

## PSYCHOLOGY

## First Judgments Not Best on a Test

**A** HINT to the student who is likely to encounter one of the new "true-false" examinations is contained in a report made by Dr. Edna E. Lamson, of the University of Cincinnati, to the Midwestern Psychological Association.

Dr. Lamson asked a large group of students to leave their original answers on the examination paper whenever they changed their mind and decided that the correct answer was "true," not "false," or vice versa. She found that only two per cent. of the original answers were changed.

"It is better to record a second judgment than not to record it," said Dr. Lamson. "The chances are two to one that the second judgment will be the correct judgment. It is much safer to change a judgment from true to false than from false to true."

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## PHYSIOLOGY

## Man May Control Destiny By Glands and Environment

**U**NDERSIZED human beings will be able to add a cubit or two to their stature in the future by use of pituitary hormone, Dr. Oscar Riddle of the Carnegie Institution's Station for Experimental Evolution, Cold Spring Harbor, N. Y., predicted in a Science Service radio talk given over the network of the Columbia Broadcasting System.

Dr. Riddle sees the most promising method of controlling man's future development by manipulating his extremely complex environment rather than by modifying the minute bearers of heredity, the genes, within the egg cells in the hope of changing the character of all future generations.

Laboratory experiments cited by Dr. Riddle show that growing animals and plants can be profoundly modified by what happens to them. Take a little water out of certain eggs or shake them up and they proceed to develop without the intervention of a male parent. Fatherless frogs have been produced. Some worms can be made to grow a head where a tail would normally be found. Tadpoles can grow eye lenses from skin taken off their backs. Skin of a white Russian rabbit when refrigerated turns black and grows black hair. Sex of many animals can be controlled and re-

versed and oysters change their sex with the seasons. Well-fed mice can be made twice the size of ordinary mice.

Those stunted little human beings known as cretins are having inches added to their ultimate height by the use of the hormone prepared from the thyroid gland of the ox and sheep, Dr. Riddle said. Since the pituitary gland produces the growth hormone and can be used to double the size of salamanders, rats and bulldogs, Dr. Riddle predicted that it would soon be used to increase the stature of human beings.

But he was careful to explain that this hormone is not yet available for personal use and when it does finally arrive it will be administered by the medical profession.

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## EDUCATION

## College Sophomores May Get Uniform Examination

**A**BOUT A QUARTER of a million sophomores in colleges, teachers' colleges and junior colleges will be examined simultaneously on two days in May of 1932, if success meets plans of the Cooperative Test Service as outlined at the meeting in Washington of the American Council on Education by Dean J. B. Johnston of the University of Minnesota and Director Ben D. Wood of the Service.

Every college is invited to take part in this cooperative testing program, and other classes may take the same tests if the college desires it.

The same examination will be given throughout the whole country, so that any individual student may learn how he compares with all others, not alone in his own state but from Maine to California.

Included in the examination are tests of intelligence, general culture, general science, and English. Six and a half hours will be required for the examination which will be given in two periods.

The examination and others for use in future years will be constructed, tried out and standardized by the Cooperative Test Service. It will be of the objective type which may be scored with the use of a definite key of correct answers.

"That much useful data can be furnished by objective tests has already been demonstrated by the experience of many high schools and colleges. No claim is made that they are an adequate measure of all the outcomes of good instruction," Dean Johnston said.

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# IN SCIEN

## STANDARDS

## International Length Standard Falling Down

**S**CIENTIFIC length scales of hitherto superhuman accuracy are showing unexpected weakness in experiments conducted by the National Physical Laboratory located at Teddington, near London.

The superintendent of the Metrology Department of this laboratory is worried because four 24 meter "invar" surveying wires persist in showing a discrepancy in measurements of about 2½ parts in a million.

These wires belong to the Bureau International des Poids et Mesures, in Paris, and were measured at Teddington in 1928, when a disagreement of two parts in a million was found between the values obtained at the two institutions. They have been sent over the Channel again for intercomparison with the Laboratory standards, and the results show that the disagreement found in 1928 still persists.

Invar is a metallic alloy which keeps its length unchanged with changes in temperature and is used for this reason in making watch parts.

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## PALEONTOLOGY

## Monster Dinosaur Skeleton Displayed in Washington

**A** GIANT dinosaur skeleton, seventy feet long from nose to tail tip and twelve feet high at its humped-up hips, has just been mounted in the U. S. National Museum.

The huge reptile, which belongs to the genus known as *Diplodocus*, has been seven years in preparation. A corps of scientists and technicians, working under the direction of Charles W. Gilmore, have spent over 2,500 working days, the equivalent of one man's time for nine years, carving the fossil bones out of their embedding matrix of stone, finding the right places for them in the skeleton and building the carefully fitted supporting framework of wrought iron.

