



Our Friend the Bat

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WITH THE COMING of warm summer weather, and the arrival in number of insects to eat, bats are becoming more noticeable as they make their noiseless nightly patrols. Because of their nocturnal, and therefore mysterious habits, and because of their preference for homes in caves and dark holes, our ancestors came to regard them as evil and sinister creatures, and equipped their demons with bats' wings, and told wild tales about bat-vampires that sucked human blood.

As a matter of fact, bats are harmless and humorous creatures, and their food habits make them great friends of man. Their dodging, erratic flight through the dusk is occasioned by the dodging, erratic flight of their prey, which consists mainly of insects. Though bats are not blind, but have sharp little eyes that probably see fairly well in the half-light, it is probable that they are guided more by hearing than by sight, for their ears are relatively enormous. It is probable also that some, if not all, bats have a sixth sense related to hearing, whereby they can perceive air vibrations of low frequency, for many of these animals have special organs with large supplies of nerves.

Bats are unique animals in that they are the only mammals that fly. Their wing-bones are really enormous elongated fingers, with webs of nearly naked skin stretched between. If the fingers of a man were stretched out in proportion, they would be nearly four feet long.

The bat photo on the front cover of this issue of the SCIENCE NEWS LETTER is by Cornelia Clarke.

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as barbarous by Chinese stay-at-homes who have not ventured north beyond their Great Wall, Mr. Lattimore finds.

"Social ties, especially in the first years of settlement, are loose," he writes. "Men fail or become discouraged and abscond, and their wives go to other men. Young men drift away for a season of caravan work, and their wives 'lean,' as the expression goes, on other men. Parentage of children is often doubtful, and filial piety is not comparable as a social force to filial piety in China proper."

Everything considered, Mr. Lattimore concludes that "the Chinaman, pushed out of his country by pressure of population and grinding poverty, does not win his way into a better world by emigrating to Mongolia as a pioneer."

For the first few years, the pioneer may have more food to eat. But he has brought traditions and customs of China out to the new edge of civilization. And

that means that in a few generations the community is just as poor and crowded and hungry as it would have been back home.

The reasons, traced by Mr. Lattimore, are two. First, the old story of excessive regard for family, leading to early marriage of sons in order to provide grandsons. A family will contract debts from which there is no hope of recovery merely in order to hasten a marriage. The second handicap is lack of a stable financing system.

"There is no such thing as a safe Chinese paper currency or a safe Chinese bank," writes Mr. Lattimore. "Banks may be ruined and their paper currency rendered valueless by a political upheaval or a civil war."

Until Chinese customs and standards change, pioneers in Mongolia have little chance to escape from these handicaps, it appears.

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ASTRONOMY

Two New Comets Discovered By American and Australian

A NEW COMET has been discovered by Kenneth A. Newman, a young astronomer at the Lowell Observatory, Flagstaff, Arizona, it was announced by Harvard College Observatory, American clearing house for astronomical news.

Mr. Newman first saw the new visitor to our celestial neighborhood on June 1, but he did not report his discovery until he had made the three separate observations needed by astronomers to calculate the orbit of a newly discovered body in the heavens. These observations he made on the nights of June 1, 7 and 20.

Newman's Comet, as the new find will be known, is of the thirteenth magnitude, so faint that it can be seen only with a powerful telescope. Like many of the smaller comets, it lacks a tail.

During the time it has been under observation, the comet has been in the neighborhood of the constellation Serpens, the Serpent. It has been moving toward the northeast, and about June 7 crossed the celestial equator, an imaginary line in the heavens directly over the earth's equator. Its position when last observed by Mr. Newman was, in the astronomical equivalents for latitude

and longitude, right ascension fifteen hours thirty-seven minutes fifteen seconds, declination seven degrees fifty-six minutes north.

The second comet in two days is the unusual astronomical record established by the discovery of one of the celestial wanderers by a young Australian astronomer named Geddes, early on Wednesday morning, June 22. The find was reported to the international clearing house for astronomical news at Copenhagen by Dr. J. M. Baldwin, director of the Melbourne Observatory.

The new Geddes comet lies in the far southern skies, well to the southeast of the constellation of the Southern Cross, and hence cannot be observed by astronomers in the northern hemisphere. It is below naked-eye visibility, being of only tenth magnitude. Its position as reported by Dr. Baldwin was right ascension nine hours fifteen minutes, declination minus eighty-four degrees thirty-six minutes.

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Fahrenheit thermometers owe their name to the inventor, Daniel Gabriel Fahrenheit, who died in 1736.