

334. Fessenden, R.: *Deluged Civ.*, 1923, pp. 123-5 on his "pheroscope"; and pat. 1105881, Dec. 19, 1906.
336. Klemin, Alex.: Classification of Helicopter Systems; *Sci. Am.*, January 1930, p. 72.
337. Gilfillan, N 147, pp. 240-5.
338. By Plessner, N 333, in 1892, Jn. B. Flowers' machine was described in *Sci. Am.* 114:174, 1916. Fessenden's pat, application 338078, Feb. 18, 1907, is cited in his *Deluged Civ.*, N 334, p. 134; the pat. apparently never issued. The machine traced a cursive line, which could be read if one's language were suitably modified.
339. Davis, E. E.: Ears for Computers; Audrey (which stands for Automatic Digit Recognizer) can "hear" 10 numbers and 16 of the basic sounds in English; *Sci. Am.* 192:92-8, February 1955.
340. Dr. Jean Dreyfus-Graf, June 1, 1950, reporting at MIT; Dr. Hideo Seki of the radio wave research inst. of the Japanese postal ministry, Aug. 7, 1952, acc. to AP; and M. V. Kalfaian, U.S. pat. 2673893. Cf. also Computer Taught To Hear; *Sci. N. L.* 73:311, 1958; a product of MIT and Haskins Labs. Cf. Discrimination of Speech Sounds; *Jol. of Experimental Psy.* 54:358-68, 1957.
341. Northeastern University, Lincoln Laboratories, and IBM.
342. *Sci. Am.* 109:163, 243, 352 (1913). Cf. *Soc. of Inv.*, N 49, p. 96.
343. *Soc. of Inv.*, N 49, p. 96, using the author's work for W. F. Ogburn: The Influence of Inv. and Discovery, chap. 3 of Ogburn ed.: *Recent Soc. Trends*, 2 vols., 1933.
344. *Soc. of Inv.*, N 49, p. 95.
345. Borkin, Jos., & Waldrop, F. C.: *Television*, a Struggle for Power, 1938, p. 38.
346. Fessenden, N 334, and his biog. by his wife, and M. W. Sterns: In Memoriam; R. A. Fessenden; *Radio N.* 14:334,5.
347. *Inventing the Ship*, N 147, pp. 91ff.
350. Cf. Renbert & Prescott's pat. 7631, of 1850, which may not be the first.
351. *Sci. News Letter*, 75:186,7, 1959, and Post Office release of Oct. 12, 1959, mentioning exhibit of a machine that reads and sorts typewritten addressed envelopes.
352. By Alex. Bain, a Scot. Hist. in chapter 1 of the Chas. R. Jones: *Facsimile*, 1949. Brit. pat. 9745, in 1843. Amstutz U.S. pat. 1019403.
353. According to a boast of Gen. Sarnoff, quoted by J. Walker: *Facsimile Much Faster, but Slow To Catch on*; *Edr. & Pub.* 84:48, Mar. 17, 1961.
354. Pat. 2909600; *N.Y. Times*, Oct. 24, 1959.
355. Pierce, E. H.: A Colossal Experiment in "Just Intonation"; *Mus. Q.* 10: 326-32, 1924.
358. Cooper, F. S.: Guidance Devices for the Blind; *Physics Today* 3:6-14, July 1950.
- The Experiments of Wever & Bray, e.g. using a cat's ear as a microphone, are described in *Our Hist.*, June 1930, p. 542.
359. Meier, R. L.: *Science & Econ. Development*; New Patterns of Living. 1956, 266 pp. But MHD, Magnetohydrodynamics, is approaching practicality in corporate hands.
360. *Sci. News Letter*, July 5, 1958, p. 15, tells of GE's Volney reaching 30% efficiency.
- Wall St. Jol.*, July 7, 1958.
361. Jenkins, D. S.: Devmts. in Saline Water Conversion; *Jol. Am. Waterworks Assn.* 49: 1007-19, 1957.
362. Linington, R. E.: The Application of Geophysics to Archaeology; *Amer. Scientist* 51: 48-70, 1963.
363. Predictions by various scientists, esp. R. N. Shreve on salt marshes, C. C. Furnas on synthetic food, A. V. Grosse on atomic energy, etc. are pub. in *Chem. & Engg. N* 29:II: 3274,5, Aug. 13, 1951.
364. *Newsweek*, 5: 35, Apr. 13, 1935, and 5: 3, May 11, 1935.
365. *Sci. Am.* 193: 50-2, October 1955.
366. Huntington, Ellsworth: *Mainsprings of Civilization*, 1945; and his Climatic Pulsations and an Ozone Hypothesis of Libraries and History: in Univ. of Pa.: *Conservation of Renewable Natural Resources*, pp. 99-147, 1941. *Sci. News Letter* 75: 185, 1959.