Anderson, New Mexico College of Agriculture and Mining, State College.)

6–8. American Inst. of Chemists, Atlantic City, N.J. (L. Van Doren, American Inst. of Chemists, Inc., 60 E. 42 St., New York 17.)

6–8. American Pediatric Soc., Buck Hill Falls, Pa. (A. C. McGuinness, 2800 Quebec St., Washington 8.)

6–9. National Science Fair, 10th, Hartford Conn. (Science Clubs of America, 1719 N St., NW, Washington 6.)

6–10. Infectious Pathology, intern. cong., Milan, Italy. (A. Janussi, Secretary General, via Boccaccio 25, Milan.)

7–9. Midwestern Psychological Assoc., Chicago, Ill. (I. E. Farber, Dept. of Psychology, Univ. of Michigan, Ann Arbor.)

7–9. World Cong. on Agricultural Research, International Confederation of Agricultural Engineers and Technicians, Rome, Italy. (CITA, Regional Secretariat, 86, via Barberini, Rome.)

8–10. Uranium, 4th annual symp., Moab, Utah. (AIME, 29 W. 39 St., New York 18.)

9–11. International Soc. of Acupuncture, 10th cong., Paris, France. (SIA, 8 avenue Franklin Roosevelt, Paris 8e.)

10–15. Society of American Bacteriologists, St. Louis, Mo. (E. M. Foster, Univ. of Wisconsin, Madison 6.)

10–14. American Soc. of Maxillofacial Surgeons, Chicago, Ill. (O. H. Stuteville, 700 N. Michigan, Chicago 11.)

11–13. Instrumentation and Computation in Process Development and Plant Design, symp., London, England. (Institute of Chemical Engineers, 16, Belgrave Sq., London, S.W.1.)

11–13. Microwave Theory and Techniques, natl. symp., Boston, Mass. (H. Pratt, Inst. of Radio Engineers, 1 E. 79 St., New York 21.)

11–13. Power Instrumentation, natl. symp., Kansas City, Mo. (H. H. Johnson, Consolidated Edison Co. of New York, Room 1515-S, 4 Irving Pl., New York 3.)

13–16. Human Biochemical Genetics, Ciba Foundation symp., London England. (G. E. W. Wolstenholme, Ciba Foundation, 41 Portland Pl., London, W.1.)

14–15. Operations Research Soc. of America, Washington, D.C. (H. J. Miser, Rt. 2, Box 211, Vienna, Va.)

14–16. Acoustical Soc. of America, Ottawa, Canada. (W. Waterfall, 335 E. 45 St., New York 17.)

14–17. American Acad. of Dental Medicine, 13th annual, Atlantic City, N.J. (H. A. Lentz, 619 Main Ave., Passaic, N.J.)

14–16. American Assoc. of Physical Anthropologists, Madison, Wis. (E. E. Hunt, Jr., Peabody Museum, Harvard Univ., Cambridge 38, Mass.)

17–21. American Ceramic Soc., 61st annual, Chicago, Ill. (C. S. Pearce, ACS, 4055 N. High St., Columbus 14, Ohio.)

17–21. Institute of Food Technologists, 19th annual, Philadelphia, Pa. (C. S. Lawrence, IFT, 176 W. Adams St., Chicago 3, Ill.)

17–23. Antibiotics, intern. symp., Prague, Czechoslovakia. (M. Heřmanský, Antibiotics Research Inst., Roztoky near Prague, Czechoslovakia.)

17–23. Mass Spectrometry, 7th, Los Angeles, Calif. (A. G. Sharkey, Jr., U.S. Bureau of Mines, 4800 Forbes Ave., Pittsburgh 13, Pa.)

Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable, and it reflects the claims of the manufacturer or other source. Neither Science *nor the writer assumes responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed is included in the postcard insert.*

■ RADAR TARGET SIMULATOR for X-band radar provides a delayed target to a pulse radar at its microwave frequency. The target pulse is locked to the radar frequency by an automatic frequency control loop. Power output is adjustable from −10 to −80 dbm. Target velocities up to 5000 ft/sec, acceleration up to 30 *g*, and ranges up to 30 mi are available. (Remanco, Inc., Dept. 626)

■ PRESSURE-GAGE PROTECTOR is designed to protect such pressure-measuring devices as manometers, draft gages, pressure switches, and low-pressure transducers. The device will reopen after sealing at 2 percent below the cut-off point. Four ranges are available, covering pressures from −15 to +85 lb/in.^{2} (gage). (Industrial Engineering Corporation, Dept. 632)

