

A Science Service Feature.

Intended for use  
Jan. 16, 1926  
but released upon  
receipt

? Why the Weather ?

Mailed Jan. 9, 1926.

By Dr. Charles F. Brooks  
of Clark University.

ORIGIN OF AIR

Where did the atmosphere come from, and how did it reach its present condition? These are the questions for which answers can only be surmised from geological and astronomical evidence of the history of the earth. Whether we prefer the nebular or the planetesimal hypothesis for the origin of our solar system, we believe that gases of various sorts formed an essential part of the ancient parent body, as they do of the sun today. Therefore, any offspring should have had similar gases. It would be difficult to postulate that the earth never had an atmosphere, unless it was once so small and cold as the moon.

Whether the earth had an original atmosphere or not it could have accumulated one from the gases constantly escaping from the earth's crust. Not only are gases being discharged in spectacular manner from active volcanoes, but also they are slowly escaping from the cold surface of the earth. Meteorites are contributing small quantities. Dr. R.T. Chamberlin has estimated from analyses of gases in rocks that at least the gaseous equivalent of all the nitrogen, carbon dioxide, and water vapor of the atmosphere is present in the top 70 miles of the earth's crust. Dr. R.B. Sosman sees in the recently examined reactions of certain iron oxides on cooling a possible means of explaining the existence of oxygen in the atmosphere.

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