

points above that city to have been trenched to a level fully 100 feet below the present stream, or to less than 500 feet above sea level. The filling with gravel to 700 feet thus shows an aggradation of about 200 feet.

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AVERAGE HEIGHT OF AMERICAN MEN

RECENT articles in *SCIENCE* have left the reader with a certain amount of skepticism as well as a large amount of thought-provoking data.

In the December 12 issue of *SCIENCE* (Vol. 94, No. 2450, pp. 552-553) Leonard R. Rowntree gives an average height of over 2,000,000 registrants examined as 67½ inches, the identical average of men in World War I. An increase in weight of 8 pounds was shown.

In the January 13 issue of *SCIENCE* (Vol. 95, No. 2454, *Supplement*, p. 13) Dr. Laurence B. Chenoweth and Richard G. Canning found that of 10,005 students of the University of Cincinnati born between 1904 and 1921, the average height of freshmen in 1916 was 67.5 inches; in 1936 it had increased to 69.9 inches; and that no increase in average size had occurred since 1936. Not only has the size of man increased, the scientists say, but children are growing more rapidly.

To this reader the foregoing statements are very contradictory unless the increased weight of registrants as shown by Rowntree can be assumed to be increased size. Even with this assumption, the conclusions drawn by Chenoweth and Canning that the size of man has increased and children are growing more rapidly is only half substantiated by Rowntree's observations.

Not having available the full text of either report it may be premature on my part to comment; nevertheless, outwardly there appears to be a false hypothesis on the part of Chenoweth and Canning, not on the data obtained, but as a result of the population from which their sample was drawn. Since their sample was only representative of those individuals who no doubt had, through the force of circumstances, been given greater or higher privileges as children, as evidenced by their university attendance, it should not have been used to draw the general conclusions given. In Rowntree's sample of 2,000,000 individuals, taken from all walks of life and from all sections of the United States, it would seem that we have a most complete and uniform distribution, and the odds that the average is a true average are very great. He shows no growth in height from 1916 to 1941, but does show an increase in weight.

These observations would lead one to conclude that the childhood care and advantages, which result in increased growth, are much greater for those students

in the University of Cincinnati than for the United States as a whole, and that any conclusions drawn by Chenoweth and Canning should be confined and not generalized.

The most interesting and enlightening article, "Life in the Andes and Chronic Mountain Sickness," by Dr. Carlos Monge, University of San Marcos, Lima, Peru (*SCIENCE*, Vol. 95, No. 2456, pp. 79-84) would appear to be of value to our officers of the Army, Navy and Air Corps. The strength, lung and heart reactions of the Andean man is certainly something to be reckoned with. It indicates there is possibly a selective area in the United States from which men for certain types of combat and for combat in certain types of terrain could or should be drawn. We have in this country men coming from sea-level to elevations of several thousand feet. Very few have probably been reared at elevations above 6,000 to 7,000 feet, but many have been reared in elevations of 2,000 to 5,000 feet, and their heart, lung and strength reactions would possibly be in a more or less direct ratio to the elevation in which they were reared.

Have our commanding officers given any thought to grouping these men according to their branches of service and to the possible combat areas in which they are to serve? Would not a grouping of our men from coastal areas or sea-level and from the areas of higher altitudes give greater efficiency to our armies?

After reading the latter article by Dr. Monge it was recalled that Rowntree showed that 7 of 10 men from Colorado were accepted as physically fit for service, but only 3 of 10 from one of the southern states. The elevation of Colorado may or may not be a factor, but it does give food for thought to the layman.

In conclusion, I should like to see Dr. Monge's article stripped of its more technical terms, written in a more popular vein so that the layman could better understand it fully and published for distribution. It is believed that many people would derive as much pleasure and information from reading it as I have.

