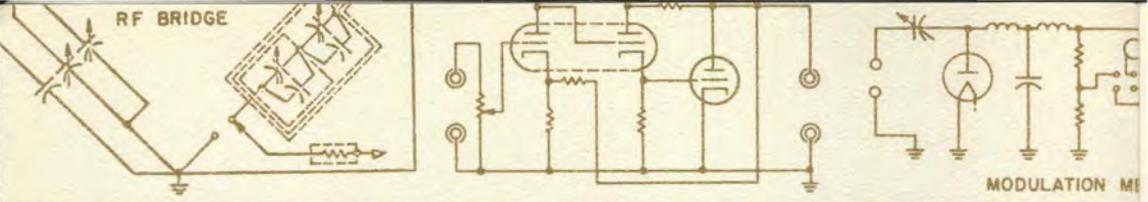
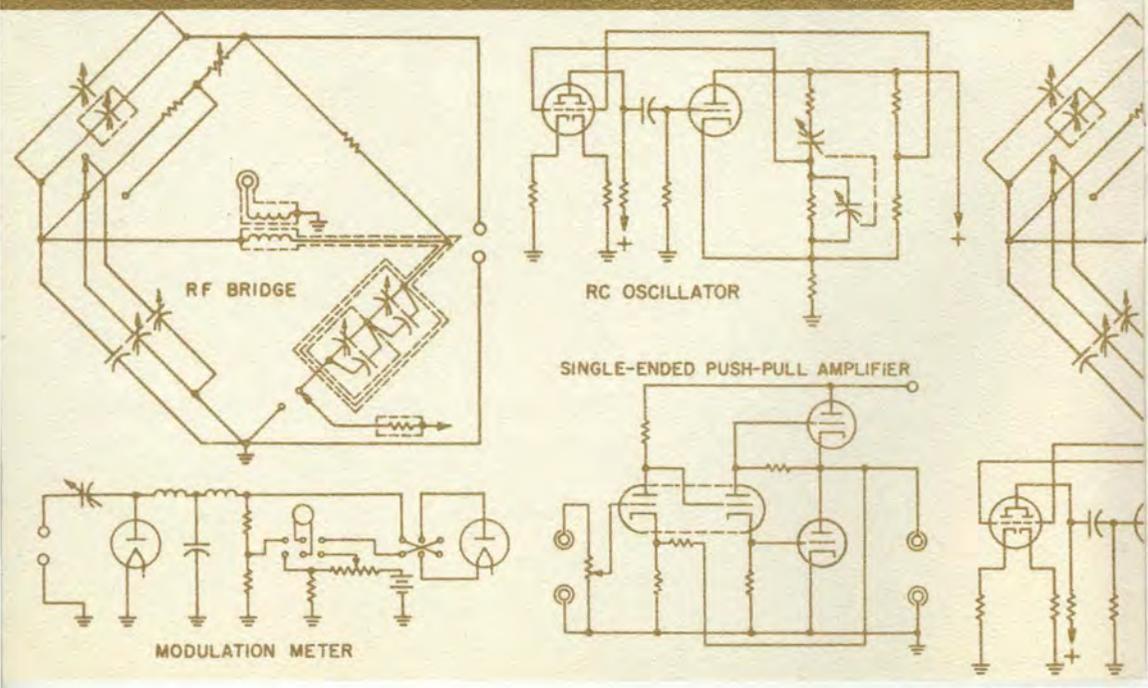


GENERAL RADIO COMPANY
WEST CONCORD, MASSACHUSETTS, USA



General Radio plant at West Concord, Mass.



Our Fiftieth Anniversary

Fifty years ago the word "radio" was rarely used. The newly formed Institute of Radio Engineers had given it currency in American scientific and engineering circles, but, to most people, communication without wires was "wireless."* For their new venture, Melville Eastham and his associates chose the



Melville Eastham

name General Radio Company, which in 1915 was only slightly more accurate in defining the Company's product than it is today. From the first, the Company's business has been measurement, and its products the instruments and standards with which measurements are made.

*As, indeed, it still is in Great Britain.

Continuing progress in science and engineering is based on ever-increasing accuracy and facility in measurement. The radio art (hardly a science in 1915) had little but low-frequency instruments and optimistic extrapolation to spark its advances. With rare foresight, Eastham chose as his field the manufacture of instruments for radio and for the electrical communications industry, the early core of the vast industry we now call electronics. For the ensuing half century, General Radio's activity has centered around electronic instruments, and its market place has been the whole world.

Why did General Radio avoid the vicissitudes that beset most of the early companies in this industry? In electronics, 50-year-old companies are rare. Rarer still, however, are companies with 50-year continuity of management and consistency of policy. Therein lies part of the answer. Continuity of management provides the consistency of policy that can keep a company on a profitable course of growth and achievement. General Radio has had but four presidents in fifty years, and all its officers have come from within the organization.

Another reason, and a powerful one, for General Radio's success is the choice of products to be manufactured — in this instance they were new, first-of-a-kind products that the industry needed in order to advance. GR's history is a history of the measuring devices of electronics. Our first products, announced in 1916, were standards — of capacitance, inductance, resistance, and fre-

quency. Pioneer instruments designed to meet recognized measurement needs followed shortly thereafter and have appeared in increasing numbers over the ensuing years. The record shows many "firsts," both in original invention and in commercial availability.

