

GEOGRAPHY

High School History Books Give Asia Little Space

► THE PREVALENT American idea before the war, that Japan was too small and unimportant to be much of a menace, can be partly traced to our high school education, Haldore Hanson of the Department of State recently informed the National Council for Social Studies.

Although more than a quarter of the world's population lives in China and Japan, our high-school textbooks on world history devote an average of 20 pages, or 2.7% of their space, to those countries, according to an education survey quoted by Mr. Hanson. Texts on social studies devote even less space, about 1.6% of the total, to the Far East. And of course students not specializing in history and social science would be even less informed about the Pacific area, according to this survey.

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PUBLIC HEALTH

Lowest Death Rate From Pneumonia Reported

► THE LOWEST pneumonia and influenza death rate on record among its industrial life insurance policy holders was achieved in the last annual cycle, September, 1941, to August, 1942, the Metropolitan Life Insurance Company announces.

During that period the average pneumonia-influenza death rate was equivalent to 32 deaths per 100,000 persons. This is 21% less than the previous low record made the year before and 63% less than the rate five years before.

Most striking is the change in the picture during the winter months when pneumonia and influenza deaths reach their maximum. During the winter of 1936-1937, considered an average winter at that time, pneumonia and influenza deaths reached an extremely sharp peak in February with a rate of more than 175 deaths per 100,000 persons on an annual basis. At the end of February, 1942, the peak was just over 50 deaths per 100,000 persons on the annual basis. The death rate for the winter months was 70% less than in the winter of 1936-1937, and the seasonal mortality curve has flattened out so as to be "almost beyond recognition."

The life insurance company warns, however, that the continued prevention

and control of pneumonia is the concern of every man and woman and that no common cold can be considered lightly. Signs or symptoms of more serious trouble call for prompt medical attention.

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PALEONTOLOGY

Groundhog Bones of Ice Age Found in New Mexico

► FOSSIL BONES of a groundhog that slept too long one winter some scores of thousands of years ago in its burrow on a mountainside in New Mexico tell a story of cooler, moister climate in the Southwest while the North was buried under its mile-thick blanket of ice. The find, and the climatic inferences thereon, are reported in the *American Journal of Science* by Dr. Charles E. Stearns of Tufts College.

The bones were found in a dust pocket, under a long-inactive landslide on a mountainside north of Albuquerque, at an altitude of 5,900 feet. Lowest altitude at which marmots (polite for groundhogs) live in that area now is about 4,000 feet higher than that. It is not known whether the animals must have the cooler climate of that altitude; but that is not of vital importance, because the green food on which the animals depend does not grow the year round in the more arid conditions prevailing at lower levels in the Southwest. So the presence of marmot remains at the 5,900-foot altitude argues for a cooler, moister climate at the time they lived there.

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INVENTION

Gloves Invented for Handling War Gases

► A DOUBLE-LAYERED glove for the protection of men who have to work with mustard gas, lewisite or similar vesicants, either on the battlefield or in the loading plant, is covered by patent 2,304,137, issued to R. W. Peakes, research chemist at the Chemical Warfare Service arsenal at Edgewood, Md., and assigned by him to the government, in the person of the Secretary of War. The outer layer is composed of leather, stout fabric or other wear-resisting material, while the inner layer, made of balloon cloth treated with gas-proofing materials, affords chemical protection to the wearer's skin.

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IN SCIENCE

TECHNOLOGY

Government Research on Cotton Hose Continues

► THE U. S. Department of Agriculture, which produced sheer cotton hose when silk grew scarce, is now experimenting with substitutes for sheer cotton.

At the experimental hosiery mill at Beltsville, Md., government technicians are trying to make elastic, durable hose from medium-length fibers, now that most of the long-staple cotton is needed for parachute harnesses, airplane cloth and other war fabrics.

Most of the cotton mesh or ribbed hose now being sold are made of fine twoply yarn from long-staple fibers. They are also original government designs or adaptations of them. Present research aims to increase the strength and elasticity of single-ply yarn by means of high twist and chemical finishes. The results may not be so sheer, but they will be practical.

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ENGINEERING

Mechanical Detectives Find Equipment Troubles

► MECHANICAL detectives are ferretting out weaknesses in power-generating equipment, thus saving war-important equipment and maintaining power output, J. L. Roberts and H. M. Dimond, engineers of the General Electric Company, told the American Society of Mechanical Engineers meeting in New York.

Turbine-supervisory instruments detect conditions that might result in failure or destruction of power generating machines, if not found and corrected.

Instrument records in one case, for example, showed increasing vibration which led to the shut-down of the machine. Inspection then revealed a crack developing in the generator field shaft. Without the warning of the instrument, the complete failure of the machine was likely since the gradual increase in vibration went unnoticed by the operators, the speaker pointed out.

