shellac and clear varnish an appearance is obtained that is both pleasing and in harmony with other laboratory furniture.

The specimen pack is prepared for drying, as in other cases where heated air is utilized, by separating the specimens from each other with corrugated strawboard, the corrugations running, of course, the short way of the pack, so as to be vertical when the pack is set in the drier. After being strapped tightly between press-boards or lattices, the pack is set on edge in the drier, the sliding shelves adjusted to its sides and the electric current turned on. The rate of drying can be controlled by the size of lamp used.

In our hands, this drier has proved very satisfactory indeed. It is, first of all, a complete and independent unit. As it occupies but little space, it can be conveniently installed in a crowded laboratory. Requiring only to be connected with an electric current, it is always ready for use, and large or small sets of specimens can be handled in it with equal facility. A full pack of wet aquatic plants can be dried in from eight to ten hours by using two 100-watt lamps. There is, moreover, no danger of fire, and the specimens are not subjected to scorching or overheating.

L. R. TEHON

ILLINOIS STATE NATURAL HISTORY SURVEY

SPECIAL ARTICLES

DIRECT TRANSMISSION OF HUMAN TRACHOMA TO THE MONKEY

IN previous notes we drew attention to the successful transmission of experimental trachoma from monkey to monkey by (*a*) simple caging together of infected and uninfected *Macacus rhesus*,[1] (*b*) by repeated swabbing of the normal conjunctivae with the secretions from the experimental lesions in *Macacus rhesus*[2] and (*c*) by the repeated instillation of cultures of *Bact. granulosis* into the conjunctival sac of normal rhesus with subsequent massage of the eyelid.[2] The last method is, of course, not an example of monkey to monkey transmission except in respect to the principle of eye to eye conveyance.

In this note we are reporting two instances of direct transmission of trachoma by means of secretions from human cases to normal *Macacus rhesus*, which showed, previously to the swabbings, smooth conjunctivae. For the materials and effective cooperation we are indebted to Dr. Martin Cohen, of New York.

The cases consisted of two white persons residing in New York. Case A had suffered from trachoma for ten years. The lesions were characteristic, consisting of granulations, extensive scar formation and pannus. Case B had suffered from the active disease for two years. The lesions consisted also of granulations, scars and pannus.

The secretions from each case were taken on cotton swabs and transferred directly, by gentle rubbing, to the smooth conjunctivae of each of three monkeys. Nine swabbings were made from man to monkey in Case A and seven in Case B.

Thirteen days after the last swabbing from Case A, one monkey showed granular lesions of experimental trachoma, and thirteen days after the last transfer from Case B the three respective monkeys presented typical granulomatous changes.

Conjunctival tissue was removed from Case A for curative purposes by Dr. Cohen and employed for direct subconjunctival injections in three further normal *Macacus rhesus* presenting smooth conjunctivae. Within four to ten days, all three developed granular lesions of experimental trachoma. The excised tissue was also employed for bacteriological study. Cultures of *Bact. granulosis* were isolated, and these when injected subconjunctivally into three normal monkeys induced in all experimental trachomatous changes in nine to eleven days.

Finally, granulomatous tissue removed from the monkey infected by swabbing from Case A yielded cultures of *Bact. granulosis*.

The direct transmission of trachoma to monkeys has already been effected by several investigators,[3] but the present experiments are the first in which both transmission and the isolation of *Bact. granulosis* have been successful with the same trachomatous material.

PETER K. OLITSKY
JOSEPH R. TYLER

THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH, NEW YORK CITY

ASSOCIATION AND CONSTITUTION

THE study of the properties of compounds has unfortunately not yet made it possible to predict the properties of associated compounds with any degree of success. It now appears that the association as measured by the fluidity method varies regularly in a given homologous series, so that the association itself

[1] J. R. Tyler, SCIENCE, 70: 612, 1929.

[2] P. K. Olitsky and J. R. Tyler, SCIENCE, 71: 263, 1930.

[3] For literature see: H. Noguchi, *Jour. Exper. Med.*, Supplement No. 2, 1928, xlviii; and V. Morax and P. J. Petit, "Le Trachome," Paris, 1929.