Among the significant development "firsts" covered by General Radio patents are the variable autotransformer, the butterfly circuit, the familiar Wien-bridge RC Oscillator circuit, the hermaphroditic, coaxial, uhf connector, the series-substitution rf bridge, the direct-reading modulation meter, the single-ended push-pull amplifier, the Wien-bridge frequency meter, and the power-level indicator.

Commercial firsts include the beat-frequency oscillator, the quartz-crystal frequency-and-time standard, the stand-

ard-signal generator, the heterodyne wave analyzer the tone-burst generator, the all-electronic automatic capacitance bridge, the vacuum-tube voltmeter, the sound-level meter, the standard-sweep-frequency generator, the impact-noise analyzer, the precision coaxial connector, the digital time comparator, the electronic stroboscope, the Z-Y bridge, the megohm bridge, and many others.

Pioneering is to be expected from a company that grew up in the pioneering era of the industry. Yet it takes a kind of technical prescience, combined with economic judgment, to make innovation profitable, and GR was fortunate that its founder combined these qualities to an unusual degree.

Fully as important as the pioneer approach is craftsmanship, the ability to produce a stable, durable, honest product. This, we believe, is an important part of General Radio's reputation, and we are proud of it. Sound



(Left) An early GR wavemeter (1918); (below) the new Type 1144-A Digital Frequency Meter.

construction not only yields long life for an instrument, it ensures the trouble-free operation that builds customer confidence.

Complementing the quality construction are conservative specifications. Tolerances for test and calibration are far tighter than published values, which must hold for two years under our standard guarantee. It means little to specify the accuracy of original calibration if no guarantee of stability is included. Specifications, too, must be complete and detailed. General Radio's method of listing performance specifications was first introduced in our Catalog F in 1929; it has since been adopted without essential change by the entire industry.

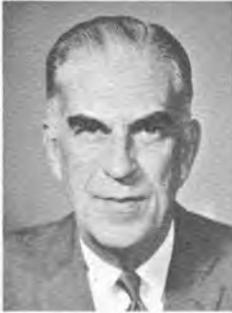
General Radio is an engineer's company. The engineering background predominates, not only in product development but also in management, manufacturing, and marketing.

The management of the Company is in the hands of committees. At the top is the Board of Directors, charged with the over-all conduct of company affairs — broad policies, finance, growth. Line management rests with the Management Committee, which is made up of company officers and the heads of operating departments — engineering, manufacturing, and marketing. Product planning is the function of the New Products Committee, which includes representatives of both marketing and engineering. Product development is organized and supervised by the Development Committee, composed of the Vice President for Engineering, the Market Research Manager, and group leaders in the Development Engineering Department. Other formal committees include Personnel, Patents, Data Processing, Pricing, etc. These are supplemented by a



(Above) The Type 216 Capacity Bridge (1921), for many years the industry standard; (left) the Type 1680-A Automatic Capacitance Bridge, newest of General Radio's extensive line of bridges.

DIRECTORS AND OFFICERS OF THE GENERAL RADIO COMPANY



Arthur E. Thiessen*
Chairman of the Board



Donald B. Sinclair*
President



Ivan G. Easton*
Vice President
for Engineering



Myron T. Smith
Vice President
for Sales



Harold M. Wilson*
Vice President
for Manufacturing



Lawrence H. Pexton
Treasurer



John D. Quackenbos
Secretary & Clerk

*Director

number of informal interdepartmental groups, who meet regularly and provide the communication links so necessary for a well-integrated organization.

Who owns General Radio? The employees do — not the public or top management, but practically everyone on the Company payroll. Stockholders are people at management, professional and supervisory levels, but all employees participate indirectly in ownership through the Profit-sharing Trust, a portion of whose assets is invested in General Radio common stock, and

which owns about one-third of the Company. Through profit-sharing bonuses as well, every employee shares in profits; thus, each has a stake in the Company's success.

How big is General Radio? Our main plant in West Concord includes 293,000 square feet of floor space; our Bolton plant presently has 80,000 and will eventually expand to about 300,000. Total employment is approximately 1,000. Of this, some 60 people are development engineers and 50 are sales engineers. Supporting groups — assist-

ants, technicians, secretaries, draftsmen, — more than double these numbers. About 500 are directly engaged in manufacturing. These 700 or so people design, produce, and sell a line of products embracing some 200 basic, major instruments, many of which are offered in several variations, and an equal number of accessories and components. Administrative, financial, promotional, purchasing, personnel, maintenance, and other supporting activities bring the total to just over 1,000.

Growth? Yes, we have grown. After all, General Radio started with only two employees, the president and a skilled mechanic. We are growing now; we shall continue to grow. Although automated operations and data processing take over functions that were formerly manual, employment continues to increase.

Profits, however, provide the only funds for expansion in an internally

owned company. Consequently, the often-spectacular growth of the publicly held company (and the sometimes equally spectacular decline) is not likely. The steady growth characteristic of GR, however, permits better planning, more stable employment, and a better place to work. All this results in low labor turnover and a continuity of skills and procedures throughout the organization.

For every company in this business before World War II, there are now dozens. All are making products not dreamed of a few decades ago. In the future, more and more measurements will be automated, new test methods will be developed, and still better accuracies of measurement will be needed.

As a result, at General Radio, increasing emphasis is placed on long-range planning and market research, to aid our expanding engineering staff to develop the products needed, not only for today's market but also for tomorrow's.



General Radio plant at Bolton, Mass.