

LINGUISTICS

# Urge Oral Reading

➤ ALL CHILDREN could learn to read in a single school term if only our alphabet were perfect and our system of spelling phonetic, Miss Nellie N. Neal, Los Angeles educator, told the meeting of the American Association for the Advancement of Science in Berkeley, Calif.

This fact was shown, she said, when an ideal alphabet was constructed for the Tarascan Indians of Mexico. The whole tribe became completely literate in their own language in three months.

As it is, she said, English is bilingual. It is spoken one way and written quite another.

"We doo not rit az we spek," Miss Neal writes in her report. "The child iz konfuzed and duz not lik to be laft at hwen he pronounces wurdz fonetikalli. Ingglish iz lik French. Meni leterz ar just for seneri."

The way should be paved for silent reading of bilingual English by periods of oral reading and drill on the pronunciation of new words, Miss Neal indicated.

This is not the modern trend. Many ex-

perts now insist that silent reading should precede oral reading and, in some schools, oral reading is no longer provided.

Words are introduced to children on "look and do" charts. In one first grade class, when the words "laugh out loud" were presented, all the children stretched out flat in their seats. When asked what they were told to do, they replied "lay out long." The first word was more phonetically correct than laugh. Then the children had misread the third word to make it fit into the context.

When school children meet unfamiliar words in silent reading, errors do not creep in, Miss Neal declared; they are stampeding the schools.

When the way for silent reading is paved by removing word-blocks by eye training and oral reading, children will have time to read enough so the repetition of new words will incorporate them into the child's speaking and reading vocabularies. Thus many children will do three school terms of reading in one.

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CHEMISTRY

# Sulfur-Contaminated Oil

➤ MANY OF the undesirable sulfur compounds found in petroleum deposits have been identified for the first time, it was reported at the meeting of the American Association for the Advancement of Science in Berkeley, Calif., by Harold M. Smith, petroleum chemist of the U. S. Bureau of Mines at Bartlesville, Okla.

At present, refiners of high-sulfur oil are removing or deactivating these unwanted chemicals by methods developed through trial and error. The new data will permit more efficient separating processes which will mean cheaper and better petroleum products for the consumer.

Forty-three sulfur compounds in the gasoline boiling range alone were separated and tagged in the American Petroleum Research Institute project, which has spent five years on the study.

Laboratory separation of the compounds was achieved by a combination of selective adsorption, chemical isolation and distilling techniques.

The first step was to concentrate the sample by evaporation. In general, the sulfur compounds were then separated by percolating the residue through alumina, which preferentially captures the sulfur compounds. Other substances such as zinc chloride and alcohol were used in later steps, along with thermal diffusion of the heated gases.

Identification was accomplished by such processes as infra-red analysis and mass spectrography.

Three fractions of high-sulfur petroleum from Wasson Field, Texas, were investigated. It was found that the lowest boiling phase, 38 to 111 degrees Centigrade, contained few sulfur compounds. The second cut, 111 to 150 degrees, contained 43 such compounds. In the last fraction, 150 to 220 degrees, many different kinds of sulfur compounds were discovered, consisting mainly of thiophenes with condensed aromatic rings.

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PUBLIC HEALTH

# Urges More Research To Fight and Use Venoms

➤ SNAKE VENOMS that kill an estimated 30,000 to 50,000 yearly should be studied more thoroughly, both to find better ways to protect snakebite victims and to find better ways to use venoms in disease treatment.

The "commanding challenge" of venom research was outlined by Dr. C. B. Pollard of the University of Florida, Gainesville, Fla., at the first International Conference on Animal Venoms held with the American Association for the Advancement of Science meeting in Berkeley, Calif.

Many of the early proposed methods of treatment for snakebite are not only ineffective but may be harmful, Dr. Pollard declared. He and associates in Florida, where the diamondback rattlesnake is plentiful, believe that all venomous bites should have

first aid treatment and prompt medical attention. In cases of serious diamondback bites, the following procedures, he said, have "given good results":

"Cruxation of fang wounds; application of suction; minimum physical activity of victim; application of tourniquet at nearest one-bone level between bite and body (the tourniquet should be released about one minute out of each 15-minute period); prompt attention of physician, hospitalization; prompt and prolonged application of ice-packs to large area, entire arm or leg; early administration of Antivenin (5 ampuls); early blood transfusions; tetanus-gas gangrene antitoxin; antibiotics; glucose-saline infusions; Benadryl; close and continued observation by attending physician.

"The limited number of patients who have received the above treatment have experienced practically no necrosis of tissue."

Science News Letter, January 1, 1955

## Questions

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GENERAL SCIENCE—What may be effect on scientists of lifetime grants? p. 6.

HERPETOLOGY—How does fear make a snake bite worse? p. 9.

What is the world's annual snake bite toll? p. 12.

ENGINEERING—What is the average length of drinks from a bubble-type water cooler? p. 8.

VITAL STATISTICS—By what percentage have surgical mortalities been cut? p. 5.

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