

the remainder Austrian and Rumanian Jews.

"The average time interval between first children and second female children was 35.10 months, but for second male children it was 31.85 months. The difference between these averages is 3.25 months. There is only one chance in more than five hundred million that this difference is due to random sampling. Comparison of all the birth intervals of the two groups rather than the averages shows there is only one chance in about eighty billion that the two differ in a purely chance manner.

"A similar study of 507 related families of an old New England stock tended to substantiate the above result indicating the phenomenon is not peculiar to Jews."

From the study of the mechanism of heredity that has been undertaken by scientists during the past twenty years, equality in numbers between sexes is expected, Prof. Fish explained. Inequality, however, is observed. More male than female children are born. Mixtures of different nationalities produce a greater percentage of male children than the pure parent stocks. There is an excess of male births among first children that is greater than the excess of male births which occur later in the family. These things point to influences outside and inside the reproductive cells which tend to modify the sex ratio.

ASTRONOMICAL MIST CLEARED BY MATHEMATICS

The mystery of nebulium, the strange gas supposed to exist in comets, nebulae, and certain stars, is being dissipated. Prof. Harvey B. Lemon of the University of Chicago has made discoveries which indicate that there is probably no such element in the universe and what has been taken for it is merely helium in disguise.

Spectroscopists, who detect the make-up of stars and other things by analyzing the light which comes from them, have long been worried by lines in the nebular spectra, which did not agree with those of any substance known on earth. A bright green line was especially characteristic. These strange lines have been attributed to an unknown element of light atomic weight which was called "nebulium" after the nebulae in which they were found. Ideas about nebulium have, however, become even more nebulous; for modern work in physics and chemistry seem to indicate that there could be no light weight element not already known.

In addition to the so-called nebulium lines, most of the nebulae show the well known lines characteristic of hydrogen and helium. Thinking that one or both of these elements might possibly cause the lines of nebulium, Prof. Lemon applied to them the algebraic formulae which had been found to fit the lines of many other spectra. According to his mathematics, the unknown nebular lines attributed to nebulium lie on the same parabolic curves as the spectral lines of a helium atom which has had one electron knocked out of it. The reproduction of the nebulium lines has never yet been accomplished in the laboratory, but Prof. Lemon thinks his figures give a clue for experiments which may prove fruitful.

READING REFERENCE - Gregory, Sir Richard. The Vault of Heaven. New York, E. P. Dutton & Co., 1924.