■ TELEVISION CAMERA for industrial applications automatically accommodates a light range of 120 to 1, equivalent to adjustment from *f*/1.5 to *f*/16, with 50 percent change in output level. Beam, target, and electrical focus circuits are also automatically adjusted to optimum values. Dimensions are 6¾ by 5⅛ by 11 3/16 in.; weight is 10 lb. (Thompson Products Inc., Dept. 633)

■ DIGITAL VOLT-OHMMETER provides four switchable bipolar voltage ranges from 1 to 1000 v and four switchable resistance ranges from 1 to 1000 kohm. Polarity is automatically detected and indicated, and the decimal point is automatically indicated. Transistor circuitry, with no moving parts, is used. Reading time is less than 10 msec. Voltage accuracy is better than ±0.1 percent for d-c and better than ±0.25 percent for a-c. Accuracy of resistance measurement is within ±0.25 percent of range. Measurement may be triggered at a rate up to 100 per second or may be controlled by pushbutton. Indication is in line and in plane. The instrument can drive printers, punches, and memory storage units. (Epsco, Inc., Dept. 635)

■ PROJECTION COMPARATOR for work in the 3 to 20× magnification range provides up to 3 in. of field coverage on the subject at one time. The optical system of the instrument is completely contained within the body of the unit. Observations may be made in ordinary light. (Stocker & Yale Inc., Dept. 648)

■ POTENTIOMETER LINEARITY TESTER evaluates the linearity of 1-, 3-, and 10-turn potentiometers. The device includes power supply, test voltage supplies, d-c amplifier, master potentiometer, and angular-position scale. Connections are provided for recording the data. For production testing, the unit will stop automatically when nonlinearity exceeds a preselected tolerance and will indicate percentage deviation from linearity on a panel meter. (Boller and Chivens, Inc., Dept. 656)

■ PRESSURE-TO-FREQUENCY TRANSDUCER is basically a variable inductance transducer in which the transducer coil is part of an integral oscillator tank circuit. Variation of the coil inductance caused by pressure acting on a diaphragm causes the oscillator frequency to vary from the pretuned value. Repeatability is ± 1 percent or better. Any of the 18 telemetering channel frequencies from 400 cy to 70 kcy/sec may be used. (Datron Electronics, Dept. 641)

■ HIGH-TEMPERATURE FURNACE provides temperatures to 3000°F. The resistance of the heating element used does not change with use; hence new and used elements may be connected in parallel or series. Standard models include a controller, platinum-rhodium thermocouple, and a transformer. Tube and box types are available. (Lucifer Furnaces Inc., Dept. 642)

■ SAMPLE APPLICATOR for paper chromatography accepts paper sheets up to 18¼ by 22½ in. A stream of air of adjustable temperature impinges on the under side of the paper for rapid drying. A pipette bracket pivots on a moving carriage so that vertical and horizontal positions of the pipette are conveniently controlled. The working area at the line of origin on the paper is backlighted. (Research Specialties Co., Dept. 645)

■ MICROWAVE ABSORBER material is supplied as wet sand that is to be packed in place and cured with heat to a rigid absorber body. Three different bulk resistivities are available. Curing is accomplished at 300°F. (Emerson & Cuming, Inc., Dept. 640)

■ COLORIMETRIC ANALYZER automatically monitors chemical properties such as *p*H, water hardness, chlorine and phosphate concentration, and others. Sample liquid enters a metering chamber by gravity feed, and a measured volume is siphoned into a reaction chamber. At the same time a precise volume of reagent is added to the chamber, and the combined mixture is siphoned again into a lighted optical cell. Here the color may be compared with color standards or

monitored by a photocell. Accuracy of measurement of *p*H, for example, may be ± 0.5 *p*H unit with proper selection of indicators. (Florida Instrument Co., Dept. 653)

■ NEUTRON COUNTER is enclosed in an 8-in.-diameter paraffin-filled cylinder which moderates fast neutrons and discriminates against thermal neutrons. A concentric 15-in. diameter shield attenuates fast neutrons from the side. Ratio of front sensitivity to side sensitivity is 2 to 1 for 4.5-Mev neutrons. Detection efficiency is essentially independent of neutron energy from 50 kev to 5.0 Mev. Electronic components include a linear amplifier with pulse-level discriminator, a count-rate meter with eight ranges from 20 to 10,000 count/sec, a three-decade scaler, and a four-digit register. (Tullamore Electronics Laboratory, Dept. 651)

