

Accurate weighings in less than thirty seconds

METTLER BALANCES

including

SEMIMICRO

and

MICRO

- RAPID WEIGHING—by dialing built-in weights
- CONSTANT SENSITIVITY
- DIRECT READING
- SINGLE PAN
- SAPPHIRE KNIFE EDGES and PLANES

ANALYTICAL BALANCES, Mettler. Single pan, direct reading, rapid weighing, accurate Balances with built-in Stainless steel weights operated by dials on the front panel which also contains the cumulative weight register and wide range optical scale.

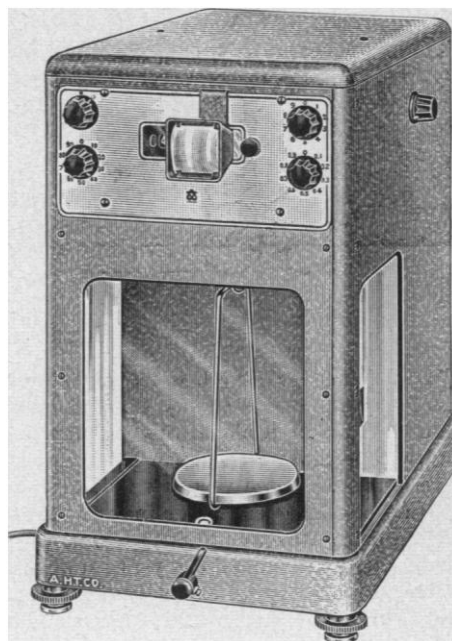
Operate on the principle of weighing by substitution on a single pan with beam subject to constant load throughout the entire range, which method has been recognized as being highly accurate. Operation is simple and weighings can be completed in less than 30 seconds. Total weight is read directly from indicator on front panel. Sensitivity is constant throughout the weighing range.

Made in Switzerland and in satisfactory use throughout the world for the past eight years. Now assembled—with the exception of the Micro model—and serviced in maker's U.S.A. branch. The specially engineered packing includes all tools necessary for installation.

Case—Of aluminum alloy, finished in green Hammer-tone, with weighing compartment $9\frac{1}{4}$ inches wide x 7 inches deep x $8\frac{1}{2}$ inches high. Model M-5 is finished in white enamel and furnished with a front radiation shield.

Weights—Of non-magnetic Stainless steel, corrosion resistant. Adjusted within the tolerances established by U.S. National Bureau of Standards.

Knife Edges and Planes—Of synthetic sapphire, impervious to moisture.



1888-C.

Gimbal Stirrup—Sapphire and agate bearings and pivots of Stainless steel. Compensates for off-center loading.

Weight Controls—Knobs on front panel automatically manipulate all weights. Total is indicated cumulatively on register.

Direct Reading—Total weight is read directly from the register and projected optical scale.

1867-J. Balance, Analytical, Mettler B-5, as above described, capacity 200 grams, accuracy ± 0.1 mg; finished in green Hammer-tone; clearance above pan $6\frac{1}{2}$ inches. With air damper and transformer for 110, 125, 145 or 220 volts, 50 or 60 cycles a.c., but without magnifier-light shield .. 895.00

1888-C. Balance, Semimicro, Mettler B-6, similar to 1867-J but with capacity 100 grams, accuracy within optical range ± 0.02 mg, accuracy of entire set of weights ± 0.1 mg, and with magnifier-light shield as shown in illustration 995.00

1888-M. Balance, Microchemical, Mettler M-5, similar to above but with capacity 20 grams, accuracy within optical range ± 0.002 mg, accuracy of entire set of weights ± 0.02 mg; finished in white enamel; clearance above pan $4\frac{1}{4}$ inches; and with front radiation shield and magnifier-light shield 1,150.00

More detailed information sent upon request.



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Books Reviewed in THE SCIENTIFIC MONTHLY

