

Phases of the Moon		
		E. S. T.
New Moon	October 8	10:05 a. m.
First Quarter	October 15	2:29 p. m.
Full Moon	October 22	10:01 a. m.
Last Quarter	October 30	3:22 a. m.

the 7,900 miles of the earth. The rings, however, are far larger than any planet, for the outer one is 170,000 miles in diameter, and the entire system is about 43,000 miles wide, so that five earths might roll about on them, side by side, without touching. So if you have any

opportunity at all, look at Saturn through a telescope and you will be sure of an interesting sight. Perhaps, like many observatory visitors, you will be surprised to find that it "really does look like the pictures."

Science News Letter, October 6, 1934

PATHOLOGY

Filterable Virus Activity Ruled by Host Cell

WHEN a filterable virus invades a living cell and starts its disease-causing activities, it apparently enters into a very close relationship with its involuntary host. For the rate of activity of the virus depends to a large extent on the rate at which the cell is conducting its own life activities.

This was among the points discussed in a recent address on these strange invisible disease-causing agents by Dr. R. Manninger, director of the State Institute of Veterinary Hygiene at Budapest, Hungary, before the Twelfth International Veterinary Congress in New York. These filterable viruses can not be seen with any microscope and can

pass through the pores of a fine porcelain filter. However, since it has been recently discovered that many quite familiar, microscopically visible bacteria have the power of "dissolving" themselves into an invisible, filter-passing phase, Dr. Manninger suggested that the name "filterable virus" has lost its original significance, and he proposed instead the name "ultravirus" for the permanently invisible, filter-passing agents of disease.

At the same meeting, Dr. F. Gerlach, director of the State Institute for Animal Hygiene at Mödling, Austria, called attention to the seemingly greater activity by these viruses in provoking liv-

ing tissue to form defensive "antibodies" of the nature of anti-toxins. These anti-viruses, he said, are formed more certainly, and confer longer and stronger immunity on animals recovering from virus diseases, than is the case with the corresponding process in animals recovering from bacterial diseases. The reason for this phenomenon, he added, is still quite unknown.

Although the filterable viruses, or ultraviruses, have been known for a long time as the causes of a great variety of plant and animal sicknesses, their real nature is still in doubt. In some respects they act like non-living enzymes or digestive ferments, in others, like genuinely living organisms. For this reason the non-committal name "virus-enzymes" has been proposed for them.

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also the possession of positive and desirable qualities is increasingly necessary to measure the desirability of future immigrants.

When we analyze our recent immigrant groups in regard to assimilability and inborn quality, is it primarily the matter of race or of the individual worth which counts? The answer is "both"; race for general assimilability, hence the quota-allotment of numbers of immigrants annually admissible for each of the several foreign countries; and individual quality to make sure that the applicant for admission is no criminal, or potential inadequate who would become a member of any of the socially incompetent groups, but above all that the family-stock which produced the particular would-be immigrant is sound physically, mentally and in character—a stock which has produced many other individuals of the sort which the best Americans would like to see marry their own near-kin—for this is what will happen in the long run.

If the responsible American citizen, who decides American immigration policy today, could look only a few generations into the future he would find that his own great-great-grandchildren would, very likely, trace back in their ancestral tree not only to the distinguished gentleman who helped to determine present immigration policy but also to the immigrant whom he admitted.

It is sound biology to fight for American ideals.

Science News Letter, October 6, 1934

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