■ SECTION-PROFILE PROJECTOR permits inspection of turbine blade sections and the like. Two mercury-vapor lamps illuminate the two sides of the blade with a bright line of light. The line of light is viewed by two lens systems. The blade section contour appears on the screen as a dark image outlined by a bright band of light. The projector will inspect work up to 16 in. long, with 2¼-in. chord and 45 deg or more twist. Dimensions can be measured to ± 0.0005 in. and twist to ± 5 min. (Eastman Kodak Co., Dept. 657)

■ HIGH-SPEED CAMERA operates at an upper rate of 25,000 16-mm frames/sec. Framing rate is indicated continually on a built-in meter. Exposure times are adjustable between 1 and 5 μsec, and total writing time is 9 msec at the maximum rated speed. The camera measures 12 in. in diameter by 10 in. long. Weight is 28 lb. (Beckman & Whitley, Inc., Dept. 637)

■ TRITIATED TARGET consists of a titanium coating approximately 0.7 μ thick containing 1 c of tritium per square inch. The films are on 2-mill thick stainless steel or molybdenum. The material produces ion currents greater than 10^{-7} amp/in.^{2} in air. Absolute desorption rate is less than 0.1 μc/c day. (Radiation Research Corp., Dept. 638)

■ CLOCK MOTOR for d-c operation provides accuracy of 1 in 20,000 in a 24-hour period. Instantaneous speed is accurate to 1 in 3600. Power input is approximately 900 μw. Power is supplied from mercury batteries which will operate the motor for more than 1 year. The output shaft rotates at 2.4 rev/min. Operating temperature range is 20° to 110°F. (Park Products Co., Inc., Dept. 654)

■ NEUTRON GENERATOR is a portable, self-contained unit in which neutrons are produced by the D-T reaction at a controlled rate up to a maximum of 10^8 per second. Essentially monoenergetic 14-Mev neutrons are produced. Components of the equipment are a neutron source tube, power supplies, and a control unit. The source tube is a small accelerator tube connected by a 16-ft cable to the high-voltage supply. Maximum ambient temperature is 35°C. Power requirement is 115 v, 60 cy/sec, 5 amp. (Schlumberger Well Surveying Corporation, Dept. 650)

■ AUTOMATIC ANALYZER performs automatically each step of a chemical analysis usually performed manually. Steps such as measuring, mixing, purifying, processing, comparing, and recording are integrated into a continuous flow system. The system is capable of single- or multiple-component determinations including cyanides, sulfur dioxide, silica, phosphates, iron, chlorides, copper sulfate, ammonia, sugar, and aluminum. Traces down to parts per 10^9 are said to be determined with accuracy ± 1 percent. (Technicon Controls Inc., Dept. 658)

JOSHUA STERN
National Bureau of Standards, Washington, D.C.

(Continued from page 438)

sponsible for German war policy. These men expected an early decision of the war, even in 1942, and any major project which did not promise quick returns was specifically forbidden. To obtain the necessary support, the experts would have been obliged to promise early results, knowing that these promises could not be kept. Faced with this situation, the experts did not attempt to advocate with the supreme command a great industrial effort for the production of atomic bombs.

"From the very beginning, German physicists had consciously striven to keep control of the project, and had used their influence as experts to direct the work into the channels which have been mapped in the foregoing report. In the upshot they were spared the decision as to whether or not they should aim at producing atomic bombs. The circumstances shaping policy in the critical year of 1942 guided their work automatically towards the problem of the utilization of nuclear energy in prime movers."

In view of these excerpts, Jungk's representation of a humanitarian reluctance of German physicists to develop nuclear weapons appears to be an afterthought.

WILLIAM G. SCHLECHT
1851 Columbia Road, NW, Washington, D.C.

Federal Recruiting of Research Scientists

The news article "Young research workers sought for Washington area laboratories" [*Science* **128**, 1614 (1958)] stated that because of the great "need for productive and creative research personnel" the Civil Service Commission is seeking "more than 200 of the country's most capable young men and women." Although not explicitly stated in the article, it is clear from the Civil Service grades involved that this search is designed to attract those holding a bachelor's degree.

