

PSYCHOLOGY

Mature Women Have Best Chance for Married Bliss

"FORTY" has an unpleasant sound to both men and women, bringing with it fear of the loss of charm, sex attraction, mental alertness, and industrial usefulness. Need is felt for slogans, books and sermons to bolster the spirits and convince that "Life begins at forty," or that then comes "The prime of life."

Scientists, too, add their word of encouragement to older women. Marriage, it has been found, is much happier for mature brides than for those who wed in early youth.

Brides under 24 years of age find bliss in only 28 couples of each hundred, Dr. G. V. Hamilton and Kenneth MacGowan discovered in their famous study of marriage. Half of those between 25 and 29 (59 per cent) are happily married. Brides between 30 and 34 are more fortunate; 63 per cent of these more mature women become happy wives. Older brides are only slightly less likely to be happy, 57 per cent of all those over 35 finding joy in marriage.

Comparative ages of bride and groom have something to do with the marital happiness of the pair, these scientists found. Greatest chance of happiness exists when they are of equal age. A woman may find happiness with a much older husband, for he becomes a substitute for the father she has loved. Happiness is very unlikely when the bride is seven to eleven years older than the groom.

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ANTHROPOLOGY

Now We Can Worry Over Stone Age Race Problems

T IRED of hearing about fair-haired, superior Nordics? Tired of arguments over Yellow Perils and the rest of the modern race worries?

Look back, then, 100,000 years or more and try solving the earliest race problem of all—how races began.

Scientists digging up prehistoric man's bones are finding evidence that races developed earlier than supposed. What their skin color was then, or color of their hair, will never be known. Nothing is left of cave dwellers of the Old Stone Age except dry bones. But some of these bones bear marks of kinship with other human groups, plain enough for the expert prehistorian to begin to trace the story of racial evolution.

Caves at Mount Carmel, Palestine, have yielded skeletons of human beings who lived about 100,000 years ago, and who were nevertheless a type of *Homo sapiens*, modern species of man. This importance is given the tall, well-built cave men by the noted British anthropologist, Sir Arthur Keith, and his young American associate, Theodore McCown.

Mr. McCown explains:

"We have evidence to show that already at the end of the Riss-Würm interglacial period 100,000 years ago, modern races of man lived. The Palestine men are not generalized enough to be the ancestors of white, yellow, and brown races. We cannot see them developing into Mongolians. We can see them developing into some of the white European racial stocks."

While Palestine caves offer a glimpse at the white race's early evolution, other discoveries may show that the yellow race had its cradle in the East, and the black race in Africa, all very early.

Peking Man, whose bones from a Chinese cave are considered at least half a million years old, is sufficiently Mongol to be ancestor of Mongolians, in the opinion of Dr. Franz Weidenreich. And Africa's Kanjera Man, believed about 100,000 years old, has a skull that shows flattened features of a primitive Negroid type.

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SEISMOLOGY

Strong Earthquake Shock Near Peruvian Coast

A STRONG earthquake convulsed the earth's crust near the coast of northern Peru on Monday forenoon, June 21. Seismologists of the U. S. Coast and Geodetic Survey, collating telegraphic reports relayed through Science Service, determined an approximate location of the epicenter as in latitude 7.5 degrees south, longitude 80 west. The shock began at 10:13.1 a.m.

Earthquake observatories reporting were: Dominion Meteorological Observatory, Victoria, B. C.; the Seismological Laboratory, Pasadena, Calif.; Dominion Observatory, Ottawa; University of Michigan, Ann Arbor, Mich.; the stations of the Jesuit Seismological Association at Weston College, Mass.; Canisius College, Buffalo, N. Y., and St. Louis University, St. Louis, Mo.; and the stations of the U. S. Coast and Geodetic Survey at Ukiah, Calif., Tucson, Ariz., and Apia, Samoa.

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IN SCIENCE

ASTRONOMY—PHOTOGRAPHY

Eclipse Picture From Plane Shows Curious Reflections

See Front Cover

T HE COVER picture of this week's SCIENCE NEWS LETTER is from an unique unretouched photograph, one of a series made by the Hayden Planetarium-Grace Eclipse Expedition. It is one of the occasional astonishing freaks that occur in photography.

It was made looking nearly directly west over the left wing of a Pan American Grace Airways airplane over the coast of Peru at an elevation of 25,000 feet, a second or two before totality of the solar eclipse of June 8. Although only a point of direct sunlight was still visible, this was sufficient to enter the camera lens and cause the central spot of light which appears in the print to be the complete disc of the sun, and to form in addition (through reflection between the several surfaces of the camera lens) a series of circular rings on the negative. In the foreground, 22,000 feet below, the last bit of sunlight is shining on a cloud bank 3,000 feet over the ocean.

The many other pictures of the expedition, though less spectacular than this, have more scientific value. The photograph was snapped by Major Albert W. Stevens.

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ZOOLOGY

Australia's "Live Teddies" Showing Signs of Comeback

K OALAS or native bears, appealing, furry little tree-dwelling animals that look like Teddybears, are staging a comeback in the wild. This gratifying result of 20 years of effort for protection of these unique animals is reported by the Wild Life Preservation Society of Australia.

Several groups of koalas have been seen in eucalyptus forests along the coasts of New South Wales, where it was thought they had been wiped out long ago by fur hunters. One colony has been reported within a few miles of Sydney.

