

to the U. S. Public Health Service, as compared with 595 during the previous week.

Except for Alabama and Maryland, which reported increases, the number of cases in the southern states decreased, as did the number reported from New England. Reports from the East North Central states were about the same as for the previous week. Increases were reported from New York and Pennsylvania.

Both North Dakota and Minnesota reported increases in encephalitis. North Dakota had 37 cases and Minnesota 17.

Influenza cases in Texas, which have been running high ever since last winter's outbreak and keeping the national total above the five-year median figure, dived from 530 to 254. This was still, as the Texas cases have been for the past several weeks, about 40% of the Nation's total of 672 cases.

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eral framework, the general lesson should come first. If you learn them in the wrong order, your score on an examination testing your knowledge of both will actually be lower than the average of two other persons who had each had only one of the lessons.

In one of the experiments described by Dr. Katona, lesson A consisted of an explanation of simple geometrical rules concerning angles. Lesson B required the students to learn by heart the data given for certain building lots—their form and size of their angles.

The unfortunate students who had lesson B first had to memorize all the angles in a mechanical way, almost as if they were learning nonsense. Later learning of the geometrical rules did not seem to clear up what they had already memorized.

Students who learned the general rules first were able soon to cut down on their work because they realized they needed to memorize only some of the angles—the others could be figured at any time from the rules.

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#### MEDICINE

## Sulfa Drugs May Substitute For Quinine for Malaria

### Studies Made in Panama by Rockefeller Foundation And Gorgas Hospital Indicate We May Be Free of Imports

**T**HE SULFA drugs may free the Americas from dependence on non-American sources of that strategic medicinal chemical, quinine, for the treatment of malaria.

This is one important, though un-stated conclusion to be drawn from a report by Dr. L. T. Coggeshall and Dr. John Maier, of New York, and Major C. A. Best, U. S. Army Medical Corps. (*Journal, American Medical Association, Sept. 27.*)

Promin and sulfadiazine, two of the newest sulfa drugs, may be regarded as "important substitutes" for quinine or atabrine in treatment of malaria, these scientists state as a result of studies made jointly by the Rockefeller Foundation International Health Division and the Gorgas Hospital, Canal Zone, Panama.

These two remedies were used to treat 30 malaria patients, both native and foreign residents of Panama. Promin was definitely effective in 17 cases, and sulfadiazine was effective in 10 out of 13 cases.

"It should be emphasized," the three doctors state, "that at present there are no reasons for giving the drugs in preference to quinine or atabrine for the treatment of malaria, and they should be regarded only as important substitutes."

The drugs may become vitally important substitutes, it appears, though the scientists do not mention this, in the event that the world's supply of quinine from the Dutch East Indies is cut off by war and present domestic stockpiles are exhausted.

Further study of the drugs as malaria

remedies is suggested. Better anti-malarial drugs than either quinine or atabrine are needed, scientists have long known. Although of great importance to the person with an acute attack of malaria, neither of these drugs can be relied on to remove the germs completely from the patient's blood. Neither have they true preventive action, although when taken in advance of the bite of an infected mosquito, they temporarily suppress an attack of malaria. It may be that some as yet untried or undiscovered sulfa drug will prove a better anti-malarial than any chemicals now available.

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#### PSYCHOLOGY

### Proper Order of Lessons Would Speed Training

**T**HE EASE with which you learn a new subject such as physics or mathematics may depend a great deal on the order in which your lessons come, research by Dr. George Katona, fellow of the John Simon Guggenheim Foundation, has revealed. Application of this finding might step up the efficiency and permanence of the learning of students training for defense, he indicated.

If you were studying dancing and Chinese history, it would not matter a bit which lesson you had in the morning and which in the afternoon, he said.

But if one of your lessons makes you understand the general idea of a subject or a principle and the other gives you facts that you can fit into that gen-

#### ENGINEERING—PSYCHOLOGY

### Light Colors Painted on Machinery Improve Seeing

**B**RIGHTER colors than the conventional dark green or battleship gray of machine tools increase the accuracy of seeing, provide more comfortable working conditions, and also increase production and reduce accident hazards.

These were the findings of a two-year investigation reported before the Illuminating Engineering Society by Arthur A. Brainerd of the Philadelphia Electric Company, and Matt Denning of the du Pont Company.

Color contrast was also found helpful. Of all the solid colors tried, light buff and light gray gave the best results, with aluminum color standing high and light blue next in line. But the best result of all was given by a two-tone scheme in which all machines were painted "Horizon Gray" and the working area "spot-lighted" with light buff.

The psychological effect on the workers was determined by a questionnaire. Photometric measurements were made of the brightness of the surfaces and rates of production were recorded. The work is still going on, the experimenters said, in several industrial plants and further data will soon be available.

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