

## Americans to See Eclipse

Dr. S. A. Mitchell, director of the Leander McCormick Observatory of the University of Virginia and veteran of six expeditions to observe total solar eclipses, will make his seventh eclipse trip next summer.

This expedition will be to Norway, where a total eclipse of the sun will be visible for half a minute early on the morning of June 29, 1927. It will also be visible in England, but there it will happen at about 5.30 a. m. and the chances for clear weather will not be as favorable as in Norway. The duration of totality will be shorter, but for the research in which Dr. Mitchell is particularly interested this is not a serious handicap, for he is confining his attention to photographs of the "flash spectrum." Ordinarily, the spectrum of sunlight, obtained by passing it through a combination of prisms and lenses, is a band of various colors, crossed by a series of dark lines. Just before and just after a total eclipse of the sun, however, the light reaching the observer comes from a thin outer layer of the sun's atmosphere, and then the flash spectrum, consisting of a series of colored bands against a dark background, can be seen.

The expedition will be financed by a gift from John Armstrong Chaloner. The scientific importance of making the observations of the flash spectrum arises from the fact that it supplements knowledge obtained from daily work on the sun at such great observatories as Mt. Wilson in California.

"The ordinary spectrum of the sun consists of light of the photosphere absorbed by the cooler layers of the sun's atmosphere," said Dr. Mitchell. "These cooler layers are hotter than any blast furnace on earth, and at the time of a total eclipse they may be photographed as the flash spectrum. One of the important features of the flash spectrum is that it makes known the height in miles or kilometers that each atom in the atmosphere of the sun extends up above the solar surface.

"As the result of solar investigations made at eclipses and at other times it is no exaggeration to state that we know vastly more of conditions in the solar atmosphere, though the sun is over ninety millions of miles away, than we know of the atmosphere of the earth in which we live and move and have our being."

So far as Dr. Mitchell knows, the McCormick-Chaloner expedition will be the only one from the United States to observe this eclipse. The short duration of totality makes it unfavorable for any study of the corona, which surrounds the sun, but is only visible at the time of a total eclipse; or for investigation of the bending of star-light when passing the sun, as predicated by the Einstein theory.

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## MEDICINE

### Concerning Smallpox

I will go into the next severe epidemic with ten selected vaccinated persons and ten unvaccinated persons. I should prefer to choose the latter—three members of parliament, three anti-vaccination doctors, if they could be found, and four anti-vaccination propagandists. And I will make the promise—neither to jeer nor to jibe when they catch the disease, but to look after them as brothers, and for the four or five who are certain to die I will try to arrange the funerals with all the pomp and ceremony of an anti-vaccination demonstration.—*Sir William Osler.*

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## PALEONTOLOGY

### First Fossil Collected

What is probably the first fossil to have been collected by man is in the possession of Barnum Brown, associate curator of fossil reptiles in the American Museum of Natural History. The priceless relic is an elephant's tooth dating back around 5,000,000 years and was picked up by Mr. Brown in the ruins of the Asklepieion, the medical school of ancient Greece, where Hippocrates, the father of medicine, carried on his studies.

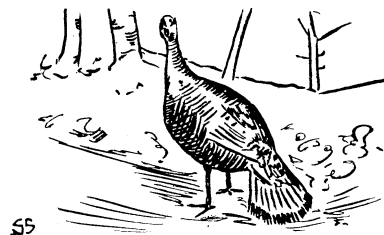
Hippocrates was the first to introduce principles of inductive philosophy in the practice of medicine which had hitherto consisted of a system of superstitious rites practiced wholly by the priests. It is surmised that the great master may have handled and discussed the prehistoric molar himself for it was found covered with fragments of statuary and figurines in one of the larger buildings of the ancient school.

Two sites for fossil remains of elephants exist several miles from the Asklepieion so it is evident that the tooth was carried there at least 2000 years ago since Hippocrates was born around 460 B. C. and his famous school was in ruins by the beginning of the Christian era.

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## NATURE RAMBLINGS

By FRANK THONE



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### Our National Bird

Why the turkey should have been named for one of the Old World countries, and not the nicest one at that, will probably always remain a puzzle. There is no bird so thoroughly, even so exclusively American. He was unknown to civilization before the voyages of Columbus, and Turkey was one of the last countries in Europe to have the privilege of making his acquaintance. Perhaps the amount of red about the bird's head, with the pendulous wattle hanging down one side, suggested the Greek fez which the Turk had adopted as his national headgear.

When the American republic was young, there was much discussion over a suitable bird or animal to emblazon in our heraldry. The selection of the white-headed or bald eagle was much opposed by our most famous ornithologist, Audubon, and by one of our foremost forefathers, Benjamin Franklin. Each in his turn made it plain that the bald eagle is not an especially noble bird. Certainly not a bird of prey, for his favorite diet is fish, and even these he usually obtains by robbing the fish-hawk of the latter's honestly acquired booty. And both Franklin and Audubon insisted that the proper bird for our coins and Great Seals and coats of arms was the turkey: a beautiful, cleanly, courageous bird, living virtuously according to the conscience of a turkey, at least—and not invading his neighbor's rights.

Though other counsels prevailed, there is at least one day in the year—and that the most truly American holiday—on which the eagle must forbear his screaming to make way for the gobbling of the turkey.

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Wheat and barley were cultivated by prehistoric farmers of the Stone Age.

Records of children suffering from rickets show that the disease is practically limited to the North Temperate zone.