

Do You Know?

Monosodium glutamate is a metallic salt of *glumatic acid* derived from grain; it is one of the world's most potent flavoring materials.

Freshly cut *fence posts* treated with chromated zinc chloride will last 10 to 15 years, in contrast to a life of two to four for untreated posts.

Glass fibers are used to reinforce *plastics* much as steel rods are employed to reinforce concrete.

All automobile paints used today, except black, contain *aluminum flakes* to give a special sheen.

PUBLIC HEALTH

Death Rate Down for "Catching Diseases"

► IN SPITE of this being a big measles year, the combined death rate for the four chief "catching" diseases of children, measles included, reached a new low during the first quarter of the year, statisticians of the Metropolitan Life Insurance Company report.

The death rate among the company's industrial policyholders for measles, scarlet fever, whooping cough and diphtheria combined was 1.6 per 100,000 for the first three months of the year. The rate for measles was only 0.6 per 100,000.

A "truly remarkable" record has been established for tuberculosis so far this year, also. The death rate from this disease for the first quarter of 1948 was 28.2 per 100,000 policyholders. This is 13% below the rate for the same three months last year and 25% below the average for the same parts of the preceding five years.

Science News Letter, May 29, 1948

Anyone Can Use A Slide Rule

No Math Background needed if You Have the *Practical Slide Rule Manual* by J. M. Klock, formerly Mathematician for the U. S. Navy and Instructor in the Detroit Public Evening Schools.

An absolutely non-technical explanation of how to use a slide rule for the fundamental math calculations. If you know the simplest arithmetic you can easily learn the slide rule with this booklet. Special applications made to formulae from mathematics, engineering, aeronautics, etc. Includes office applications to per cent, interest rates, cost accounting. Large illustrations. Simple explanations. Sent postpaid.

(Please make checks payable to J. M. Klock)

Send \$1.00 to: Slide Rule
Box 2293
Detroit 31, Michigan

PHYSICS

Five Kinds of Atom Bomb

But probably none is radically new, using the fissionable materials we already know about such as uranium, plutonium and elements from thorium.

► AMERICA now has five different kinds of atomic bombs, the most modern of which tested at Eniwetok are presumably both more powerful and cheaper.

That is the conclusion to be drawn from the terse, unrevealing announcement that "tests involving three atomic weapons each of improved design" were successful in all respects and that results indicate very substantial progress.

The new tests do not, in all probability, involve any radically new and novel bombs, such as the hydrogen-helium bomb or the meson bomb about which there has been some speculation.

The stuff in them is basically the fissionable materials that we have been told about, uranium, plutonium and possibly kinds of uranium or other heavy elements made from thorium.

The Hiroshima atomic bomb was

made of uranium 235 and the second bomb used on Nagasaki was made of plutonium, the synthetic element made in the atomic pile from the more common sort of uranium isotope 238. Similarly the new bombs are probably improved mixtures of fissionable elements or materials not used before.

Manufacture of bombs by new methods or further research upon new nuclear materials and methods is indicated by the portion of the statement that said "The President gave general approval of commission plans for steps it proposed to initiate at once for further nuclear development, based upon information gained from the tests."

This may even indicate a different emphasis to atomic materials manufacture such as carried on at Hanford, Wash.

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ASTRONOMY

Dedicate "Big Eye"

► THE 200-INCH telescope atop Palomar Mountain will officially begin work to extend man's reach twice as far into space following its dedication on June 3. About a thousand guests have been invited for the event.

This gigantic "eye" will put at our disposal eight times the volume of space previously available for study. Palomar Observatory will be run jointly by the California Institute of Technology to whom the telescope actually belongs, and the Carnegie Institution of Washington, which owns the Mt. Wilson Observatory.

Master of ceremonies for the dedication will be James R. Page, chairman of Cal Tech's Board of Trustees. Dr. Raymond B. Fosdick will speak for the Rockefeller Foundation that to date has given \$6,500,000 for the construction of the telescope, together with all the buildings and equipment necessary to render it as effective as possible.

Dr. Lee A. DuBridge, president of Cal Tech, will deliver the dedication address. Dr. Vannevar Bush, president of the Carnegie Institution of Washing-

ton, will be another speaker.

Short speeches will also be given by two men most intimately connected with the telescope. They are:

Dr. Max Mason, chairman of the Observatory Council which designed and directed the Palomar project.

Dr. Ira S. Bowen, who will direct both Mt. Wilson and Palomar Observatories, will also explain and demonstrate operation of the 200-inch telescope.

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WYOMING

Ride, fish, geologize or just relax. How?

Paton Ranch will give you trout fishing in a mountain stream as it flows out of a canyon in the Big Horn Mountains, daily horseback rides along the picturesque trails and excellent food—most of which is grown on the ranch.

The region abounds in geological and historical interest—dinosaur bones, marine fossils and Indian implements are found nearby.

Write for folder—Paton Ranch, Shell, Wyoming