

## DENTISTRY

## 36 Mouth Habits Do Damage to Teeth

➤ MOST PEOPLE grind their teeth while sleeping. Many others clench them, rock them or have one or more of 36 "vicious" mouth habits that can damage gums, other mouth tissues and the teeth themselves. The tooth grinding during sleep chips and loosens teeth and causes considerable erosion and sensitiveness of the gums.

Tooth grinding during sleep can be prevented by wearing an appliance known as the Hawley retainer, Dr. Arthur F. Schopper of Kansas City, Mo., said at the meeting of the American Dental Association in Washington. The appliance was devised to keep the dental arch in place after correction of tooth irregularities. Dr. Schopper finds that it has preserved many teeth for many years and that it can be used by all persons, except those who have an open bite and are unable to bring their upper and lower front teeth together.

For those having an open bite, Dr. Schopper recommends use of bite blocks in the rear teeth to prevent grinding at night.

The 36 "vicious" mouth habits were listed by Dr. John S. McKenzie of Miami, Fla., at the same meeting. Among them are: lip-biting, toothpick-biting, fingernail-biting, biting on straws or matches or hairpins or pencils or pens or the ear part of eye glasses, biting on thread, thumb-sucking, smoking, chewing of cigars or tobacco, cracking nuts with the teeth, clenching a cigarette holder, opening tops of bottles with the teeth and pressure on the teeth that results from resting the chin on the hand.

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Falling Leaves

➤ GENERATIONS OF poets have perpetuated a dismal autumnal picture of "melancholy days, the saddest of the year," with trimmings of wailing winds and "leaves both brown and sear."

But this is not fair. Autumn is a grand season, a time of both fulfilment and preparation. And for the trees that shed their leaves it is no more a time of doom and death than any other season of the year.

The leaves die and drop off, it is true, but the trees themselves stand and survive; they are no more dead in autumn and winter than they are in spring and summer. We humans, egotists that we are, are simply reading our own feelings and reactions into beings whose lives are quite unlike our own.

The trees, as a matter of fact, are very business-like about this letting their leaves go. In their purely automatic, unconscious way they prepare for the coming winter

and the spring that is to follow a great deal better than self-styled *Homo sapiens* manages his own future.

The first thing that happens, as the nights grow longer and chillier, is the draining back into the tree's branches and trunk of practically all the foodstuffs in the leaves. Leaves, as we all know, are the ultimate food factories and during their active life always contain a good deal of sugar, starch and protein. That is why grazing and browsing animals eat them while they are green—nobody ever saw a deer, or even a goat, try to get a living out of fallen leaves.

After the foodstuffs have been drained out of the leaves, the green coloring matter that helps to make them breaks down chemically, and in doing so becomes colorless. It is then that the leaves begin to glow in their autumn glory of yellows and reds and purples.

These colors have been there all the while, the yellows as microscopic solid bits of pigment, the reds and purples as dissolved dyes in the cell-sap. Only during the summer there is so much more of the green pigment in most leaves that it covers up and masks the bright hues.

While the color change is going on, a double layer of cork cells forms right across the base of the petiole, or leaf-stem—the only common case in nature of a bandage being applied before a wound occurs.

After this cork layer is formed, it splits apart, one half going with the leaf, the other covering the scar on the branch and sealing it against the entry of decay-causing germs and spores. Students of plant life call this cork layer the "absciss layer," which in plain English means simply the "cutting-off layer."

And so the leaves drop off.

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## TECHNOLOGY

## Long Distance Dialing

➤ THE 10,000 telephone dials in homes and offices in Englewood, N. J., will be usable on and after Nov. 10 to dial directly 11,000,000 phones in certain cities across the nation from Boston to San Francisco. The procedure for the telephone subscriber will be as simple as calling another subscriber in Englewood.

The equipment in the Englewood telephone central station necessary for this home-to-home long-distance dialing is completed, the New Jersey Bell Telephone Company has revealed. It is now being used in test calling by Bell engineers from the Englewood building to the 13 urban telephone areas from coast to coast involved in the initial use of long distance dialing.

Each of these areas has a special telephone central with its own particular code number. This code number must be dialed

before the local number wanted is dialed. A telephone subscriber in San Francisco who wants a neighbor might dial GA 1-9950. A telephone user in Englewood who wants the same "neighbor" will dial the ten-digit combination 318-GA 1-9950, the 318 being the code number for the San Francisco area.

The equipment installed in the Englewood central stores up the digits dialed and as soon as the tenth digit is recorded, the call is automatically switched over telephone highways to the called telephone in San Francisco.

The trial of home-to-home long distance dialing will be limited to Englewood for the present. It will be a one-way system at first. Dial calls into Englewood must wait until proper equipment is installed later in other communities' home central stations.

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