

VITAL STATISTICS

Death Rate Levels Off

► IT LOOKS as though the death rate, which dropped in the U.S. by more than 40% in the first half of the 20th century, may have reached an irreducible minimum.

Dr. Iwao M. Moriyama, chief of the Office of Health Statistics Analysis, National Center for Health Statistics, U.S. Public Health Service, said in Public Health Reports (Dec.) that there is no clearcut explanation for the leveling-off process.

However, since 1954 there has been a leveling off with "even a hint of a slight upturn."

The change is more marked in ages up to 45, but even in the older age group up to 75 years, there is a tendency for the death rates to level off or to increase slightly.

The change in death rate is not limited to the United States. Similar leveling off has occurred in the Scandinavian countries, the Netherlands, England, Wales, Czechoslovakia and "probably" in East and West Germany.

The overall, or crude, death rates for Japan, New Zealand, Chile, Argentina, Venezuela, and "possibly" Uruguay are also definitely leveling off, Dr. Moriyama said,

CHEMISTRY

Material for Power-Free Magnet Mass-Produced

► DEVELOPMENT of a "simple chemical method" for mass-producing a material used in superconductive magnets requiring no power to operate has been announced by Radio Corporation of America, New York.

The material is crystalline niobium-tin, which loses its electrical resistance at extremely low temperatures and seemingly carries indefinitely a flow of current started by a small initial pulse.

The superconductive properties of niobium-tin wire have been known for some time, but this is the first process to be developed that permits quantity production. Magnets made of this material can now be used widely "to generate enormous magnetic fields" in nuclear research machines, the company claims.

• Science News Letter, 80:435 December 30, 1961

but there is no change evident in mortality data for Australia. In Canada only the age-adjusted death rates are showing a changing trend.

In the U.S. there have been a number of temporary reversals in the past 20 years but none has lasted as long as the recent change. It is estimated that if the downward trend of 1937-53 had continued (it dropped almost twice as fast as during the preceding period), about 300,000 lives would have been saved during the past five years.

"Unless there is marked decline in mortality," Dr. Moriyama pointed out, "there will be an excess of over 100,000 deaths in

MEDICINE

Cancer Weapon Seen In Auto-Immunity

► A BUILT-IN MECHANISM that might be directed against cancer was reported by Dr. Jerome W. Conn of the University of Michigan, Ann Arbor.

Dr. Conn illustrated with an over-simplified version of what he said was a complex mechanism.

It is conceivable that a low-grade chronic inflammatory disease of the liver could be perpetuated by auto-immune response, even though the initially injurious factor has long since disappeared, he said.

This example is characteristic of a number of chronic inflammatory diseases now thought to exist on some such basis. These are the diseases whose inflammatory manifestations are suppressed by cortisone and cortisone-like compounds.

Such compounds are known to act by blocking the union of the offending substances and its specific antibody. Here, then, is a built-in mechanism that is so good under some circumstances that it can lead to self-destruction.

"It is recognized that there may be useful seed here," Dr. Conn said, "for this mechanism might be directed toward the destruction of undesirable tissue such as cancer. This possibility is being examined in a number of laboratories."

• Science News Letter, 80:435 December 30, 1961

1961 alone over what might have been experienced had the 1937-53 trend continued."

Important social and economic significance is foreseen as a consequence of the changing general death rate, and further study will be made in an effort to explain the change.

"The consistency in pattern by age, sex, and color, as well as its replication in different geographic areas, suggests a common underlying cause for the changing death rates," Dr. Moriyama said.

• Science News Letter, 80:435 December 30, 1961

Trap Your Own Rainbow PRISM \$8.00 p.p.

Brilliant water-white crystal—45°-90°-45°. Faces flat to highest tolerances.
Wt. 10 oz. Size 3 1/2" x 2 1/4" x 1 1/4". of best optical glass.
Cost gov. no less than \$30.00. Until you have witnessed the glory of a spectrum (rainbow) cast by this prism with sunlight you have not been truly happy.



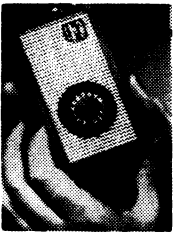
2 for \$12.00 p.p.

HARRY ROSS

Scientific & Lab Apparatus
61-L Reade St., N.Y. 7, N.Y.

Pocket Transistor Radio

Size of cigaret package, yet thrilling performance. Weighs 3 ounces. Listen while traveling, at ball game, in home or office or school. Includes phone for private listening. Modern two-tone moulded plastic case with gold metal grille. Complete broadcast band. On-off switch one end. Uses standard penlight cells (included). Guaranteed complete, ready for immediate playing. \$4.95 Postpaid. Only



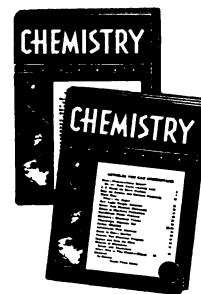
JOHNSON SMITH & CO.
Dept. 122, Detroit 7, Mich.

DAZZLE YOUR OPPONENTS WITH CHESS COMBINATIONS!

"Art of Chess Combination" by Znosko-Borovsky, only work teaching principles; acclaimed by champions and beginners alike. Basic ideas, how to interlock pieces, force occasions, etc. 233 pp. \$1.45, 10¢ postage. Money-back guarantee. Dept. SNL, DOVER, 180 Varick St., N. Y. 14, N. Y.

CHEMISTRY Magazine

for those interested in the why and how of the chemical world.



CHEMISTRY brings vital news—the meaning and facts about the latest developments in chemistry and related fields.

No intricate verbiage—written for easy reading and a clear understanding of the contemporary world of chemistry and allied sciences.

Published 8 times a year—by subscription only, \$4 per year.

12-61

SCIENCE SERVICE

1719 N St., N.W., Washington 6, D. C.

Please enter the following one-year subscription to CHEMISTRY. Remittance for \$4.00 is enclosed.

NAME _____

STREET _____

CITY _____

ZONE _____

STATE _____

ERRATA, Vol. 80, Nos. 1-27, July-December, 1961

PAGE	TITLE BEGINS	CORRECTIONS
14	Ultra-Modern Terminal	Title, line 2, and par. 1, line 4, ton for pound.
83	Dated at Man's Ancient	Col. 3, delete line 1. Par. 2, after resemble insert those of modern day primitive man in
114	Antipollution Bill	Delete last par.
319	Peaceful U. S.	Last par., line 5, operating for 3,000 for accelerating over a period of 3,000.
334	Monkeys Made	Line 4, read M. Blumberg, Colonel, M.C., U. S. Army.
368	New Antidote	Par. 3, line 2, insert period after methiodide); delete remainder of sentence. Lines 8 and 9, read the first ingestion case to be so treated in the U. S.