

Trachoma Germ Found

Once more modern science scores against disease. The isolation of a small bacillus, believed to be responsible for trachoma, the disease that has blinded thousands of Indians, has just been announced by Dr. Hideyo Noguchi, of the Rockefeller Institute for Medical Research, New York.

Five Indians with trachoma from the Albuquerque Indian School, whose eyes had been operated on, furnished the cultures with which the Japanese scientist was able to produce the disease in monkeys. From these he recovered the germ and inoculated other chimpanzees that in turn developed the characteristic inflammation of the eye. This is considered rather conclusive proof that the guilty organism has been found. A preventive vaccine and curative serum have not developed but this is the next logical step in the investigation of the disease.

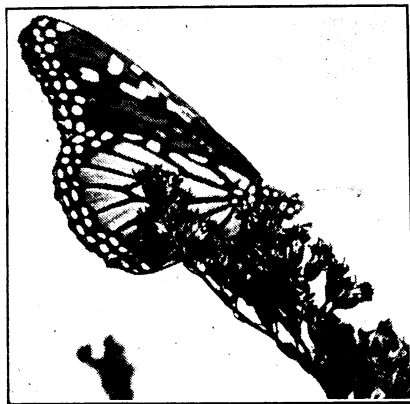
Dr. Noguchi became interested in the trachoma problem through the instigation of Dr. F. I. Proctor, of Boston, and began his research with the cooperation of Dr. Polk Richards, of the U. S. Office of Indian Affairs, less than a year ago.

Trachoma is a disease of unhygienic living, widely prevalent in Egypt, Asia and among the Indians of this country. It is one of the few diseases that absolutely prohibit an immigrant from entering the United States. Of 38,111 Indians in the Southwest examined for trachoma in the fiscal year ending June 30, 1925, 7236 were found to be suffering from it and among these it was found necessary to operate on 4,285. About 19 per cent. of the Indians of the Southwest, it has been estimated, are afflicted with the disease.

This first step in the conquest of trachoma was hailed as a major medical achievement by doctors and scientists at the recent meeting of the American Medical Association. Dr. Noguchi already has several disease germs to his credit, having isolated and cultivated the causative organism of yellow fever and made important contributions to the subduing of syphilis, smallpox, rabies and oroya fever.

Science News-Letter, May 28, 1927

Doctors at the University of California are studying otosclerosis, a little understood disease of the ear causing deafness, to see whether diet affects the ear bones.



THE FAMILIAR MONARCH BUTTERFLY, known to everybody raised in the country. He has an extensible brush of hairs on the last segment of his body that act like an atomizer instead of the usual patches of scent scales on the hind wings.

Insect Sense of Smell

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through which a nerve passes. These olfactory pores are located all over the body, but chiefly on the legs and mouth parts. With so many hundreds of delicate sense organs no wonder these small creatures can put us to shame.

The human device for smelling is more localized and complicated, but nowhere as effective. It consists of a small saddle-shaped membrane lining the roof and sides of each nasal cavity. It is covered with a single layer of cells and tiny glands. The real terminal olfactory organs are long narrow cells packed in between the others, which send up to the surface delicate rod-like filaments and connect at their lower ends with the main olfactory nerve running to the brain. The little glands are simple moisture-producing affairs which serve to keep the whole tract moist, for if the olfactory membrane is dry its smelling capacity is much impaired. We can't smell when we have a cold because this surface is covered with a layer of mucous which prevents the odors from reaching the olfactory cells. Their ability to sustain sensation is very brief. The first moment of contact with a new odor is the most acute and the sense is quickly blunted or, as the psychologists say, fatigue sets in. Chemistry students, for instance, never seem to realize the unpleasantness of the characteristic odors of the laboratory that always raise loud protest from the uninitiated.

Due to centuries of living under artificial conditions man has come to depend very little on his nose. As he has used it less it has become more

and more ineffectual, and very little has been done to classify even the odors that he can smell!

The Triangle of Odors

According to one theory, Henning's system of olfactory qualities, odors are arranged in a qualitative continuum similar to the spectrum, except that a triangular prism is the basis of the arrangement. That is to say, in plain English, that every smell can be arranged with respect to its similarity to other smells on an imaginary prism at the corners of one end of which we have fragrant, ethereal and putrid, and at the corresponding corners on the other end, spicy, resinous and burned. These six odors may be likened to the six primary colors. Since this is a chemical theory the character of an odor is thought to depend on the structure of the molecule of the stimulus, though it is likewise dependent on the nature of the elements of which it is made up. The whole thing has not been completely worked out, and is not a particularly satisfactory classification, some of the primary or simplex, odors, as Henning calls them, being too nearly alike, as ethereal and spicy.

A Musical Scale of Smells

Dr. Septimus Piesse, a French chemist, has worked out an idea much more appealing to the popular fancy. He advocates a scale of odors corresponding to a musical scale, the heavy odors being the low notes and the sharp pungent ones the high notes. Harmonically speaking, we should only have bouquets that do not discord.

When we want an ideally blended bouquet we should consult the musical scale of smells and select, for example, the "do" combination of sandalwood, geranium, cassia, orange flowers and camphor. Doesn't that intrigue the senses? What a tip for the perfumers! The big companies should all maintain experimental psychologists to work out their problems scientifically. In such case we would never get the olfactory clashes that arise ad nauseam in offices, movies, street cars, etc., when the youth and beauty of the nation takes out its lipstick and compact.

Perfumes of Antiquity

In earlier days it would almost seem as if men took in more sensuous joy through their olfactories than do we of the present age. The ancients were keenly appreciative of the pleasures of the nose. Don't we all remember myrrh, frankincense, and nard as the

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