

A bison wallow, two or three thousand years old, was excavated in eastern Wyoming by Dr. Roberts. It revealed a number of spear points known as "Yuma points," formerly thought to date back to the oldest known inhabitant of North America, the Folsom man who lived at the end of the last Ice Age, 10,000 to 20,000 years ago.

This new discovery, however, places the Yuma points at a much later date, somewhere between Folsom and modern. It may lead to more complete knowledge of the "Yuma man" who used those spear points and thus fill in the gap in archaeological data between the Ice Age and the dawn of history on the North American continent.

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MEDICINE

## Anti-Blood Clot Chemical Successful in Sweden

➤ A COUMARIN compound from spoiled sweet clover, called AP, has been successfully used in patients suffering with thrombosis of the legs, it is reported by Dr. Jörgen Lehmann, of Sahlgrenska Sjukhuset Central-Laboratorium, Göteborg, Sweden (*Science*, Oct. 9).

As the clotting tendency of the blood was reduced, as shown by blood tests, there was improvement in the patient's condition as shown by a fall in temperature and lessening of swelling and congestion. Patients with milk leg were more resistant to the drug and required larger doses than those with other types of thrombosis of the legs. In all cases the course of the disease was shortened and no further blood clots developed.

AP should not be given to patients with kidney, heart and liver disease, Dr. Lehmann warns. Mild toxic symptoms, such as vomiting and diarrhea, occurred in a few cases after the first dose of the drug but seldom after subsequent doses. Liver and kidneys were not affected. Minor hemorrhages occurred in two of the 17 patients but were controlled by one of the vitamin K compounds. Two expectant mothers were successfully treated for thrombophlebitis. Nursing mothers excrete AP in their milk, tests of their babies' blood showed.

The drug can be given, Dr. Lehmann states, with the sulfa drugs, the barbiturates and morphine. It can be given to patients with tuberculosis and pneumonia.

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MEDICINE

## Protein Study Made

➤ IF YOU are hungry for a steak, be glad you don't have to read an editorial, appearing in the *Journal of the American Medical Association* (Oct. 10) which includes such mouth-watering details as sitting down three times a day to eat twelve and one-half pounds of meat.

Dogs ate the meat—in pre-meatless days—during studies on protein deficiency. The studies were made by Dr. L. A. Sachar, Dr. Abraham Horvitz and Dr. Robert Elman, of Washington University School of Medicine and Barnes Hospital, St. Louis, and reported in the *Journal of Experimental Medicine*.

Protein deficiency in the body resulting from protein-poor diets, can be detected and measured simply by determining the amount of albumen in the blood serum, the St. Louis scientists discovered. Their findings and those of other scientists on dogs indicate that there is a constant relationship in the loss or gain between blood plasma or serum albumen and total body protein induced by diet.

From this they developed a formula, believed applicable to man as well as

the dog, which will show the doctor how much protein must be given to a patient in order to replenish the depleted body protein. In one of the studies dogs that had been on protein-deficient diets were given meat *a libitum* to see how fast they could overcome the depletion. Each dog ate daily for two weeks about one-fourth of its body weight in meat, which would be equivalent to twelve and one-half pounds of beefsteak three times a day for the average grown person.

For patients who are severely depleted and must be fed through their veins, the St. Louis scientists believe that human serum or plasma transfusion is unpractical. They suggest instead the use of hydrolyzed proteins of "high biologic value."

The studies and findings should not be taken to mean that plasma or serum transfusions are without value in other conditions. The protein deficiency studied, moreover, is a severe one resulting from a much more limited diet than one with a two pounds per person per week meat allowance.

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MEDICINE

## Winged Shoulder Blade

➤ DISCOVERY of what is apparently the first case on record of winged shoulder blade resulting from carrying a knapsack is reported by Captain F. W. Ilfeld, M. C., U. S. Army, and Major Hall G. Holder, M. C., U. S. Army (*Journal, American Medical Association*, Oct. 10).

The patient, a private, was admitted to the Station Hospital at Camp Callan, Calif., complaining of difficulty in raising his right arm and a prominent right shoulder blade which seemed to "strike the back of the chair" when he sat down.

He thought the condition was due to having "strained" his right shoulder while putting the pack on his back. The doctors found a weakness of the muscle that rotates the shoulder blade and with no other cause that could be found for it, ascribed the condition to "stretching of the long thoracic (chest) nerve in swinging the pack on the back or to

pressure on the long thoracic nerve from the strap of the knapsack against the chest and shoulder."

The patient's arm was supported in a sling and he was given infra-red heat treatment and massage to the shoulder. Slight improvement in muscle power followed within a week and about four weeks later his shoulder blade and its muscle were back to normal.

"In view of the expansion of our armed forces during the present emergency," the Army surgeons declare, "the occurrence of this deformity from such cause, its recognition and treatment are important."

The winged shoulder blade deformity has been reported as long ago as 1825 but the causes of earlier cases have ranged from infantile paralysis and other diseases to injuries from being kicked by a horse, using crutches, and the like.

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