

EINSTEIN SEES END OF TIME AND SPACE

Destruction of Material Universe Would Be Followed by Nothing, Says Creator of Relativity.

THEORY 'LOGICALLY SIMPLE'

Science Burdened Hitherto by Com- plicated Assumptions, He Asserts— Entertains Many Visitors.

Those persons who may have comforted themselves with the reflection that no matter if the worst happened, and everything material in the universe were destroyed, there would still be time and space in which lonesome and expatriated spirits might wander, did not take Professor Albert Einstein into consideration at all. He said jocularly yesterday having supposititiously destroyed matter by a wave of his hand in which was clutched the omnipresent briar pipe, that under his theory even time and space would then cease to exist.

Professor Einstein said it with a smile, attempting to convey by humor to his puzzled interlocutors a conception of relativity which they had failed to grasp in more abstruse definitions. He is becoming use to having persons ask him to explain what relativity means.

It really isn't as bad as it seems, he explained, and exploded the accepted story that he had said only twelve men in the world were capable of understanding it. He thinks most scientists understand his theories, and added that his students in Berlin understand them perfectly. No theory can be said to be susceptible of absolute proof, he added, and mentioned that an American scientist, St. John, is now conducting experiments which seem to give results at variance with the Einstein theory.

"The two theories, that of St. John and my own, have not yet been brought into harmony," said Professor Einstein. "The subject dealt with is that of the wave lengths in the spectrum. It is impossible at the present stage of the experiments to say what the result will be."

He mentioned this experiment, he said, because he did not wish to seem to claim infallibility for the theory of relativity, and desired to be perfectly fair in his attitude toward the theories of others. The views of Professor Charles Langford, Professor of Astronomy at Columbia, who has said that the Einstein theories cannot be proved and that it is possible to explain all physical phenomena, even the irregularities of Mercury, by Newtonian law, were called to Professor Einstein's attention.

"I did not see Professor Poor's statement," he said. "In a certain sense you can say of any scientific theory that it cannot be proved. No theory can be proved absolutely. Every theory tries to explain certain facts, and it is acceptable in so far as those facts fit into the general conception of a theory. No facts can be said to be explainable by only one theory, and in that sense one might say that the theory cannot be proved."

Professor Einstein was rather puzzled to account for the public interest in his conception of time and space, and said the public attitude seemed to call for a psychologist who could determine why persons who are not generally interested in scientific work should be interested in him.

"It seems psycho-pathological," he said with a laugh.

When it was suggested that perhaps people were interested because he seemed to give a new conception of the universe, which next to the idea of God, has been the subject of the most fascinating speculations of the mind, he agreed that such might be the case.

"The theory has a certain bearing in

a philosophical sense on the conception of the universe," he said, "but not from the scientific point of view. Its great value lies in the logical simplicity with which it explains apparently conflicting facts in the operation of natural law. It provides a more simple method. Hitherto science has been burdened by many general assumptions of a complicated nature."

Two of the great facts explained by the theory are the relativity of motion and the equivalence of mass of inertia and mass of weight, said Professor Einstein.

"There has been a false opinion widely spread among the general public," he said, "that the theory of relativity is to be taken as differing radically from the previous developments in physics from the time of Galileo and Newton, that it is violently opposed to their deductions. The contrary is true. Without the discoveries of every one of the great men of physics, those who laid down preceding laws, relativity would have been impossible to conceive, and there would have been no basis for it. Psychologically it is impossible to come to such a theory at once, without the work which must be done before. The four men who laid the foundations of physics on which I have been able to construct my theory are Galileo, Newton, Maxwell and Lorenz."

Prof. Einstein then mentioned again the two things which seem so far to have proved the correction of his theory, that of the explanation it affords of the irregularities of Mercury and the observation of the solar eclipse, which showed that "rays of light in passing a large body like the sun are deviated by its attraction. This I foretold," he said, "and my prophecy was proved by British scientists."

Whatever the value of relativity it will not necessarily change the conceptions of the man in the street, Prof. Einstein said.

"The practical man does not need to worry about it," he said. "From the philosophical aspect, however, it has importance, as it alters the conceptions of time and space which are necessary to philosophical speculations and conceptions. Just as a joke, however, and not to be taken too literally, it has this effect on any thought of the universe. Up to this time the conceptions of time and space have been such that if everything in the universe were taken away, if there was nothing left, there would still be left to man time and space. But under this theory even time and space would cease to exist, because they are inseparably bound up with the conceptions of matter."

Professor Einstein is so far from being the usual conception, to use one of his own words, of the average man of science that he has made an unusual impression of geniality, kindness and interest in the little things of life on those who have come in contact with him. His room was continually filled yesterday with visitors. Hardly for a moment did he let his new pipe, which promises to become as famous as his theory, out of his hand.

"I shall now treat the other pipes with contempt," he said, caressing it.

With his wife and Professor and Mrs. Chain Weizmann, President of the Zionist organization, he was the guest at luncheon of Samuel Untermyer. The party motored up Riverside Drive and around the city for a time beforehand, and Professor Einstein was much impressed by his first view of New York.

"My first impression was of the kind and hearty welcome all the members of the delegation received," he said, "and my other of the enormous size of the buildings of New York, which give the city the aspect of a mountain landscape. It is also impressive of health and strength, not only in the people on the streets, but in the buildings, the streets, the means of communication—it all seems so sound and solid."

Delegations of Jews interested in the Zionist movement visited the hotel all day. Rooms were crowded with conferences presided over by Professor Weizmann and other members of the delegation. Four representatives of Canadian Zionists, A. Lewin, H. E. Wilder, Dr. John Shane and C. A. Cowen, called to give their greetings. Later the leaders of the Mizrahi, the orthodox wing of the Zionist organization, called on Professor Weizmann. They included Rabbi Meyer Berlin, Rabbi M. Z. Margulis, G. Biblick and Dr. Bluestone. A delegation from Philadelphia headed by Jacob Ginsburg also called. Messages from all parts of the United States and even from some European countries were received.