

THE ORIGIN OF THE UNIVERSE

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For more than a century astronomy was but an appendix to physics. Little development was expected since the days of Copernicus, Kepler and Newton. Recently, however surprising discoveries have been made, bringing about new problems and new theories. Fr. Miller of the Manila Observatory presents three ideas on the origin of the universe: the steady state, the "big bang," and the pulsating universe. All these viewed side by side with the biblical idea of creation, lead the author to conclude that no incompatibility exists between the Bible and modern cosmogony.

The origin of the universe is really the concern of what the moderns call cosmogony. So soon as a religious man thinks of the creation of the world, the following words of the Book of Genesis come to mind, "In the beginning God created heaven and earth, and the earth was void and empty and darkness was on the face of the earth, and God said, 'Let there be light,' and light was made, and this was the work of the first day."

There have been those who have tried step by step to go through the first chapter of Genesis and reconcile it with the most modern concepts of creation or of the origin of the universe. However, there is no educated man today who would defend the literalness of that account. The meaning, the import, the message given by Genesis was, and is, that God is the first cause. He is the efficient cause. He brought the material through his action into existence. He is the final cause. He saw ahead of time in his mind what He wanted to produce, before He produced it. He is the uncaused cause of creation as it is shown, picture by picture.

No man living at the time of the writing of Genesis could have understood Einstein's equation, $E = mc^2$, nor anything about nuclear reactions. This has been known only for the past fifty years. God is not primarily trying to teach science. No one then knew about gravitational forces, nor about galaxies. Harlow Shapley, a contemporary, was one of the first to understand galaxies clearly. No one knew of