

PSYCHOLOGY

War Worries Children, Too

Young children unhappy about war, but themes show they also realize that killing and death are normal in peace as well as in war.

➤ **WAR WORRIES** children, even as young as third graders, and makes them unhappy just as it does grown-ups. But even young children realize that killing and death are always with us, in peace as well as in war.

These are the conclusions of a study by Dr. Arthur L. Rautman of the University of New Mexico Counseling and Testing Service in Albuquerque and Miss Edna Brower of the Board of Education at Sioux City, Iowa.

During World War II, in December, 1943, these two psychologists tested children's reactions to the war by a picture test. In the test each child was shown 10 pictures and asked to write the story of the picture. They were to tell what was happening in the picture, how the people were feeling and how it would end.

Some of the pictures showed a gun. In one, for example, a revolver was on the floor beside a boy huddling against a couch

with his head bowed on his right arm. Another picture showed a little girl climbing a winding flight of stairs. One showed a gaunt man with clenched hands standing among gravestones.

In 1943 war themes were in two or more of the stories told by 83 out of 536 children tested. In 1950, only eight out of 468 grade school pupils had war themes in more than one story.

The percentages of pictures interpreted in terms of death and killing by accident or other non-war means was almost identical in 1943 and 1950.

But in 1950 half the stories, 50.64%, were given a happy ending, compared to about a third, or 35.19%, given happy endings in 1943. The 1950 tests were made before the war in Korea started. Details of the study are reported in the *JOURNAL OF PSYCHOLOGY* (April).

Science News Letter, May 26, 1951

METALLURGY

Rhenium Has Bright Future

➤ **A LITTLE** known metal called rhenium may some day play an important part in high-temperature alloys and in the field of electronics, according to Prof. A. D. Melaven of the University of Tennessee in Knoxville. First and chief production of this metal in America is in the chemical laboratories of this institution.

Rhenium is a heavy, silver-white metal that has a melting point of 3,100 degrees Centigrade, about the same as tungsten. It is this high melting point that gives it value in high temperature alloys. It has a longer life than tungsten when operated at any given temperature, Prof. Melaven states.

The metal, if available in sufficient quantities, would be extremely valuable to manufacturers of high vacuum electronic equipment because it has a higher electron emission than tungsten. There are other possible applications. Only one source of the metal has yet been found. It is in a flue dust obtained in the processing of molybdenum sulfide, a by-product of Arizona copper sulfide.

Discovered in 1925 by German scientists, rhenium was produced commercially about 1930 from a Norwegian ore up until World War II. No production since then has been made, as far as known. In a process of obtaining it here from molybdenum roaster

flue dust, supplied by the Miami Copper Company, Miami, Ariz., the material is agitated in water. Molybdenum sulfide is filtered off and the filtrate treated with potassium chloride to precipitate potassium perchlorate, which is reduced by hydrogen to the metal.

The metal produced by the Tennessee University process is a dark gray to black powder selling at approximately \$900 a pound. Samples have already been sold to over 100 research laboratories. A much lower price is expected when larger reserves of the metal are found and better reduction methods developed.

Science News Letter, May 26, 1951

PHYSICS

Electronic Brains Can Mass Produce Clerical Work

➤ **A SECOND** industrial revolution is promised for the future by the development of electronic computers, Dr. S. N. Alexander of the National Bureau of Standards has stated.

Mass production techniques will be applied to the world's paper work, just as mass production techniques are now used to manufacture material things, he predicted at a meeting of the Industrial Research Institute in Washington, D. C. These

"fact factories of the future" will result from concerted effort to build such machines. Much of the know-how has already been acquired.

Although in scientific circles, mechanical brains are known as electronic digital computers, they can actually do much more than compute. The main thing they do, he said, is process information automatically and with tremendous rapidity.

Science News Letter, May 26, 1951

GENERAL SCIENCE

Navy Scuttles Cook Book For Card Index File

➤ **THE OLD** Navy Cook Book is being scuttled. Its place is being taken by 600 3 x 5 cards. Furthermore, the cards are as up-to-date as they can be—made of a plastic material, they are waterproof and washable.

The 600 recipes are the result of a two-year research program carried out by the Navy. Many of the old recipes in the Cook Book have been transferred to the 3 x 5 cards after testing. However, new recipes have also been added.

Science News Letter, May 26, 1951

ANOTHER LANGUAGE

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