

Einstein Theory Proved

YEAR-LONG TESTS, believed the most precise yet made, have confirmed preliminary results by the same method that Einstein's special theory of relativity is correct.

The experiments showed no measurable variation in frequency of radio waves radiated by ammonia molecules as the earth moved around the sun during a year. Einstein's special theory postulated that the velocity of light, 186,000 miles a second, is independent of its frame of reference or of the motion of the light source itself. It also applies to radio waves, which travel at the speed of light.

Results of the experiments, conducted at Columbia University at the suggestion of Nobel Prize winner Dr. Charles H. Townes, are reported in *Nature*, a British scientific publication. His associates found that, at most, less than one-thousandth of the earth's velocity around the sun could affect the speed of light propagation.

High precision of the tests was possible by using two masers. The coined word maser stands for "microwave amplification by stimulated emission of radiation." Previous experiments, starting with the classic Michelson-Morley tests, have confirmed Einstein's theory but not as precisely as the present test.

Calculation

"How old are you, little boy?"

"I don't know. Mother was 30 when I was born but now she is only 28."