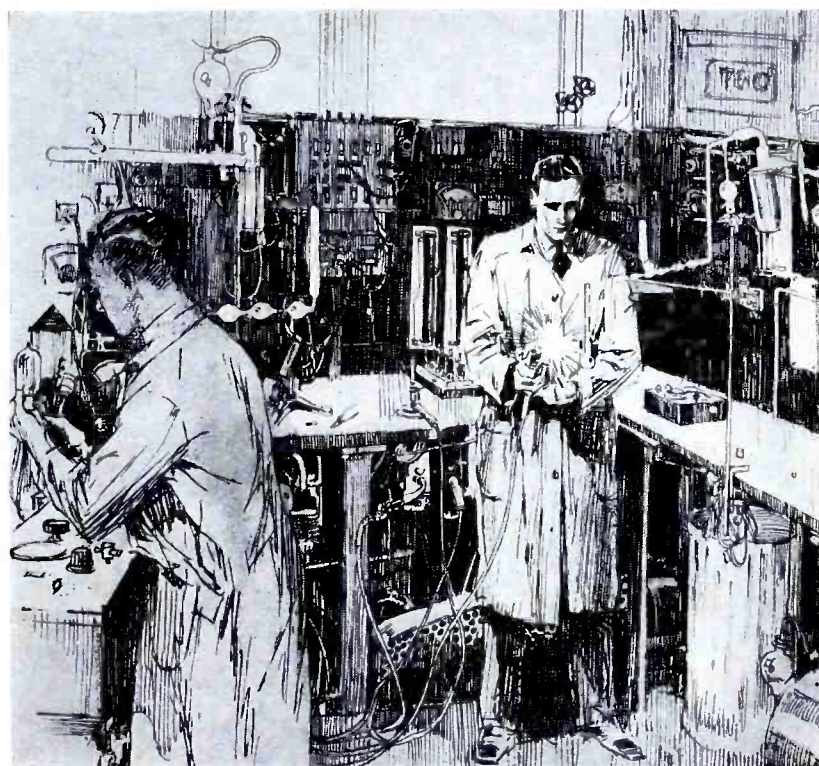


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Radiation-Cooled Power Tubes	<i>Mendenhall</i>	XI- 30
Role of Barium in Vacuum Tubes	<i>Becker</i>	IX- 54
Standard Test Set for Vacuum Tubes	<i>Lindsay</i>	IX- 85
100 Kilowatt	<i>Mendenhall</i>	XII- 98
Viscosity in Solids	<i>Wegel</i>	VIII- 94
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Water at West Street	<i>Leyden</i>	XII- 13
Wetting of Solids by Liquids	<i>McLean</i>	XII- 49
Wood Preservation		
Forecasting Behavior of Preservatives	<i>Waterman</i>	XI- 67
How Wood Decays	<i>Colley</i>	XI-301
Proving Grounds for Poles	<i>Lumsden</i>	XI- 9

Y

Year of Progress in Telephony (1929)	<i>Gifford</i>	VIII-350
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Captions for Frontispieces

1932

MARCH	Measuring thin sheets of material with an optimizer accurate to one hundred-thousandth of an inch.
APRIL	Sequence switches in a panel dial office.
MAY	Welding by the electric-arc method in the new welding laboratory.
JUNE	An electrometric analysis of a salt solution used for the preservation of telephone poles.
JULY	Turning the die for an experimental transmitter diaphragm, in the development shop at West Street.
AUGUST	Sinking a die for the phenol-plastic mounting of an experimental model.
SEPTEMBER	Lathe-type glass-working machine used in the manufacture of modern power vacuum tubes.
OCTOBER	A new broadcast transmitter (12A) which, with an associated amplifier, covers the power range from 100 to 1000 watts.
NOVEMBER	An iron screw inside its galvanized coating, as photographed in the Materials Laboratory by double exposure with an intervening acid treatment. Each small square is 0.0005 inch on a side.
DECEMBER	Apparatus used at Bell Telephone Laboratories for measuring the quantity of various gases in ferrous alloys.

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1933

- JANUARY When this central-office fuse blows, the spring makes a contact which rings an alarm, and at the same time raises the colored glass indicating bead so that it can be quickly located and the fuse replaced.
- FEBRUARY Interior of one of the transmitters built in the Laboratories for the new Central America radio-telephone service.
- MARCH X-ray photograph of potted network assembly, taken to show the relative positions of the coils and condensers after the can has been filled with sealing compound.
- APRIL Upper half of jig for testing toroidal cores. The pointed conductors dip into small wells of mercury to form a 75-turn winding around the core to be tested.
- MAY Dr. Leopold Stokowski, Director of the Philadelphia Orchestra, whose voluntary cooperation greatly facilitated the Laboratories' studies leading to the reproduction of music in auditory perspective.
- JUNE Apparatus employed at the Summit laboratories for measuring the rate of flow of humidified gases through wood sections.
- JULY In this unique three-element vacuum tube, on display at the Century of Progress, the plate is coated with a fluorescent material, and the brightness of the luminous bands across it is an indication of the plate current.
- AUGUST Three electrode high-vacuum thermionic tube, developed by H. D. Arnold; used in 1914 as a repeater element in transcontinental telephony.
- SEPTEMBER Measurement of surface leakage on glass insulators.
- OCTOBER The quality of the enamel insulation on wire, once tested by the thumb nail, is now tested accurately by an automatically recording machine.
- NOVEMBER Apparatus for extracting organic materials from various bodies by means of ether.
- DECEMBER In this resistance furnace, crucibles rise through the interior of the alundum tube shown in the foreground while their contents are being heated.

1934

- JANUARY Apparatus used in research studies of photoelectric cells.
- FEBRUARY A group of duralumin transmitter diaphragms studied in the Chemical Department to determine the effects of various metallurgical treatments in corrosion resistance.
- MARCH Loud speakers for reproduction in auditory perspective. In the foreground are the loud speaker and horn for high frequencies.
- APRIL Winding grids for experimental vacuum tubes at the Tube Shop.
- MAY Assembling the 700A Selector used for remote control of radio transmitters.
- JUNE The cathetometer is a convenient means for measuring the deflection of a quartz-spring balance.
- JULY High-frequency quartz plate showing an interference pattern in an optical test for flatness.
- AUGUST The amount of gas evolved from a metal is measured by noting the increase in weight of an absorbing agent suspended on a quartz spring.

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