

To Tin Can Island For 92 Seconds

Astronomy

"It Will End On The Day Before It Starts"

TO "Tin Can Island," a tiny bit of land in the south Pacific Ocean, a party of American astronomers will soon be en route, in order to observe a 92-second eclipse that will be visible there on the morning of October 21.

Speaking recently under the auspices of Science Service through a nation-wide network of the Columbia Broadcasting System, Dr. Samuel A. Mitchell, director of the Leander McCormick Observatory and ranking scientific member of the party, told of the plans for the observations. Though the expedition has been organized by the U. S. Naval Observatory, several other civilian astronomers are members of it.

One peculiar feature of the eclipse is that it will end on the day before it starts. Professor Mitchell explained this paradox as follows:

"The eclipse begins on October 22 by the time kept in Australia and Asia. After crossing the 180th meridian the eclipse by change of date takes place on October 21 by the time kept in the United States. Totality takes place in the middle of the forenoon and lasts 92 seconds."

The Only Place

Professor Mitchell told why a little inaccessible island in the South Seas has been selected as the site for scientific observations of the phenomenon.

"Across the thousands of miles of waters of the Pacific Ocean there is only one small island from which the eclipse may be observed," he said. "This is the island of Niuafou of the Tonga group which lies about mid-

Few people would be willing to go to the trouble of a trip half way around the world on the possible chance of seeing something that will last only 92 seconds. But to the astronomer, to whom the fleeting moments of a total eclipse are of the utmost value, such a journey is not unusual. A champion eclipse observer tells here about his next trip, to be in October. He will visit an island that gets its mail once a month, thrown in a tin can from a passing steamer.

way between the Samoan Islands and Fiji. The Tonga Islands are under the protection of Great Britain.

"The eclipse island generally goes by the familiar but uneuphonious name of Tin Can Island, not because goats thrive there but rather for the reason that the island is volcanic with precipitous banks. There are no indentations in the shore line big enough to make a bay, so it is impossible to keep a boat on the island. The southeast trade winds usually blow and these kick up such a sea that landing on the island from a boat would usually be quite out of the question.

"Hence for these reasons, when once a month the inter-island steamer goes by carrying the mails, the letters and papers for the island are sealed up in a tin can and are dropped overboard. Two natives swim out from shore with a small raft on which is the outgoing mail, also in a tin can. The exchange of tin cans is effected—and

the island slumbers on peacefully for another month awaiting the arrival of the mail boat.

"The island is about three miles in diameter, shaped like a gigantic signet ring, with an interior lake of brackish water lying nearly 100 feet above sea-level. About 1000 to 1500 natives of the Polynesian race inhabit the island and two or three white traders. The chief trade is in the products of the coconut which here grows unusually large.

"A year ago the island was visited by a devastating volcanic eruption which practically wiped out a native village but fortunately with no loss of life. We are told that volcanic eruptions visit the island on the average of only once in every fifteen years. We have faith in these scientific predictions and we have no fears that on the day of the eclipse our observations will be ruined by such disturbances."

Astronomers From New Zealand

Besides the American party, a group of astronomers from New Zealand will travel to Niuafou to take advantage of the 92 seconds of totality. The scientific observations to be made include photographs of the corona, the sun's outer layer which is visible only at eclipse time, through a camera 63 feet long. This will be operated by Dr. Ross W. Marriott, of Swarthmore College.

Other corona pictures will be made with smaller instruments, while photometric measurements will be made of the brightness of the eclipse. Prof. Mitchell himself will be mainly interested in photographing the flash spectrum, or the spectrum of the last sliver of the sun to be seen before the moon covers it and the first to reappear when totality is over.

The astronomers will travel by regular steamers to Pago-Pago in American Samoa, and from there the mine-sweeper, U. S. S. "Tanager," will carry them and their instruments the remaining 300 miles. Comdr. C. H. J. Keppler, U. S. N., will be in administrative charge, so as to leave the astronomers free to devote their entire energies to scientific work.

A Million Insects for Ten Dollars

Entomology

TEN dollars a million for insects! Who'll buy?

The average stung, bitten and be-tched picnicker or camper may ask wearily why anybody should want to buy a million insects at that price when you get more than a million for nothing every time you show your nose out of doors.

But the insects that are worth ten dollars a million are cheap at the price, for they prey on the eggs of other insects, thereby preventing the pests from ever seeing the light. They are the almost microscopic

wasps known as *Trichogramma*, which are reared in captivity by Stanley E. Flanders, entomologist of the Citrus Experiment Station at Riverside, California.

Mr. Flanders has been at this work for some time now, and has improved his rearing methods to a point where the tiny parasites can be produced at a thousand for a cent. They are shipped out in great numbers to orchardists, who release them to assist in their endless warfare on fruit-spoiling insect pests.

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