



Small Worlds Around Us

By Lynn W. Watkins

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Tiny Aphids Produce Basis For Fine Furniture Shellac

It has a strange beginning and a mighty peculiar background, the orange colored, resinous material you buy in a hardware store under the name "shellac." Actually, it comes from bugs, not a single one of which is larger than a kernel of rice.

They are aphids that spend their lives on the branches of plants, sucking from the vegetable tissues the sap that feeds the tree. Those aphids that form the basis of shellac feed on the banyan trees, a native of India.

In the leaves, branches and aerial roots of a banyan tree there is plenty of room for billions of aphids, for this tropical tree reaches gigantic proportions. One Indian tree is said to have sheltered as many as 3,000 trucks, and at least 7,000 people can easily find shade under its branches. In those countless twigs, leaves and branches an unlimited number of tiny plant aphids can find grazing room.

Delicate Insects

The aphids, whether in a banyan tree or on the bushes of your own front yard, are delicate little insects. They are soft-bodied and defenseless—all very lazy, barley moving from one place on a limb to another. They all have very big stomachs and very small heads. They eat lustily and produce living young in vast numbers.

A single aphid, if left alone and furnished with all the plant sap she can drink, can produce an estimated 6,000 million others like herself in her lifetime.

She and all her sisters plunge their tiny beaks into the tissue of the twig or leaf and begin sucking sap. Tree sap contains a very small amount of food; it's mostly water, so the plant louse must drink vast amounts of sap to get enough food to keep head and body together.

The water is exuded about as fast as it reaches the insect's stomach. This material, expelled in vast amounts, is the honey dew that spots your automobile, if it is parked under a tree where numbers of aphids are feeding.

In India, this honey dew becomes the basis of shellac. Each aphid's ambition is to keep its body balloon-like with a constant intake of sap.

Resin Builds Up

And all the time the millions of aphids on the banyan tree are inhaling sap, they are exuding a resin which builds up layer on layer on the twigs of the tree. Within a short time, the little branch is completely covered with lac. These twigs, heavily encrusted with the material from the insect bodies, are gathered and the resin melted off becomes the "shellac" of commerce.

The wholesale gathering of encrusted twigs from the banyan tree is a profitable business as well as an unusual source of a common product. Shellac has many uses, one of the commonest of which is, of course, varnish.

The oriental people make exquisite figures and ornaments from lac. It is the material utilized in their celebrated lacquer work. Bowls, dishes and vases as well as many other articles are made from this by-product of an insect's digestive processes. Even the vermilion dye, with which much lacquer work is colored, comes from those same busy, sap-sucking bugs.

Through the chemistry of digestion, body juices of tiny insects and the sap of a tree can protect the beauty of woodwork in fine furniture—shellac, juice from a delicate insect whose numbers stagger the imagination.

Portland Living Costs Reach Peak

San Francisco — (AP) — The price of goods and services in Portland, Ore., reached a new high in April, the U. S. Bureau of Labor Statistics said today.

The bureau's all-items index for Portland reached 106.2, up 0.5 per cent over January of this year and 2.2 per cent over April of a year ago.

The over-the-quarter increase was general except for food and medical care. Food dropped 0.8 per cent in the January-April quarter and medical care 0.2 per cent. Transportation accounted for the biggest increase, 2 per cent.

FOUNDER DIES

New York — (AP) — Louis Lipsky, 86, one of the founders of the American Jewish Congress, died today at his home.

What can anyone say about a newspaper strike?

Stores and newspapers can't do without each other. We all knew it, but it took the costly New York strike to remind everybody all over again. • "The daily newspapers and retail stores are equally dependent upon each other for the success of their enterprises." • "The stores were not able to mount an effective fashion campaign without the daily newspapers." • "...it is essential to stimulate consumer interest through massive newspaper advertising or a generally depressing effect on sales will set in. The recent strike was aptly called 'a creeping disaster'." • "The downtown area of any major city is a unified shopping center whose prosperity depends upon the traffic-pulling power of big store advertising. When this advertising is not present, as in the recent strike, the entire area feels the effects." • "Without advertising, especially newspaper advertising, retail merchandising would be in a chaotic state." • "There is no substitute for the daily newspaper as the major medium for retail advertising."

Excerpts from a talk by Mr. Edward F. Engle,



Manager of the Sales Promotion Division, NRMA, at the annual convention of the National Retail Merchants Association in Hollywood, Florida, April 24th.