

they occur on certain rainy days, even when passing through wheatfields. While staying in the Harz Mountains in July of that year he also noticed that he was free from attacks while in the forest, but on going into the higher uplands where the grasses were still in bloom he at once suffered. In view of these observations, he, during the critical period of the next year, that is, for about six weeks in June and July, he kept the windows and doors of the room in which he lived and worked tightly closed both day and night. In spite of the increase in heat, he was quite free from attacks of hay fever; and he found that his general health did not suffer as much as usual during that time; that he was, in fact, surprisingly well. He found, too, that on still sunny days he could take quite a long drive without suffering for it. This experiment alone should serve as a very valuable suggestion to many hay fever patients who are unable to escape to the mountains or other immune spots.

Dr. Dunbar was now thoroughly convinced that the cause of the disease was certainly not a micro-organism which having once infested the mucous membranes of the eye and nose, increased there and produced the disease with its most unpleasant symptoms, but that whatever produced the disease was something which was carried by the wind and which acted as a definite irritant, and that the attack was only prolonged by renewed supplies of that irritant. He felt further that the etiology could not be considered as proved until one went further than Blackeley had done and had isolated the irritant in a pure state, and had caused by its action on the mucous membrane typical hay fever attacks, with symptoms objective and subjective, not only during the critical time of year, but also beyond or outside that critical period independent of weather or temperature, and had shown that this isolated irritant affected only hay fever sufferers and not normal individuals. With the problem thus clearly presented to his mind he gathered the pollen of grasses and flowers in a pure state. In order to do this he found that various devices were necessary. Specimens of any species of grass were carefully gathered when in bloom and with the aid of forceps their anthers were carefully removed and placed in a sterile glass dish with a cover. This dish was then shaken and the pollen fell out and appeared as a very fine yellow powder. A microscopic examination was always made to ascertain whether the pollen was unmixed with that of other grasses or plants. The pollen grains of plants differed widely in their form and size, some being prickly, some smooth, some oval or round, some with distinct corners and angles. Another method that was also used frequently was to stand the plants in water in a narrow room, and at the end of some hours surround them