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E FIELDS

MEDICINE

New Serum Saves Lives Of Childbed Fever Victims

ASERUM that probably saved the lives of 36 women suffering from childbed fever due to hemolytic streptococcus infection was described by Dr. Abraham F. Lash, of Chicago, to the American Medical Association. The serum is made by immunizing horses with the toxin produced by the streptococci taken from the woman suffering from the infection. It is injected into the muscles or veins, the amount depending on the severity of the infection. To be effective, it must be given early. It has no effect on peritonitis which may result from this infection during childbirth, so must be given before peritonitis sets in.

Only four of a group of 40 women treated with the serum died, Dr. Lash reported. In a control group of 33 patients not given the serum, 13 died.

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PHYSICS

Ice Cream in Dry Ice Leads to Cleaning Process

BECAUSE Robert M. Greenleaf, Los Angeles mechanic, took his family on a picnic some five years ago, the wool industry is now being stirred by an entirely new and revolutionary method of cleaning wool—the “frosted” process of wool cleaning.

Wool cleaned by this process is whiter, fluffier, stronger, and dyes deeper and brighter than wool cleaned by the more expensive conventional soap, water and picking processes. Already over a million pounds of wool have been cleaned by “frosting.”

In this method, burs, thistles and vegetable matter which become entangled in the wool as the sheep browses for food over fields are literally frozen out of the wool by passing it on conveyers through a large “ice box” in which the temperature is kept from 30 to 50 degrees Fahrenheit below zero. Grease also is removed.

The “ice box” is a room 40 feet long, 12 feet wide and 12 feet high with

walls, ceiling and floor made of nine-inch thick cork.

The low temperature freezes solid the burs and grease on the wool. Strangely, in such frozen state, their hold on the wool is loosened so that when the “frosted” wool is beaten or shaken, the dirt and impurities readily drop away. The whole process takes but a few minutes. About 1,500 pounds of wool can be cleaned in an hour. The cost is less than four-tenths of a cent per pound.

At the time Mr. Greenleaf went picnicking he was trying to design a machine that would get the spiral burs, so common in California wool, out of the raw wool directly.

At the picnic a woolen blanket was spread on the grass for a table cloth. There was ice cream for dessert, packed in “dry ice.” In unpacking the cream, Mr. Greenleaf threw the “dry ice” on the blanket. That was a lucky pitch, for later when picking up the blanket preparatory to returning home, he noticed that the vegetable matter on the ground was frozen to the blanket and when he shook it, the sticks and leaves dropped away like icicles. Instantly the idea of removing burs from wool by freezing entered his mind.

He dashed home to try it; packed dirty, raw wool in “dry ice.” It worked. Later a wool manufacturer became interested, as did certain engineers. A corner in an ice-making plant was rented to carry out large scale research.

Samples of frosted wool were sent to eastern wool manufacturers. Soon the Lowell Textile Institute of Lowell, Mass., set out to perfect the “frosting” process on a commercial scale. Today one of the largest worsted wool mills in that state is using the process.

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PALEONTOLOGY

Cave of Ancient Bones Found Near Boulder Dam

ACAVE containing hundreds of bones of ancient beasts and birds has been found high in the wall of Lake Mead, the artificial lake formed in connection with Boulder Dam. The fossil bones show that the cave was once frequented by ground sloths, big cats, goats, and numerous reptiles and birds. Fragments of hair and hide of the sloths have survived through the thousands of years since these extinct animals lived in America. A reconnaissance survey sponsored by the National Park Service in lower Grand Canyon found the cave.

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ENTOMOLOGY-PHYSICS

Microphone Hookup Detects Insects Working in Wood

LIKE a wartime listening post, where men with microphones and sharp ears pick up information about the enemy by listening to any sounds from the other side, is the instrument for detecting boring insects in timber devised by F. M. Colebrook of the National Physical Laboratory at Teddington, England. It consists of a soundproof box in which the suspected sample is placed, a microphone and amplifying setup, and headset or loudspeaker. Mr. Colebrook describes the gnawing of deathwatch beetle larvae as “a kind of muffled and intermittent rattle.”

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PHYSIOLOGY

Slow-Action Insulin Makes Rats Grow Fat

RATS STUFF themselves and grow fat when they are given daily doses of the new, slow-action protamine insulin, Drs. Eaton M. MacKay and Richard H. Barnes of the Scripps Metabolic Clinic, La Jolla, Calif., reported to the Denver meeting of the Society for Experimental Biology and Medicine.

The male rats got so fat that they had difficulty in turning over when placed on their backs. The female rats got fatter than the males under the influence of the same dose of protamine insulin. In this, the rats resembled their human counterparts. Dr. MacKay pointed out that obesity occurs more often and is more severe among women than men.

This is the first time, with one exception, that scientists have been able to produce obesity in animals in order to have a means of throwing light on the condition in humans. The exception was an experiment of Prof. P. E. Smith of Columbia University who showed that chemical injury to the stalk of the pituitary gland was followed by remarkable obesity in rats.

The insulin-induced obesity is like that which occurs in men and women who get too fat from overeating. The rats got fat from overeating under the stimulation of the protamine insulin. This is the new type of insulin which is giving considerable success in treating certain types of diabetes. Ordinary insulin does not make rats put on weight. When the protamine insulin injections were stopped, the rats stopped eating so much.

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