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A CASE OF "WINE-FED" TERMITES

DURING the summer of 1937, a wine dealer was alarmed at the leaking of wine from wooden boxes packed on the floor of his concrete vault. On examination of the cases, insects were found and immediately an exterminator was called in to investigate the situation. The exterminator brought a leaking case of the imported wine to the writer, who identified the "bootleggers" as *Reticulitermes flavipes* Kollar. Several of the bottles had the lead foil, sealing the neck and cork, eaten through, as well as the corks punctured. There were no insects drowned in the wine, but the straw jackets covering the bottles were alive with soldiers

and workers both young and old. Two wine-soaked jackets along with several hundred specimens were sealed in a rectangular museum jar. The jar was placed in the dark and periodically examined. When brought into the light the specimens began to coat the jar, so that, after a time the four sides were coated with a clay-like substance. It was a lively, interesting sight to see the specimens running through the tunnels made in the material coating the glass. Over a period of four years, there were no swarms, although many young specimens were observed. No mold was formed, as is often the case when cultivating termites in the laboratory. The end came when the food was consumed.

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SCIENTIFIC INTUITION OF A ROMAN EPI- CURE. A QUOTATION

THE appended quotation¹ from Petronius, Rabelais' prototype at Nero's court, is peculiarly timely to-day:

"But tell us," said Trimalchio, "what was the bill of fare?"

"All right," he replied, "I'll tell you if I can: my memory is so brilliant that I often forget my own name. However, to begin with, we had a roast pig crowned with a wine-cup; this was set off by cheese-cakes and forcemeat done to a nicety; then of course beetroot *and pure whole-meal bread, which I prefer to white bread as being more feeding and better for my liver.*"

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QUOTATIONS

DISEASE IN WARTIME¹

MALARIA

BECAUSE it includes one of the recently acquired military bases of the United States, Trinidad takes on new importance to this country. At the request of the Army and Navy and on the invitation of the Government of Trinidad, the Rockefeller Foundation is participating in a study of malaria in the civilian population of that island. Malaria is the outstanding health problem there, and while the identity of the principal vectors responsible for the disease in Trinidad has not been definitely established, evidence points to two species of anopheline mosquitoes. One of these species breeds in the water which collects in the leaves of a plant growing on trees. Malaria is thus often prevalent in regions where the usual marshes and streams, commonly associated with the disease, are absent, and this probably accounts for the fact that malaria is found at nearly all altitudes in Trinidad. The Foundation has assigned a malariologist and an entomologist to determine the factors of the problem, and when these have been obtained it will be possible to make intelligent plans for controlling the disease.

Another project in malaria under Foundation auspices is on the Burma Road. This project was begun in 1940 under the direction of Dr. W. C. Sweet of the Foundation staff. On one section of the Road, troops and truck drivers became heavily infected with malaria a short time after their arrival, and investigations were begun at that point. More than twenty species of anopheline mosquitoes were found in this area, but only one proved to be an effective carrier of the disease. A laboratory has been

established directly on the Road, and although under the war circumstances the project has encountered great difficulties, it is hoped that effective control measures will soon reduce the incidence of malaria at this critical section of the highway.

TYPHUS

"In its tragic relationship to mankind," said Hans Zinsser, "the disease of typhus is second to none—not even to plague or to cholera." In most major wars of the past more persons have succumbed to typhus than have fallen on the battlefield—and Zinsser speaks of "the relative unimportance of generals." Whether a similar disaster will accompany this war we do not know, but typhus is now active in many parts of Europe. Epidemics are building up in southern Spain. Other known focuses of the disease are in Poland, Rumania and the neighboring countries, whence it may be expected to spread in disastrous epidemics as the result of conditions imposed by prolonged warfare.

In spite of the fact that it is an age-old problem, our basic knowledge regarding this disease is far from adequate. We know in a general way that it is spread from person to person by means of the body louse and that it develops rapidly with devastating results when people are crowded together under unsanitary conditions and when there is a heavy louse infestation. We also know that in most instances one attack confers lifelong immunity, and we have certain rudimentary knowledge regarding the prevention of its spread by such measures as general delousing and quarantine. But we do not know how

¹ From the Review for 1941 of the Rockefeller Foundation by President Raymond B. Fosdick.

¹ Chapter LXVI, "Petronius: The Satyricon." Translated by J. M. Mitchell. London: J. M. Rutledge and Sons, Ltd.; New York: E. P. Dutton and Company, 1923.