which the drive shaft is geared to the motor. The torque of the drive mechanism thus automatically adjusts itself to the load. Losses due to ordinary friction coupling between the motor and drive shaft are avoided.

The tape is picked up and allowed to pass under the recording pen when the tape end is presented to the drive mechanism. The operator is not required to thread the tape through.

The tape roll is held freely in position. The roll does not need centering on the hub, no part of the magazine need be unlatched, and the free end of the tape cannot tangle or twist.

The ink well is transparent lucite. The amount of ink in the well is always visible.

Ink cannot splash or drip into the recording mechanism or into any part of the recording coil because the pen point is well below the level of the recording mechanism, which is housed within the recorder box and is connected to the pen by means of an amplifying linkage.

The magnetic field in which the recording coil works is provided by a large alnico permanent magnet. Use of a permanent magnet rather than an electromagnet prevents heat rise due to operation. The service of the recorder will not be interrupted by burned-out field coil windings.

The recording coil is driven by sharply peaked power impulses delivered by the McElroy Differentiating amplifier Type RDA. Power is applied to the coil only during the instant that the coil must be put into motion, and for the greater part of the mark and space period, the coils bears no current.

Thus, high driving power is given to the coil with little damaging heating effect. This principle, an original McElroy development required five years of engineering and trial.

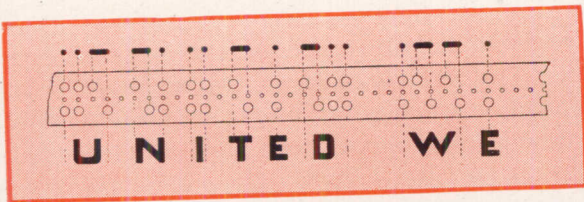
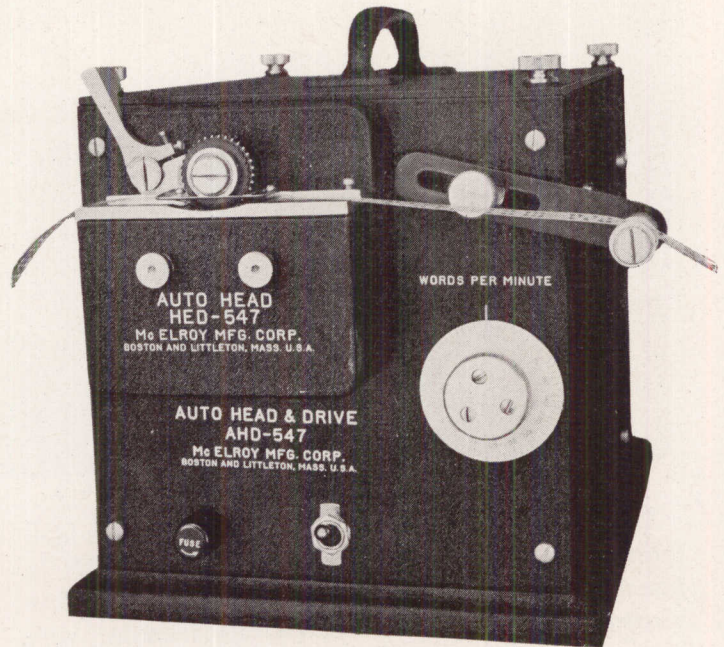
More complete description of the functioning of the Type RDA amplifier is given in the catalog page describing RDA.

McELROY AUTO HEAD and DRIVE

TYPE AHD
AUTO HEAD AND DRIVE

TYPE HED
AUTO HEAD

A Combination that provides
SPEED • SIMPLICITY • RELIABILITY

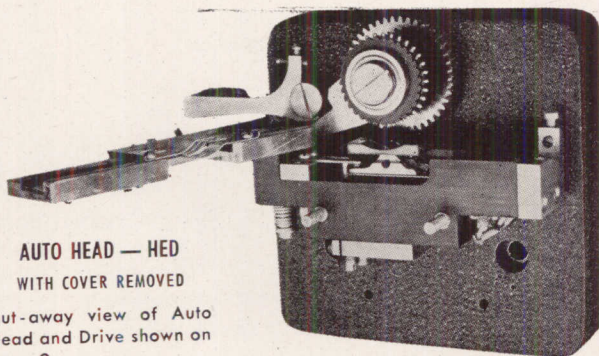
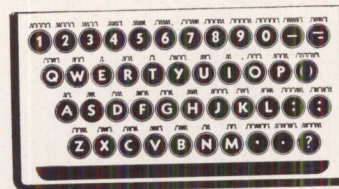


The McElroy type HED is the fastest mechanical Wheatstone keying head currently available. This unit is now in widespread use in China, the French and Dutch colonies and elsewhere where maintenance problems are particularly severe. It was chosen for these services by communications engineers who required a simple and reliable keying device, easily operated and easily repaired. Special beryllium copper springs and short pecker pins prevent bending of contacts which is usually the reason for "ghosting" at high speeds.

