



FOR BOMBARDIERS

Combat crews may now receive instruction in an airplane having many characteristics of the newest tactical craft. This AT-11 (Beech) is equipped with machine gun turret and bomb racks. The photograph is an official one released by the Army Air Corps at Wright Field.

As much as 2,000 pounds heavier, and developing 75% more power than pilot-trainers, are the two new models designed for navigator-bombardier training. One of these carries a crew of five and is equipped with a chart table, a

periodic compass, stabilized drift sight for student navigators and a celestial navigation dome for sextant readings.

The other, which carries a crew of three or four, has a machine gun turret and bomb racks.

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POPULATION

Japan and Germany May One Day Be Enemies

In Addition To War of Machines, Battle for Numbers In Population Is Waging Between the East and West

UNDER cover of this war of machines, a battle for superiority in population increase is taking place between the East and the West, with the East easily the victor—a fact which one day may bring Japan and Germany face to face in an epochal strife for world dominance. These are the views of Dr. W. S. Thompson, of Miami University, Oxford, Ohio, Director, Scripps Foundation for Research in Population Problems.

Dr. Thompson points to India, where the multitudes have increased by 48 millions during the past decade, the largest population increase in India's history. Her total population now stands at about 400 millions, three times that of the United States.

By comparison, the United States has done poorly. Our greatest population increase was only 17 millions in the decade, 1920-30, an increase of 16.1%. In the decade during which India's people increased 48 millions, we increased only about 9 millions, according to the latest census. The rate of increase for this decade was only 7.2%.

Concealed in these figures for the United States is a steadily declining birth rate. Our population increases only because our death rate has dropped nearly as fast, while immigration made up the difference.

But immigration into the United States has virtually ended. Whether it will ever begin again and reach its

former proportions, no one can now say.

Behind this increase in Eastern peoples and decline in Western peoples are industrial causes, Dr. Thompson believes. As a nation becomes industrialized, earns greater income, its sanitary measures improve and its death rate drops sharply. The decrease in deaths, for a time, more than makes up for the simultaneous decrease in births due to industrial society. This decrease in births is due to the population shift from farms to the cities where contraceptive information and devices are more readily had.

Western nations passed through this phase of development in the last century and early in this century. But the East is just beginning to become industrialized, Japan far in the lead, of course. Industrialization of the East will certainly be sped by a Japanese victory. But there is a great difference in industrial potentialities between the East and the West, Dr. Thompson points out.

The East has less iron and coal resources than the West. Hence industrialization can only go so far, and it thus becomes doubtful if the East will ever develop as great an urban population. Even Japan, whose population has to a great extent shifted to the cities, cannot equal Germany or the United States in urban population.

India, however, is 30 years behind Japan in development of her industries. India's dawning industrial era, plus the sanitation efforts of Great Britain, are, Dr. Thompson believes, the reason for the 48 millions population increase of this past decade. In the previous decade, India's population increased from 318 millions to 352 millions, an increase of only 34 millions.

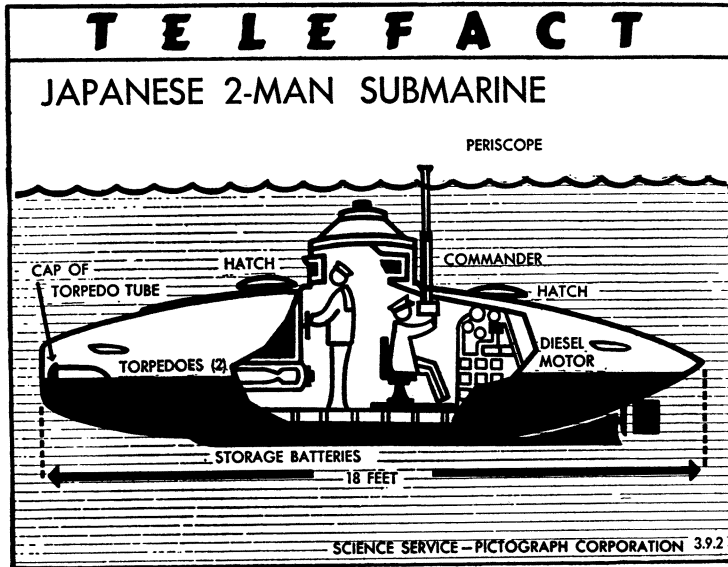
Combining these facts, Dr. Thompson reaches an over-all picture of Western population decline, and a swiftly growing, gradually industrialized East. One day, Dr. Thompson concludes, this trend may bring Japan and Germany face to face in a war for world dominance.

