

Do You Know?

A six-ounce 36-volt storage battery is used in walkie-talkies.

Dyed, tanned rat tails for wrist-watch straps are reported in Balkan markets; they are made in Germany.

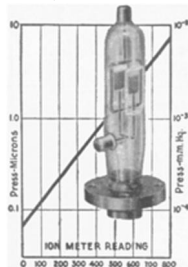
Approximately 7,000,000,000 bushels of rice are produced annually throughout the world.

The first drilled oil well in the world was completed in 1859, near Titusville, Pa.

The kingfish, caught off the coasts of Florida, is a fine-flavored fish weighing usually from 15 to 30 pounds, but sometimes as much as 75 pounds; it often leaps as much as 10 feet out of the water.

A fungus that traps and destroys insects has been discovered; it is a microscopic soil-inhabiting fungus, technically *Arthrobotrys entomophaga*, that catches springtails, insects that jump by means of springy near-end spines.

HIGH VACUUM GAUGES



IONIZATION GAUGE COLD CATHODE TYPE

Measures high vacuums with galvanometer down to 10⁻⁴ mm. Hg. in electron microscopes and other high vacuum apparatus. Utilizes discharge current between electrodes in magnetic field. Extremely sensitive and accurate.

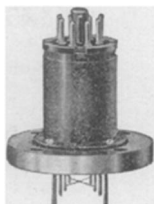
The Universal line includes two types of vacuum gauges of special interest to users of electron microscopes—the Universal highly sensitive cold cathode ionization gauge and the rugged Universal thermocouple gauge.

Both gauges are standard equipment on R.C.A. electron microscopes—and can be supplied for other high vacuum work.

Universal offers a complete production service in special glass and tube work—including metal-to-glass seals of all types and sizes. Your problems will receive our immediate and courteous consideration.

THERMOCOUPLE GAUGE

Measures low pressure levels with millivoltmeter which indicates variation in thermocouple voltage due to changes in vacuum. Ideal for systems requiring rapid verification of high vacuums. Heater and instrument terminals fit standard 8-prong tube socket.



UNIVERSAL X-RAY PRODUCTS INC.
1800-H N. FRANCISCO AVE., CHICAGO 47, ILL.

BIOLOGY

Normal Foot Lengths

► THE HUMAN foot seldom reaches the proverbial 12 inches in length.

Although the record for big feet for normal adults is 12.4 inches (for a Negro man) and for the smallest feet is 7.6 inches (for an Indian woman), the average foot length for white men is 10.3 inches, Dr. Howard V. Meredith of the Iowa Child Welfare Research Station, University of Iowa, reports in *Human Biology*, (December).

Adult Negroes have longer feet than whites, and American Indians have shorter feet. A foot 10.7 inches long is normal for Negro men, 9.9 inches for male American Indians. The foot length of women for the various races averages 9.7 inches, 9.3 inches (for whites) and 9.0 inches respectively.

Women attending college a half century ago had smaller feet than women students today, their feet averaging 9.2 inches as compared with the present length of 9.4 inches. Likewise the feet of men in college from 1880 to 1910 were, on the average, two inches shorter than they were for the period 1920 to 1940.

The growth of a human foot slows greatly from the period before birth to early adulthood. Foot length doubles in one month during the fourth month before birth, but it takes nine months to double its length three months before birth. It takes four years to double the length it is at birth and eight years to double the length it is at six months. It is 18 years before a boy's foot is twice as long as it is when he is a year and a half old, Dr. Meredith found.

All of the information on human foot length for inhabitants of North and Central America currently accessible, including data from seven previously unpublished studies, were assembled by Dr. Meredith in an attempt to answer questions popularly asked about the development of the human foot.

While the average woman has shorter feet than the average man, at all ages from infancy to adolescence a woman's foot is nearer adult size than is a man's. At birth, white females have attained approximately 34% of their foot length at maturity, white males only 31%. At ten years of age girls have attained 90% of their eventual foot growth, boys only 82%.

Individual differences in foot length do not exceed half an inch during the several months preceding birth, and dur-

ing the first year after birth they do not exceed one inch. The length of feet of ten-year-old children normally vary about two inches, and in adulthood feet may vary three inches in length.

The human foot may be identified without a microscope between five and six weeks following fertilization, although at that period the feet still lie approximately along the same axes as the shafts of the legs and there is no heel contour, Dr. Meredith states. By eight weeks individual toes are visible and the contour of the heel is indicated. At birth, baby boys have feet 3.2 inches long, and the feet of baby girls are about 3.1 inches.

Science News Letter, March 3, 1945

The syrup made from sweet sorghum contains twice as much iron as sugar cane molasses.

Facts ABOUT



BLOOD PLASMA

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