

Of course expression is physiological primarily, but more or less separate from its emotional side, there are a number of purely physical conditions either permanent or transitory which influence to a large degree our judgment of character. The appearance of good or ill health and the changes which may take place in a face due to the adaptations of the body to environment. Under the last come such changes as might take place in the nostrils with variation in altitude, in the development of the jaw muscles due to change of food, and many others.

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OCURRENCE OF EUTHRIPS PYRI DANIEL IN
NEW YORK STATE

FOR several years pear growers in various localities in this state have observed a peculiar blighting of blossoms, which is usually attended by a considerable loss in the fruit yields. In some orchards where this condition has prevailed the crops for the past three years have been almost complete failures. This spring we received specimens of injured blossom clusters from Germantown and other localities along the Hudson River, and we have found that an insect is responsible for this damage. It is known as the pear thrips (*Euthrips pyri* Daniel), and for the determination of the species we are indebted to Dr. W. E. Hinds, of the Alabama Polytechnic Institute. The insect has attracted considerable attention in recent years in California because of its destructiveness to various deciduous fruits, but its occurrence in eastern states was not suspected. The adult is a small, brown, winged insect, about one twentieth of an inch long, which makes its appearance when the buds are opening, attacking the tenderest of the flower parts. Pears, especially, seem to be very susceptible to the attacks of the thrips, and many blossoms are killed before the clusters open. This pest has proved a difficult one to control by spraying, but tests which we have conducted indicate that the thrips may be efficiently combated by slight changes in the scheme of spraying

which we are encouraging growers to adopt for the control of the pear psylla.

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BLUE STAIN ON LUMBER

EACH year a great deal of money is lost by lumber companies through the staining of the freshly cut sap yellow pine and red gum stacked in the mill yards. One of the commonest of these stains is the so-called "blue-stain," which is caused by a number of fungi, many of them belonging to the Pyrenomycetes, especially *Ceratostomella* and *Graphium*. This stain is usually blue or black, due, very likely, to the presence of the brown-colored mycelium which grows in the cells of the sap wood only, and does not injure the strength of the wood. The hyphæ of the fungi live on the food stuff within the wood cells and do not destroy the walls of the cells. It is the stained appearance of the lumber which seriously decreases its money value.

The lumber companies try to prevent this stain by various methods, a common one being to dip the freshly sawed lumber into a solution of either sodium bicarbonate or sodium carbonate. This soda dipping process is still uncertain in results; at one time preventing the blue-stain from appearing on the wood, at another having no beneficial effect.

The varying and often unsatisfactory results obtained in the mill yards where soda dipping has been tried, led to certain investigations being taken up in the laboratory. The problem was to find why the soda solution sometimes prevented the growth of the wood-infecting fungus and its spores and sometimes did not. Since the factors determining the growth of *Ceratostomella* and of *Graphium* are as yet imperfectly understood, it was thought that a better knowledge of the relation of the fungus to its substratum might lead to a more satisfactory method of destroying it.

As it is well known that many fungi grow best on a slightly acid substratum, it was thought that the growth of the blue-stain