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E FIELDS

RESOURCES

Re-Processed Wool Warm As Low-Grade New Wool

► BLANKETS containing new wool of poor quality are no warmer than blends of re-processed wool or mohair, but the new wool may last a little longer, depending on its quality. These are the conclusions based on Department of Agriculture tests on hospital blankets, given hard wear for 120 weeks and laundered 60 times.

While the differences in wear were too small to constitute a victory for new wool, says Miss Margaret B. Hays, textile physicist for the U. S. Bureau of Home Economics and co-author of the research report, and while there was no difference in warmth, the tests for breaking strength and shrinkage rated new wool best, mohair second, and re-processed wool third.

The blankets tested all contained some good quality new wool. In addition, one blanket contained one-third poor quality new wool; one had one-fourth re-processed wool from knit goods; and the third contained one-fourth mohair noil (the short, combed ends of mohair fiber).

Scientists at the National Bureau of Standards explained that it is the quality of wool, or wool substitute, which determines its serviceability, rather than the type of material. This was confirmed by Miss Hays, who is planning further tests to check the above results.

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GENERAL SCIENCE

Many Scientific Societies Calling Off Meetings

► MIDWINTER meetings of scientific and learned societies, one of the most characteristic features of American research and academic life, are being swept out wholesale by the winds of war. These meetings are being called off in order to avoid unnecessary increase of holiday travel.

Among postponements and cancellations that have been reported to headquarters of the American Council of

Learned Societies are the scheduled meetings of the Geological Society of America, the Society of American Bacteriologists, the Archaeological Institute of America, the American Economic Association, the American Sociological Society, the American Statistical Association and the Modern Language Association of America.

The indefinite postponement of the year's biggest scientific meeting, that of the American Association for the Advancement of Science and its many affiliated societies scheduled for New York from Dec. 28 to Jan. 2, was announced earlier.

A few smaller meetings, whose programs have more or less direct bearing on wartime problems in science, are being held, though in some instances these are being postponed to place their dates outside the holiday period or near its close. Among them are the meeting of the American Physical Society, to be held in New York late in January; the Chemical Engineering Symposium, scheduled for Dec. 28 and 29 in Chicago, and the Organic Chemistry Symposium, in Boston Dec. 28 to 30.

Cancellation of the annual session of the American College of Physicians, scheduled for April 13-16, 1943, in Philadelphia, is announced in the *Journal of the American Medical Association*.

Assemblies of the Southeastern Surgical Congress and publication of the *Southern Surgeon* have also been discontinued for the duration of the war or until the executive council decides to continue them again.

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ENGINEERING

Rain Runoff Studied As Aviation Problem

► WATER running off flight strips during heavy rainstorms constitutes one of the major engineering problems connected with these emergency aids to aviation. Carl F. Izzard, Public Roads Administration engineer, told the Highway Research Board of a "rain-making" device that has been built for the experimental study of this problem. It consists of a set of pipes with sprinkler nozzles, capable of delivering a synthetic rainstorm of any desired violence over a measured area, together with arrangements to catch and measure the water that runs off the surface. It has been used on both paved and turf-covered flight strips, and the data which have been accumulated are being analyzed.

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ZOOLOGY

National Zoological Park Acquires Two Conies

► A PAIR of conies, little animals mentioned several times in the Old Testament, have come to live at the National Zoological Park. Dr. William M. Mann, director, acquired them from the Philadelphia Zoo in a "swap." They are now contentedly settled in their new quarters, ready to receive visitors.

King David and his son Solomon both knew conies, it appears. At any rate, they are mentioned in Psalm 104; and in chapter 31 of the Book of Proverbs it is written: "The conies are but a feeble folk, yet make they their houses in the rocks."

Conies are usually referred to as rabbit-like animals. Actually, they are not at all closely related to rabbits. Their only existing zoological cousin is the elephant.

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PHYSIOLOGY

B Vitamins Synthesized By Germs in Intestines

► GERMS in the human intestinal tract may be beneficial in that they synthesize B-vitamins, it is reported in the *Nutrition Reviews*. (November)

Commenting on this research by Paul R. Burkholder and Ilda McVeigh of Yale University, the nutritionists raise the question whether this may not be the answer to the puzzling fact that babies thrive on modified cow's milk which is low in nicotinic acid, part of the B complex, yet show no signs of deficiency in this vitamin.

Although the vitamins are manufactured within the bacterial cells present in the intestine, the two researchers point out that the vitamins are not excreted freely by the germs and may thus be of limited value to man. They admit, however, that the species of germs studied synthesized more of the vitamins than they could use themselves and the excess was excreted.

Much work remains to be done before we can judge the practical significance of these myriads of microscopic plants which live with us throughout life.

Other workers had previously shown that intestinal germs synthesize vitamin K. Since the intestinal tract of the newborn infant is sterile, this explains at least in part, the importance of the anti-hemorrhagic vitamin to the expectant mother and newborn.

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