

ride. Dr. Gebbie is evolving a technique for Britain's gas diffusion plant at Capenhurst, measuring U-235 at low concentrations.

"We need," says Dr. Gebbie, "more high-grade thought for traditional engineering—the same order for a tunnel or bridge or pipeline as we employ today on a particle accelerator."

Last year he undertook what he calls a "somewhat lighthearted exercise" in redesigning the ordinary steel rule. His investigations showed the rules sold in Britain to be astonishingly primitive in concept, with a rich diversity of scales, often too fine to be practical—100ths—or of dubious value—12ths. Claims for accuracy that were patently superfluous—"calibrated at 20 degrees C"—were another incongruity.

The new NPL rule, now commercially available, is strikingly simpler to read and easier to use, with scales that convert from inch to metric and can be read from either end. A school version will be available in the fall, at about 20 cents. *DF*

FROM GENEVA

African Food Survey

Climate in the hot and semiarid sub-Saharan African region is favorable for food production throughout the year, according to a survey conducted for the World Meteorological Organization of the United Nations. The survey team says although agricultural development will depend on social and economic factors, agroclimatology studies are essential. Nor is enough known about yield and production and even records of "simple biological events" such as the dates of sowing, flowering and harvesting.

The team urges detailed observations at agricultural research stations in this summer-rain region, covering parts of Senegal, Mauritania, Mali, Upper Volta, Ghana, Togo, Dahomey, Niger, Nigeria, Cameroon and Chad.

The survey was conducted under collaboration of several U.N. agencies and follows a first one completed five years ago in the Middle East. It outlines the needs and tolerances of the main crops of these African countries: millet, sorghum, groundnut, cotton, maize and cowpea.

The groundnut is sensitive to a certain virus, the scientists point out, and the time of infection determines losses. Virus attack before the 40th day can totally destroy a crop. The scientists believe they can forecast the imminence of infection by the humidity. The disease is more prevalent in the wetter south. This can lead to more efficient spraying at the time of maximum exposure. *DAE*

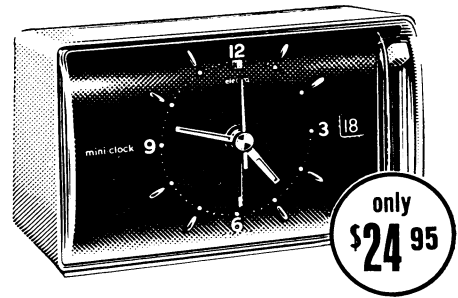
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They're the same people who don't mind living with "the approximate" time or walking into a Five-and-Dime every six months to buy another new \$8.95 wind-up tick-tock.

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THE CHANGING EARTH

By Judith Viorst of SCIENCE SERVICE

Introduction by Frank C. Whitmore, Jr., U. S. Geological Survey

Preface

The planet we live upon seems changeless and eternal, but it is neither. It was born some four or five billion years ago, and between that time and the present it has turned many very different faces to the sun. What is more, it continues to change even now, and will do so until it no longer spins in the sky.

This book describes the forces that mold the earth's changing face—water, wind, glaciers, vulcanism, diastrophism. It explains the making of our mountains and valleys and canyons, our beaches and caves and dunes, our waterfalls and geysers and springs. It also traces earth's history from its ambiguous beginnings through the shaping and reshaping of its continental features, telling—in rich detail—the awesome story of the evolution of life.

37 photographs and 30 drawings accompany the text, which is written for both the aspiring young geologist and anyone—of any age—curious about the planet on which he lives. The book abounds in facts about earth's past and present, but it also tempts the curious with the many unsolved questions that make geology a living, growing, ever-intriguing science.

By Watson Davis

Director 1933-1966, Science Service

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