February

- Advances in Genetics*, vol. IV, M. Demerec, Ed. (Academic Press). Reviewed by K. C. Atwood.
- Tomorrow Is Already Here*, E. Jungk (Simon & Schuster). Reviewed by Conway Zirkle.
- Minerals for Atomic Energy*, R. D. Nininger (Van Nostrand). Reviewed by G. W. Brindley.
- America's Resources of Specialized Talent*. Report of the Commission on Human Resources and Advanced Training; Dael Wolfe, director (Harper). Reviewed by Ralph W. Tyler.
- The Causes and Treatment of Backwardness*, C. Burt (Philosophical Library). Reviewed by Karl F. Heiser.
- The First Australians*, R. M. Berndt and Catherine H. Berndt (Philosophical Library). Reviewed by C. W. M. Hart.
- Geographical Essays*, W. M. Davis; D. W. Johnson, Ed. (Dover). Reviewed by William A. Hance.
- The Giant Cactus Forest and Its World*, P. G. Howe Duell, Sloan, and Pearce; Little, Brown). Reviewed by Mortimer L. Bloom.
- General College Chemistry*, A. J. Scarlett and J. Gómez-Ibáñez (Holt). Reviewed by John A. Timm.
- The Anatomy of the Migratory Locust*, F. O. Albrecht (Athlone; de Graff). Reviewed by Neal A. Weber.
- Ancient History of Western Asia, India and Crete* B. Hrozný (Philosophical Library). Reviewed by Francis L. K. Hsu.
- Irrigated Soils*, D. W. Thorne and H. B. Peterson (Blakiston, ed. 2). Reviewed by Firman E. Bear.
- Narcotics and Narcotic Addiction*, D. W. Maurer and V. H. Vogel (Thomas). Reviewed by Jerome L. Leon.
- Fluoridation as a Public Health Measure*, J. H. Shaw, Ed. (AAAS). Reviewed by J. F. Volker.
- Student Personnel Work as Deeper Teaching*, E. Lloyd-Jones and M. R. Smith, Eds. (Harper). Reviewed by Louise Price.
- Living Crafts*, G. B. Hughes (Philosophical Library).

New Books

- Actions of Radiations on Living Cells*. The late D. E. Lea. Cambridge Univ. Press, New York, ed. 2, 1955. 416 pp. \$6.
- Charles Darwin*. Great Lives in Brief Ser. Ruth Moore. Knopf, New York, 1955. 206 pp. \$2.50.
- From Early Times to Fall of Ancient Empires*. vol. I of *A History of Technology*. Charles Singer, E. J. Holmyard, and A. R. Hall, Eds. Oxford Univ. Press, London-New York, 1954. 827 pp. \$23.55.
- The Why of Chemistry Problems*. Fred B. Eiseman, Jr. Educational Pub., St. Louis, 1954. 303 pp. \$4.50.
- Genetica Medica*. Ium Symposium Internationale Geneticae Medicae, 6-7 Sept. 1953. Luigi Gedda, Ed. Edizioni dell'Istituto Gregorio Mendel, Rome, 1954. 467 pp. L. 5000.
- Glass Reinforced Plastics*. Phillip Morgan, Ed. Iliffe, London; Philosophical Library, New York, 1954. 248 pp. \$10.
- Science and Man's Hope*. James Street Fulton. Bookman Assoc. New York, 1955 (For Rice Inst.). 179 pp. \$3.25.

- Healthier Living*. Justus J. Schifferes. Wiley, New York; Chapman & Hall, London, 1954. 928 pp. School ed., \$5.75; trade ed., \$6.75.
- How to Know the Fresh-Water Algae*. G. W. Prescott. Pictured-Key Nature Ser. H. E. Jaques, Ed. Brown, Dubuque, Ia., 1954. 211 pp. Spiral, \$2; cloth, \$2.75.
- An Introduction to Etruscan Art*. P. J. Riis. Philosophical Library, New York; Munksgaard, Copenhagen, 1954. 144 pp. Plates. \$10.
- La Cybernétique*. Du cerveau humain aux cerveaux artificiels. Collection, Evolution des Sciences. Paul Cossa. Masson, Paris, 1955. 98 pp. Paper, F. 525.
- Operations Research for Management*. Joseph F. McCloskey and Florence N. Trefethen, Eds. Johns Hopkins Press, Baltimore, 1954. 409 pp. \$7.50.
- Organic Reactions*. vol. VIII. Roger Adams, Ed. Wiley, New York; Chapman & Hall, London, 1954. 437 pp. \$12.
- The Passenger Pigeon*. Its natural history and extinction. A. W. Schorger. Univ. of Wisconsin Press, Madison, 1955. 424 pp. \$7.50.
- Sponsored Research Policy of Colleges and Universities*. A report of the Committee on Institutional Research Policy. American Council on Education, Washington, 1954. 95 pp. \$1.50.
- The Theory of Cohesion*. M. A. Jawson, vol. 2 of *Metal Physics and Physical Metallurgy*, G. V. Raynor, Ed. Interscience, New York; Pergamon, London, 1954. 245 pp. \$5.75.
- Annual Review of Nuclear Science*. vol. 4. James G. Beckerley, Martin D. Kamen, and Leonard I. Schiff, Eds. Annual Reviews, Stanford, Calif., 1954. 483 pp. \$7.
- Sonics*. Techniques for the use of sound and ultrasound in engineering and science. Theodor F. Hueter and Richard H. Bolt. Wiley, New York; Chapman & Hall, London, 1955. 456 pp. \$10.
- Recent Civil Engineering Works in Japan*. Japan Society of Civil Engineers, Tokyo, 1954. 226 pp.
- A Manual of the Dragonflies of North America (Anisoptera)*. Including the Greater Antilles and the provinces of the Mexican border. James G. Needham and Minter J. Westfall, Jr. Univ. of Calif. Press, Berkeley 4, 1955. 615 pp. \$12.50.
- Chemical Calculations*. H. V. Anderson. McGraw-Hill, New York-London, ed. 6, 1955. 305 pp. \$4.75.
- 50 Jahre Arzneimittel-Forschung*. C. L. Lautenschlager. Thieme, Stuttgart, Germany, 1955 (Order from Intercontinental Medical Book, New York 16). 486 pp. \$8.60.
- Psychological Statistics*. Quinn McNemar. Wiley, New York and Chapman & Hall, London, ed. 2, 1955. 408 pp. \$6.
- Television for Radiomen*. Edward M. Noll. Macmillan, New York, rev. ed., 1955. 778 pp. \$10.
- Concise Dictionary of Ancient History*. P. G. Woodcock. Philosophical Library, New York, 1955. 465 pp. \$6.
- Man and the Vertebrates*. vols. I and II. Alfred Sherwood Romer. Penguin Books, Baltimore 11, 1955. 437 pp. \$0.85 each.
- Fishes of the Western North Atlantic*. Sawfishes, guitarfishes, skates, rays and chimaeroids. Mem. I, pt. 2. Henry B. Bigelow and William C. Schroeder. Sears Foundation for Marine Research, Yale Univ., New Haven, Conn., 1953. 588 pp. \$15.
- A Short Textbook of Colloid Chemistry*. B. Jirgensons and M. E. Straumanis. Wiley, New York; Pergamon, London, 1954. 420 pp. \$8.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to *Science*, but to the publisher or agency sponsoring the publication.)

