impossible in other sunny lands, could we hope that our land would prove an exception to this historic rule? Such were the questions that started my investigation of this matter.

In discussing this question we find the literature upon it very scant. Von Schmacel, a German, has made an interesting study of the pigmentation of the skin of races which have their habitat in sunny lands. There is also an ever increasing current literature upon the effects of light waves upon animal tissues, and especially of late as to the therapeutic effects of certain radio-active substances. Two Frenchmen, Bohn and Marre, have written upon the effects of sunlight on white men, and their theories have made a profound impression in Europe. Perhaps the most important contribution to the literature of the subject is a book I found in the course of my research called "The Effects of Tropical Light upon White Men" by Major C. E. Woodruff, U.S.A. It is to this investigation that I am particularly indebted for the technical part of this paper. Isaac Taylor's "Origin of the Organs" is also of great value.

I will discuss the following points:

1. The effect of light waves upon living organisms.
2. The pigmentation of the skin of races whose native habitat is under sunny skies as a defence against the destructive effects of sunlight.
3. The pathology of sunny lands colonized by white men.
4. Some practical suggestions as to therapeutics and the habits of white men living in the west.

1. A brief resume of our present knowledge of light rays may be helpful. You are familiar with the new conceptions of matter which have arisen as an outcome of the study of certain radio-active substances. Instead of the old conception of matter as composed of indivisible metaphysical units called atoms, the idea now holds that atoms are themselves composed of smaller particles called corpuscles or electrons, which dash to and fro within the atom and revolve with inconceivable velocity. You know how under the conditions of Crooke's tube an electric spark will produce a dissociation of these corpuscles which then rush forth in a stream and produce ether stresses which are known as Cathode rays. Certain substances such as radium seem to have the power of giving forth a constant stream of corpuscles, producing stresses which are known as Becquerel rays. We use the word "stress" because this seems to be what is produced when a stream of corpuscles is started or arrested—a stress is given to the ether which is carried outward with the velocity of light. These stresses follow one another at intervals, and the length of these intervals, or waves to use the old term, constitute or determine the character of