Because I do not feel that the bachelor's degree offers sufficient preparation for these capable people to make the best use of their talents in scientific research, I believe that it would be better both for the young people involved and for our nation if the "country's most capable young men and women" were to engage in full-time graduate study before accepting career employment in research. Surely these highly talented people can obtain scholarship and other financial assistance, if needed, to enable them to continue their studies.

In the past, the Federal Government has often hired research scientists by methods which have proven successful for hiring clerk-typists. The results from these methods have not always been satisfactory, so now, in the guise of "a new approach," research scientists are to be recruited by methods ("Research Scientist Examination") which have proven successful for hiring administrators ("Management Internship Examination"). Although this is indeed a step forward, it is still apparent that the Civil Service Commission does not recognize the need to hire research scientists by methods tailored to the specific problems involved.

The normal time to start a professional career in government service is after the award of the bachelor's degree. Apparently the Civil Service Commission feels that the start of a research scientist's career in the Government should also be at the bachelor-degree level and has planned its recruiting program accordingly. Clearly, it is not understood by the Civil Service Commission that a longer period of academic training is normally required by high-quality research scientists than by managers and administrators.

I suggest that "a new approach to the problem of recruiting . . . productive and creative research personnel" would be for the Civil Service Commission to actively seek to identify and attract into government employment the more promising young men and women who have recently received their advanced degrees, especially at the Ph.D. level.

ARNOLD PROSTAK
Ann Arbor, Michigan

BARNSTEAD

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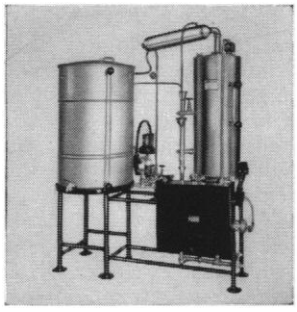

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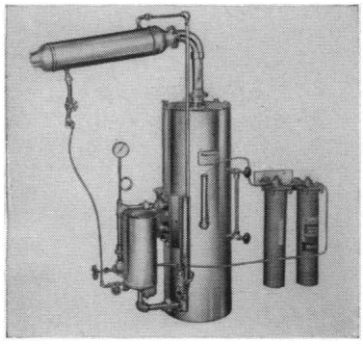

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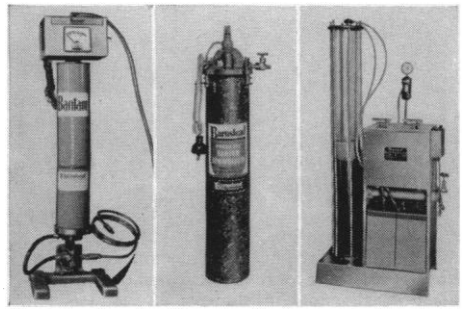

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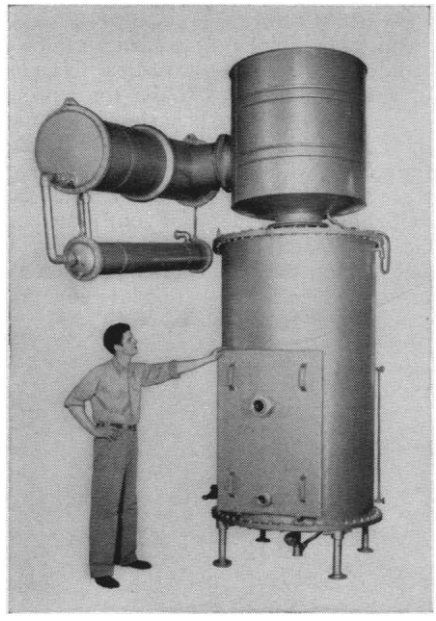

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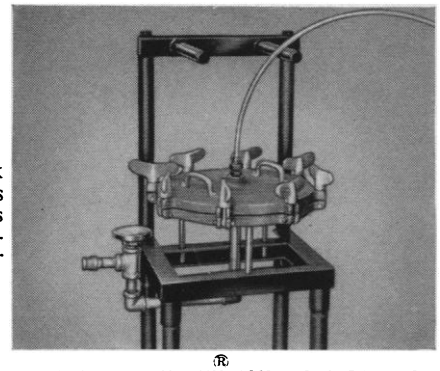

