

Most areas in the United States characterized by selenite fragments have annual rainfalls of from five to fifteen inches (125 to 375 mm). Obviously none of the fragments can lie on the surface for any great number of years and still remain bright and glistening, since they will be gradually dulled by solution. Even this short time is long compared to the few minutes necessary for frosting by the sandblast.

Hence it is safe to conclude that bright, glistening fragments or crystals signify an absence of effective wind action. The presence of these fragments of selenite in the vicinity of niches and pedestal rocks, such as occur at so many localities in the Cretaceous, Jurassic and Triassic areas of Western United States, might be used as indicative of the general absence of effective wind scour.

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ARE PLANETS RARE?

THE latest statement of Professor Arthur H. Compton as reported in the *Literary Digest* under the title, "Science's New View of Evolution," should not be allowed to pass without comment.

That a directive intelligence is evident in the universe is undoubtedly held by a great majority of scientists; but that the new principle of uncertainty "which disputes the uniformity of the physical world" supports this view many of us might be disposed to question. The unity of the universe, as shown by the absolute unchangeableness of natural law, has been held from the time of Newton to be one of the strongest arguments for the existence of God.

Leaving this aside, however, I seriously question Professor Compton's statement in regard to the rare occurrence of planets. He says, "Though astronomers tell us that there are millions of millions of stars in the sky, a planet is a very rare occurrence, and a planet on which life can exist is even more rare."

No telescope, unfortunately, will show us the planets of other suns. Our views on the subject must be based on what we find in our own system. Here we have eight major planets revolving about the sun, and six of these have satellites forming miniature solar systems. Does this look as though such systems were a freak of nature—a rare occurrence? That double stars have planetary systems may be doubtful, but there is absolutely no reason for the assumption that the formation of families of attendant worlds may not be the ordinary course of evolution for the single stars.

As for life on these worlds, we have in our system one out of eight that is fitted for the support of life, and another, Venus, which may be habitable. Why should the proportion be different throughout the universe? Surely the success of the noble experiment of life on the earth has not been so notable that we may not hope for better results elsewhere.

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THE CINCINNATI OBSERVATORY

VIABILITY IN EGGS OF *Aedes campestris* DYAR AND KNAB (CULICIDAE)

ON July 12, 1928, adults of *Aedes campestris* were caught as they came to feed, allowed to engorge and then isolated over water. Four days later eggs were laid. These were placed in pond water in tightly stoppered glass vials and stored in a cold chamber in which the temperature fluctuated between 0° and 10° C. In March, 1930—twenty months after they were laid—the vials were unstoppered and placed at 22° C. Within twelve hours about 25 per cent. of the eggs hatched, and during the ensuing five days several additional eggs hatched into healthy, vigorous larvae, which duly matured.

Aedes campestris constitutes one of the dominant species in the plains areas in Montana, and this remarkable viability of the eggs merely complicates the problem of efficient control.

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THE MITOSIS FOUND IN HYDRA

THE endoderm and ectoderm of hydra each present epitheliomuscular and interstitial cells. The mitosis occurring in epitheliomuscular cells is quite typical for a dividing metazoan cell. The interstitial cells, however, present a mitosis that is more primitive. The mitotic figure of an interstitial cell lacks asters, centrosomes and centrioles, despite the fact that spindle fibers converge sharply at the poles. Moreover, the primitive condition of the mitosis of the interstitial cell is seen in the fact that the prophase appears within the original nuclear area. A marked characteristic of the mitosis of the interstitial cells is that its spindle fibers persist even after the daughter nuclear membranes have been formed. The daughter cells themselves are linked together by a persistent spindle. This vestigial spindle eventually disappears and the daughter interstitial cells lie contiguous but free.

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