Blast of Giant Atom

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Out of a single, bursting atom came all the suns and planets of our universe!

That is the sensational theory advanced by the famous Abbe G. Lemaitre, Belgian mathematician. It has aroused the interest of astronomers throughout the world because, startling as the hypothesis is, it explains many observed and puzzling facts.

According to Lemaitre’s theory, all the matter in the universe was once packed within a single, gigantic atom, which, until ten thousand millions years ago, lay dormant. Then, like a skyrocket touched off on the Fourth of July after having remained quietly for months on a store shelf, the atom burst, its far-distant fragments forming the stars of which our universe is built.

The manner in which certain kinds of atoms explode can be seen easily in a simple experiment. If you take a radium watch into a dark room and look at the dial through a magnifying glass, you see what appears to be a brilliant display of microscopic fireworks. While you are looking at the showering sparks, remember that each flash comes from an exploding atom. In each spark, you see a small-scale reproduction of the new theory of the birth of our universe.

On the average, every radium atom lies dormant for about 1,730 years, after which time it explodes and shoots out particles in much the same way as the parent atom gave birth to the stars.

The new theory provides an explanation for one of the most extraordinary scientific facts ever discovered. Our telescopes show us that there are, out in space, millions of disk-shaped star-clusters known as extra-galactic nebulae. It is generally believed that our Milky Way is such an object and that our sun is but one of billions of stars that go to form it. One of the larger members of the class, the spiral nebula in Canes Venatici, is so far away that light from it takes almost a million years to reach us. Furthermore, observations indicate that every second it moves still further away from our solar system by some 170 miles.

For every large, bright nebula there are thousands of small, faint, and presumably much more distant ones. Surveys out to one hundred million light years are in progress. The extraordinary feature referred to above is not, however, the magnitude of the figures, but the discovery that the more distant the nebula the more rapid is its motion in a direction away from us! The present record-holder is a tiny nebula whose cosmic speedometer registers in excess of twelve thousand miles a second.

Why, astronomers have asked, are the