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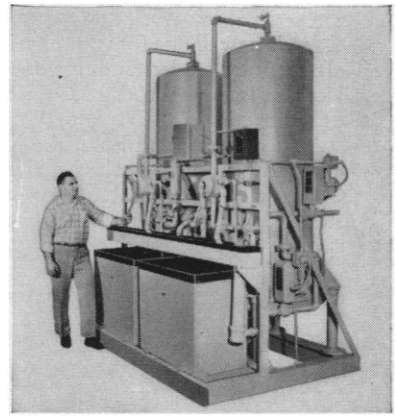

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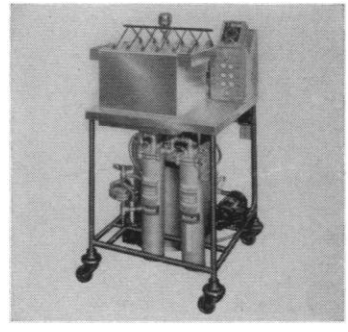

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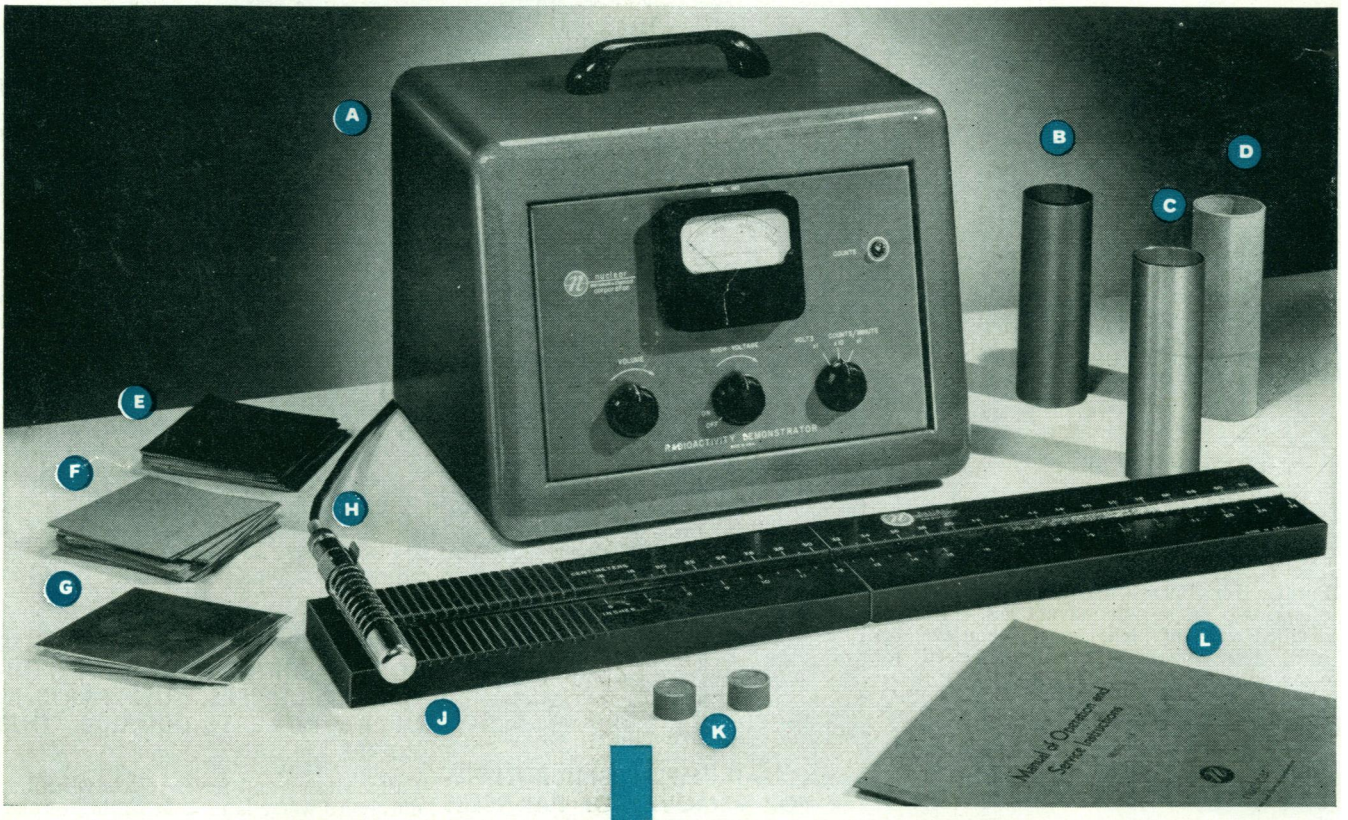

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