

caused tremendous heating, both of the upper atmosphere and of the planetoid's surface. Much more serious would have been the compression and heating of air ahead of the missile. At the moment of arrival of the planetoid at the earth's surface, this intensely heated air, blocked by the sudden encounter with the nearly incompressible crust of the earth, would be forced out with terrific violence to all sides. The resulting hot wind would doubtless relegate hurricanes and tornadoes to the limbo of mild zephyrs by comparison. One shudders to think of the result had the

great Siberian meteorite arrived a few hours later, striking a point in southern Sweden.

Periodic claims by air pilots that they have been compelled to dodge meteors are scouted by Prof. H. H. Nininger, secretary of the aforementioned society, whose data indicate that none of the heavenly missiles came within twenty miles of any aircraft. Furthermore, the normal speeds of ten to fifty miles per second, ascribed to meteors on entering the earth's atmosphere, would scarcely give time for even a trimotored ship to "duck" out of the way.

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PHYSIOLOGY

Ectogenetic Babies Are Still Far from Human Realization

Doctor Gregory Pincus, Who Developed "Unfathered" Rabbit Eggs in Glass, Frowns on Imaginative Hopes

BABIES born in a bottle (or produced "ectogenetically," to use a more learned-sounding word) are still very far from human realization, Dr. Gregory Pincus of Harvard University emphasizes. Dr. Pincus is the young biologist who has created something of a stir even outside biological circles by starting the development of rabbit ova, or eggs, in glass dishes without the intervention of the male elements, or sperm cells.

These "unfathered" rabbit eggs were induced to start the normal processes of division and differentiation by treating them with salt solutions more concentrated than normal blood, and also by heating them to a temperature of 45 degrees Centigrade, which is about 113 degrees on the commonly used Fahrenheit scale. When this treatment was first applied to the unfertilized eggs of such creatures as sea urchins and frogs by Dr. Jacques Loeb, about a generation ago, the resulting "parthenogenetic," or "virgin-born" organisms were the center of a whirl of popular interest comparable only with that aroused by the advent of the Dionne quintuplets in our own day.

But Dr. Pincus frowns upon any tendency to read into his experiments and their results the dreams of such imaginative scientists as J. B. S. Haldane, who predicted that some day babies would be produced in bottles of suitable nutrient fluids outside human

mother's bodies. He states:

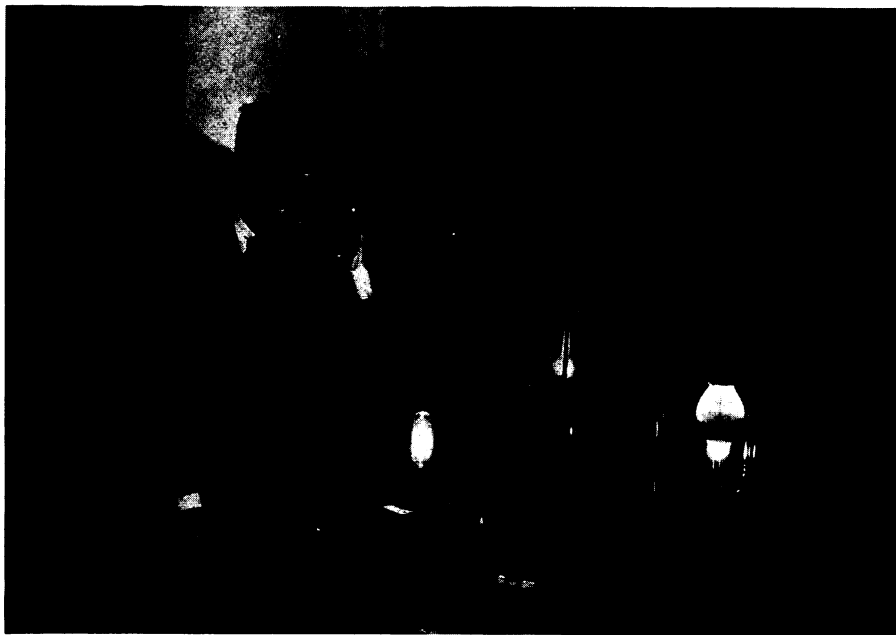
"Rabbit eggs subjected to the described treatment have behaved as though fertilized, and to date have followed development to early blastocyst

stages, both in vitro and in vivo upon transplantation into recipient females after treatment. A more extensive statement is not justified."

Reduced to non-technical language, this means that the chemically or heat-treated rabbit ova have gone through only the very earliest stages of development, either in the glass dishes in the laboratory or when re-introduced into the bodies of "foster-mother" rabbits after suitable preparation. A blastocyst is that early embryonic stage of an organism that consists essentially in a hollow, fluid-filled sphere of cells, only one layer thick. It has as little visible resemblance to a rabbit—or a human baby—as can well be imagined. Yet all living higher animals, including ourselves, were once blastocysts.

Whether mammalian eggs can ever be carried past this blastocyst stage, to eventual birth and full growth, Dr. Pincus is not yet prepared to state. Early stages of growth seem to be fairly easy to start under a number of different abnormal conditions, but mortality is high in all of them—100 per cent. in many. Whether these artificially activated rabbit eggs can eventually be made to leap that lethal hurdle is a question that only further experimentation can answer.

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EVOLUTION OF ARC LIGHT

The new "peanut" light (left), developed by the Westinghouse Lamp Company, is claimed to be man's brightest source of light. A small globule of metallic mercury, in a tiny quartz tube about the size of a roasted peanut in its shell, vaporizes when submitted to an electrical discharge, and sets up a brilliant glow of light similar in color composition to that of sunlight. Dr. John W. Marden, Westinghouse research scientist, is comparing its light with that of a replica of the original carbon arc light developed by Sir Humphry Davy in 1813, (center) and a replica of Faraday's original mercury arc light dating back to 1835.