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# CE FIELDS

## ENTOMOLOGY

### Gnats Kill 200 Mississippi Mules

**B**UFFALO gnats enough to kill a Dixie mule sounds like a large order; yet that is what two counties in Mississippi have been up against this spring, entomologists of the U. S. Department of Agriculture report. An outbreak of these troublesome insects, the worst in many years, was responsible for the death of at least 200 mules in the space of a couple of days. Other troublesome outbreaks of the same insects were reported from Arkansas and Kansas.

The buffalo gnat is an insect quite distinct from the somewhat annoying but really harmless little midges commonly known as gnats. It is a vicious little bloodsucker, with a distinguishing hump on its back that gives it its nickname.

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## ARCHAEOLOGY

### Ur of Chaldees Stood In Alexander's Time

**D**ISCOVERY of important tablets and ruins which demonstrate that Ur of the Chaldees was a living city as late as 324 B. C. in the reign of Alexander the Great has just been reported by C. Leonard Woolley, field director of the joint archaeological expedition of the University of Pennsylvania Museum and the British Museum.

The newest discovery, which extends the history of Ur, is announced in the final report of the season's work at Ur, made to the University of Pennsylvania Museum, Philadelphia.

Mr. Woolley declares that there could be no more striking contrast than that between Ur of Abraham's time some 2,000 years before Christ and the last stage of Ur which was built fifteen centuries later.

"Abraham's Ur was a huddle of close-packed houses, small in area but solidly built with burnt and crude bricks, two and sometimes three stories high," Mr. Woolley states. The houses were divided by narrow winding lanes

whose twists and turns were dictated by the accidents of private ownership.

"The Ur of Nebuchadnezzar was laid out on the gridiron plan with broad and straight main streets intersected at right angles by narrower cross-roads. The houses, built of crude brick with no burnt-brick foundations, were only one story high, but spread over so generous an area that a single house might constitute a whole block.

"One curious feature which Ur shared with contemporary Babylon gave to these wide streets a character probably unparalleled in any other age or land. The builders did all in their power to avoid a plain surface.

"Where a wall should normally have run in a straight line between two points, it is either broken up into a series of unnecessary buttresses, or, more often, resolved into a succession of short zigzags like the teeth of a saw."

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## NUTRITION

### Vitamins, Fattening Foods Needed by Tuberculous

**V**ITAMINS A, B, and D and fattening foods are important constituents of the diet for tuberculous patients, Dr. Burgess Gordon and Dr. En Shui Tai of Philadelphia reported to the National Tuberculosis Association in Syracuse, N. Y., last week.

"It appears that a dietetic plan consisting of from 2,500 to 3,500 calories and supplemented with vitamins A and D provides a desirable food intake," they stated.

The Philadelphia scientists studied food eaten by a large group of tuberculous patients and other patients with lung disorders. They found that vitamin A probably helps to prevent the tuberculous patient from developing other infectious diseases and that vitamin B has some effect on the asthmatic symptoms. A combination of vitamins A and D apparently favors the increase of body weight.

"Excessive body weight is an important aid to the patient in tolerating active and extensive tuberculosis," Dr. Gordon said. "This is perhaps due to the adaptability of body fat and fluid to variations in temperature and humidity of the weather."

In high humidity, the majority of patients have increased loss of water through the skin and decreased secretion favors retention of poisonous products. This condition is considerably less disturbing in overnourished patients.

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## EXPLORATION

### U. S. Iceberg Expert To Fly to North Pole

**T**HE UNITED STATES will be represented on the Graf Zeppelin by Lieutenant Commander Edward H. Smith of the U. S. Coast Guard when the airship sails during July on its flight over the Arctic to make contact at the North Pole with the submarine Nautilus under the command of Sir Hubert Wilkins. Harvard University, the American Geographical Society and the National Academy of Sciences recommended Commander Smith as a scientific member of the proposed Graf Polar trip of 1930 which did not materialize.

In the orders that relieve Commander Smith of active duty so that he can go on the trip this year the Coast Guard specifies that he is to gather scientific information which will be of value to the International Ice Patrol in the North Atlantic. The Ice Patrol is conducted by the Coast Guard and reports the location of bergs dangerous to shipping. Its expenses are met by a number of nations whose vessels use the North Atlantic.

Commander Smith has visited European countries inspecting oceanographic equipment and studied at the Geophysical Institute, Bergen, Norway.

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## COMP. R. TIVE PSYCHOLOGY

### Monkey Clever as Ape, Intelligence Test Shows

**A**CAPUCHIN monkey, rated zoologically as considerably inferior to the man-like tailless apes, has shown himself to be as clever as a chimpanzee at solving problems connected with food-getting.

The experiments of a Dutch scientist, Dr. Bierens de Haan, reported in the German scientific journal *Zeitschrift für vergleichende Physiologie*, consisted in confronting the monkey with the same task as that faced by chimpanzees in the earlier researches of the German scientist Dr. Wolfgang Koehler.

Food was suspended at the top of the cage, and several boxes, none of them high enough alone to enable the monkey to reach it, were left where he could handle them as he pleased. The monkey learned to pile the boxes one on top of the other and to climb up after the food, just as Koehler's chimpanzees had done.

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