When the type HED is combined with the variable speed drive the type number becomes AHD, and

makes possible a self-contained unit for full AC operation at speeds variable from 10 to 500 words per minute.

The HED and AHD provide polar contact output, and will read all Wheatstone tape prepared by a Kleinschmidt, Creed or McElroy perforator.



AUTO HEAD — HED
WITH COVER REMOVED

Cut-away view of Auto Head and Drive shown on page 9.

OPERATING POWER AHD

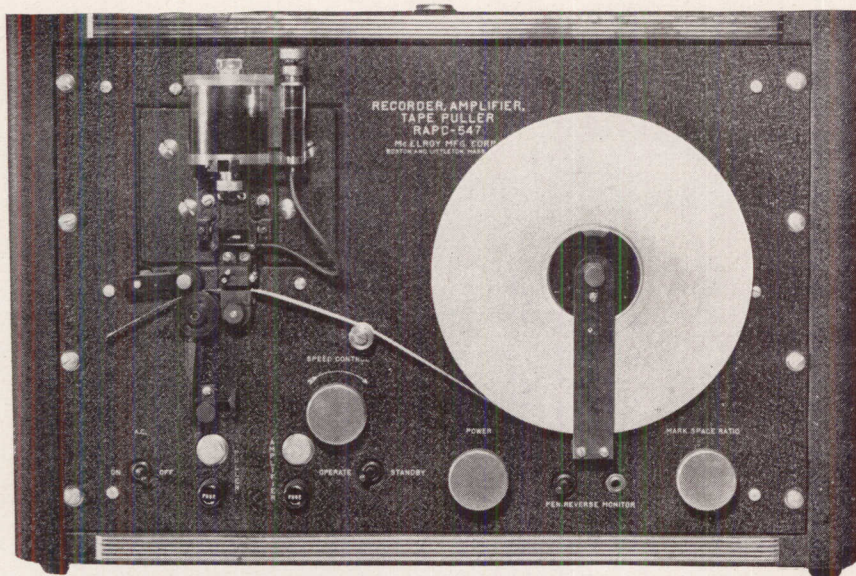
110/117 Volts — Single Phase • 50/60 Cycles

Also available for 220 volt operation.

NET WEIGHT: HED only 2 lbs. • AHD 13" x 8 1/2" x 10"
SIZE: HED 4x4x3" • AHD 23 lbs.

Gross Weight packed for overseas shipment

HED 4 lbs. Size 6x6x6"
AHD 38 lbs. Size 18x14x15"



**McELROY
RECORDER,
AMPLIFIER
and
PULLER
Combination
Type RAPC**

The recorder combination shown above fills a long felt need for a complete automatic undulator unit. In panel space of nineteen by twelve inches this unit provides a high speed undulator tape recorder, with high speed puller mounted directly under the pen for best pulling action, together with space for the tape reel which incidentally automatically centers itself when replaced.

This unit uses the McElroy pulse method of record-

ing, with built in pulse amplifier and heavy Alnico pen magnet. The puller is of the smooth running CTP type, the speed of which will not vary from the calibrated setting, making the equipment ideal for the recording of teletype impulses in fixed ratio to base speed. Moreover, the units may be easily mounted in dual or triple form and interlocking switches provided so that one unit will start when the other runs out of tape, thus preventing breaks in copy.

INPUT

TONE...

Any tone input from 600 to 6000 cycles at zero DB level.

CONTACT...

This connection provides for the making of tape by means of a hand key or on-off contact device. Such tape can be scanned by a McElroy scanner for retransmission.

FREQUENCY SHIFT...

Operation direct from the receiver of a frequency shifted signal, either from the discriminator or second detector of an FM receiver, or by mon-

itoring either mark or space with the receiver BFO at audio levels.

VOLTAGE...

Operation from any source of mark and/or space voltage.

TELETYPE...

The output of any teletype may be used to place teletype characters on tape for retransmission by scanning, or for storage without a reperforator, or of course the recorder will record the teletype pips off the air.

This unit will operate on either the mark or space impulses, a sense switch being provided for reversal of recording. Bias and power controls and indicating fuses are provided. The equipment is entirely modern in conception, and many smaller but nevertheless important points such as visible ink level, ease of cleaning, and tape threading have been taken care of

in an exceptionally satisfactory manner.

OPERATING POWER: RAPC 110/117 volts single phase 50/60 cycles. Also available for 220 volt operation.

NET WEIGHT.....90 lbs. **SIZE**.....18x25x15 Inches
Gross weight packed for overseas shipment
140 lbs.....20x28x18 Inches