Readings in Game Theory and Political Behavior. SSPS 9. Martin Shubik. Doubleday, Garden City, N.Y., 1954. 74 pp. 95¢.

A Report for 1952-54. Fund for the Advancement of Education, 655 Madison Ave., New York 21, 1954. 126 pp.

Annual Report, 1953-1954. Rensselaer Polytechnic Inst., Troy, N.Y., 1954. 42 pp.

Projects in Metal for the Home and School Shop. James F. Lincoln Arc Welding Foundation, Cleveland 17, 1954. 80 pp. 50¢.

Bathypelagic Nemerteans of the Pacific Ocean. Wesley R. Coe. Univ. of Calif. Press, Berkeley 4, 1954. 61 pp. 75¢.

Expedition to South-West Arabia, 1937-38. vol. I, Nos. 20-24. British Museum (Natural History), London, 1954. 43 pp. 7s. 6d.

Effect of Body Feed on the Filtration of Water Through Diatomite. Engineering Expt. Sta. Bull. No. 425. Harold E. Babbitt and E. Robert Baumann. Univ. of Illinois, Urbana, 1954. 40 pp. 80¢.

Lobotomy — A Clinical Study. Monograph No. 1. A. Miller. Ontario Dept. of Health, Toronto, 1954. 107 pp.

Combustion and Smog. The relation of combustion processes to Los Angeles smog. Report No. 2. W. L. Faith. Southern California Air Pollution Foundation, Los Angeles, 1954. 63 pp. \$3.

Studies of Soil Fauna with Special Reference to the Collembola. Bull. 583. Peter F. Bellinger. Connecticut Agricultural Expt. Sta., New Haven, 1954. 67 pp.

Pioneer and Pacemaker. The story of Firestone. Firestone Tire & Rubber Co., Akron, Ohio, 1954. 63 pp.

Harvard School of Public Health Annual Report, 1952-1953. Harvard Univ., Cambridge, Mass., 1954. 233 pp.

Ion Exchange. Chemical Engineering Progress Symposium Ser., vol. 50, No. 14. F. J. Van Antwerpen, Ed. American Inst. of Chemical Engineers, New York 36, 1954. 121 pp.

Interrelations of Demographic, Economic, and Social Problems in Selected Underdeveloped Areas. Proceedings of a round table at the 1953 annual conference. Milbank Memorial Fund, New York, 1954. 200 pp.

An Electronic Wave Spectrum Analyzer and Its Use in Engineering Problems. Tech. Memo. No. 56. Willard J. Pierson, Jr. Beach Erosion Bd., Corps of Engineers, Dept. of the Army, Washington 25, 1954. 91 pp.

Four Year Report, 1950-53. New York Foundation, New York, 1954. 48 pp.