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For years *barn owls* have nested in one of the towers of the Smithsonian Institution in Washington.

The *house wren* will sometimes build its nest in an old hat, an empty tin can, or in the coatpocket of a scarecrow.

That old saying about dew in the morning being a sign of clear *weather* is backed by scientific evidence—when the night sky is cloudy, little or no dew is precipitated.



ANTHROPOLOGY

Blueprint For World Peace Needed Now, Say Scientists

World Federation Based on Democratic Equality of Brown, White and Yellow Races Considered Necessity

UNLESS we prepare for peace now, we can never hope to see an end to war. This was the conclusion of anthropologists speaking before the American Academy of Arts and Sciences in Boston.

"A world federation based on democratic equality of brown, white and yellow races is no longer an ideal," said Dr. Eliot D. Chapple of Harvard Medical School. "It has become a realistic necessity." Dr. Chapple is president of the Society for Applied Anthropology.

"If we wait for victory before planning the post-war world, it will be too late," he warned. "Temporary measures automatically become part of the permanent structure, and are apt to breed new wars just as the Treaty of Versailles did."

The Versailles peace settlement not only failed to live up to its ideals, but the ideals were based on the outmoded production methods of the 19th Century. Yugoslavia was cited by Dr. Chapple as example of trying to unite peoples on the basis of language alone. The Croats and Serbs have never been able to unite

because of their fundamental geographical and technological differences.

Technological unity in world planning, rather than language or racial similarities, was stressed by Dr. Conrad M. Arensberg of Brooklyn College. The greatest change in Russia came about "not when the Tsar was assassinated, but when the tractor was introduced." The fact that industrialization is proceeding at different rates of speed in different countries makes it necessary, according to Dr. Arensberg, to plan along democratic lines, using local institutions wherever they exist. Sudden changes imposed by totalitarian methods would even further dislocate the post-war world.

"Two wars have been caused by our total lack of planning," Dr. Carleton S. Coon, Harvard anthropologist, charged. "Even now we are content to leave the whole subject of planning to the economists and engineers, forgetting that we are dealing with the behavior and interactions of human beings. The physiological needs of human beings are the same everywhere. We no longer have any 'primitive' races to conquer and exploit."

"We must learn the bitter lesson," said Dr. Chapple in his paper, "that we have to plan for human beings, and not for 'economic men' or 'political animals' or 'men of good will.' We have to plan for people as they actually behave, not as we think they ought to be."

Dr. Chapple envisioned a post-war world federation with possession of an armed police force, divided according to geography and technology rather than race or language, and containing economic equality for all peoples hitherto considered "primitive" or backward.

"Germans and Japanese must be included," said Dr. Chapple, "however painful and bitter our feelings toward them. Their totalitarian systems drove them automatically on their present course. It is of fundamental importance that, this time, some positive action shall be taken to insure them a democratic system of their own."

Dr. Chapple and Dr. Arensberg both believe that democratic methods provide the only safe and efficient way to introduce the technological changes necessary in world-scale planning. "The usual criticisms of democratic inefficiency," said Dr. Chapple, "are due to the fact of having too little democracy. Inefficient organization results from the existence of totalitarian sub-systems within a society, which operate to prevent full democracy."

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OCEANOGRAPHY

Lost Buoys, Made of Mine Casings, Adrift in Gulf

SHIPS in the Gulf of Mexico may sight what appear to be floating mines but are really only harmless buoys made of the casings of obsolete mines, the U. S. Coast and Geodetic Survey warns. Last year, parties of Survey workers, on duty near the Gulf coast, used some of these spherical mine cases for floats for a marker needed in their work. Some of the buoys became lost and are probably still adrift.

"There may be as many as five spheres as well as a few regular buoy signals adrift in the Gulf," the Coast and Geodetic Survey stated. "It is probable that this floating survey gear is now widely scattered. After a period of exposure to seas and weather, the black cloth targets on the buoy signals are destroyed, leaving a slender white wooden framework about 20 feet high which from a distance might conceivably be mistaken for a periscope."

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