

## GEOLOGY

# Earth's Core Was the Child Of Two Great Flaming Suns

## New Theory of Earth's Origin Holds that Outer Tenth Was Built Up by Rain of Meteorites from Space

A NEW picture of how the earth was formed was painted for geologists of the American Association for the Advancement of Science in Cleveland when Prof. Kirtley Mather, of Harvard University, summarized his latest conception of the evolution of the earth which began billions of years ago.

First of all the earth was the child of two great flaming suns which came close together and tore from themselves the molten material that was to be the heart of the ball of metals and rocks upon which we now live. In this respect, Prof. Mather's new earth origin hypothesis agrees with the famous planetesimal hypothesis of the late Dr. T. C. Chamberlain, geologist, and Dr. F. R. Moulton, astronomical physicist. And this also agrees with the later ideas of Jeans and Jeffreys, English astronomer and geologist, whose theory that tidal effects gave rise to the form of the earth has received acclaim.

This nebula born of the stars was the embryo of the earth. Dr. Mather believes it contained about nine-tenths of the present mass of the earth. Through eons of time it whirled, hot, molten, devoid of life. To the center of the revolving mass there segregated the

heavy metals, such as iron, nickel and perhaps gold and platinum, which geologists feel sure are there today. The fact that earthquake waves will not pass through the center of the earth makes Dr. Mather believe that dense and heavy as the center is still, it is nevertheless molten even now.

The outer tenth of the earth, according to Dr. Mather's views, was a piecemeal present from the sky. It was built up by a rain of meteorites or shooting stars that bombarded the earth when it was young, adding tons of material to it. Geologists know that the earth is still growing in this way, although the imports from outer space are now less frequent and nearly negligible. This is fortunate, for otherwise whole cities today might be wiped out from time to time by gigantic meteor falls.

Eventually the forming earth cooled and as it solidified on its crust, the processes of what the geologist calls magmatic differentiation, the sorting out of rocks and compounds while still in molten condition, gave the surface of the earth its oceans and continents.

Much later in the life of the earth, the long periods of readjustments of the crust, wearings down and liftings up of

rock layer and the evolution of plants and animals began. Man is absurdly young and a product of the last second or so of earth history when viewed with Prof. Mather's perspective.

*Science News Letter, January 24, 1931*

## ARCHAEOLOGY

## Carnegie Scientists Inspect Maya Ruins

A TOUR of inspection of ruins of the Old Mayan Empire which Carnegie Institution archaeologists have been exploring and restoring in northern Guatemala is being made by representatives of the Carnegie Institution.

Dr. John C. Merriam, president, Dr. A. V. Kidder, chairman of the Institution's division of historical research, and H. B. Roberts, staff archaeologist, reached Puerto Barrios, Guatemala, about January 19. Ruins at Uaxactun, oldest of known Mayan cities, have been the scene of Carnegie Institution excavations since 1926.

*Science News Letter, January 24, 1931*

## PUBLIC HEALTH

## Congress May Pass Infant Welfare Bills

DESPITE opposition in medical circles, it is probable that the Jones-Cooper bill, re-enacting the old Sheppard-Towner law for maternity and infant welfare, will be passed by this session of Congress.

The measure has been passed by the Senate and is now being considered before a committee of the House. It authorizes appropriations of one million dollars per year to enable states to cooperate with the U. S. Children's Bureau in promoting health of mothers and infants, through educational work by mail, visiting nurses, clinics and health centers. Each state must match federal appropriations on a fifty-fifty basis in order to obtain federal aid.

When the Sheppard-Towner act lapsed last year, the Children's Bureau had done this work for seven years, had established 1600 child health and maternity centers in 39 states. Infant mortality and maternal mortality were reduced.

Opponents to the legislation are not only medical men, but some members of congress from those states which are especially jealous of their state rights.

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