Phenological Behavior of a Few Forest Species at New Forest, Dehra Dun. Indian Forest Records, vol. 9, No. 2. V. S. Krishnaswamy and G. S. Mathauda. Manager of Publications, Delhi, India, 1954. 45 pp. 4s.

Electrical and Electronic Apparatus. Patent Abstract Ser., No. 5. Prepared by Govt. Patents Bd. Dept. of Commerce and Small Business Administration, Washington 25, 1954 (Order No. 111468 from Office of Tech. Services, Dept. of Commerce, Washington 25). 160 pp. \$4.

Education Associations. Education directory, part 4, 1953-54. Prepared by Margaret M. Butler. Dept. of Health, Education, and Welfare, Washington 25, 1954 (Order from Supt. of Documents, GPO Washington 25). 54 pp. 30¢.

Sixth Annual Report: 1953-54. For the year ending 30 June 1954. Commonwealth Scientific and Industrial Research Organization, Melbourne, Australia, 1954.

Resumen de Cartografía Semántica. Gregorio D. Martínez Cabré. Publicaciones Argentinas de Geografía Científica, Buenos Aires, 1954. 51 pp.

Annual Report, 1953-54. Comprising the reports of the president, secretary, comptroller, and other administrative officers. Bull., vol. 63, No. 4. California Inst. of Technology, Pasadena, 1954. 155 pp.

Design of Animal Houses. Collected papers, vol. 2. Lab. Animals Bureau, Hampstead, London N.W.3, 1954. 75 pp. 7s. 6d.

Symposium: Some Biological Effects of Radiation from Nuclear Detonations. Biology Div., Oak Ridge Natl. Lab., Oak Ridge, Tenn., 1954. 105 pp.

Invertebrate Animals Other than Insects. Instructions for Collectors No. 9A. British Museum (Natural History), London S.W.7, 1954. 76 pp. 3s. 6d.

The Anatomy of Personality. DPP 11. Donald K. Adams. Doubleday, Garden City, N.Y., 1954. 44 pp. 85¢.

Foundations of Biology. Foundations of the unity of science, vol. 1, No. 9. Felix Mainx. Univ. of Chicago Press, Chicago 37, 1955. 86 pp. \$2.

Highway-User Taxation. Highway Research Bd., Bull. 92. Natl. Acad. of Sciences-Natl. Research Council, Washington 25, 1954. 48 pp. 75¢.

Geology and Mineral Deposits of Barstow Quadrangle, San Bernardino County, California. Oliver E. Bowen, Jr. **Thermal Properties of Ceramic Materials from Barstow Quadrangle, California.** Joseph A. Pask and Oliver E. Bowen, Jr. Bull. 165. Div. of Mines, Dept. of Natural Resources, San Francisco 11, 1954. 208 pp.

Largemouth Bass in Ridge Lake, Coles County, Illinois. Bull., vol. 26, art. 2. George W. Bennett. Illinois Natural History Survey Div., Urbana, 1954. 60 pp.

Adrenal Function in Infants and Children. Symposium held 3-4 Nov. 1954. Lytt I. Gardner, Ed. Dept. of Pediatrics, State Univ. of New York, Syracuse 10, 1954. 112 pp. \$1.

Fifteenth Annual Report of the Council, July 1952-June 1953. Inst. of Medical and Veterinary Science, Adelaide, Australia. 111 pp.

Su Contribucion Editorial, Científica y de Cultura. Instituto Nacional de Antropología e Historia, Mexico, D.F., 1954. 89 pp.

Sources of Eddington's Philosophy. Herbert Dingle. Cambridge Univ. Press, New York 22, 1954. 64 pp. 75¢.

On Some Questions Connected with Mathematical Risk. Pubs. in Statistics, vol. 2, No. 5. Harald Cramér. Univ. of California Press, Berkeley, 1954. 25 pp. 35¢.

Revision of the Genus Cheirodendron Nutt. ex Seem. for the Hawaiian Islands. Fieldiana: botany, vol. 29, No. 1. Earl Edward Sherff. Chicago Natural History Museum, Chicago, 1954. 45 pp. 75¢.

Report of the Thirty-ninth National Conference on Weights and Measures, 1954. Misc. Publ. 212. Natl. Bureau of Standards, Washington 25, 1954 (Order from Supt. of Documents, GPO, Washington 25). 108 pp. 50¢.

Bilharzia Snail Vector Identification and Classification (Equatorial and South Africa). Tech. Rpt. Ser., No. 90. Report of a study group. World Health Organization, Geneva, 1954 (Order from Columbia Univ. Press, New York 27). 22 pp. 25¢.

Nineteen Bogs from Southern Quebec. Bull. No. 9. John E. Potzger. Service de Biogéographie, Univ. of Montreal, Montreal 26, Canada, 1953. 18 pp.