



Balancers

IF YOU will catch one of the long legged insects that you frequently find in the house—craneflies, gallinippers, daddy-long-legs, they are called in various localities—you will find, just behind his two wings, a pair of most curious little knobs, that look more or less like the knobs on the end of a tight-rope walker's balancing pole.

In effect, that is what they are. Nobody knows just how they do it, but in some way they act to keep the insect's flight normal and under control. Once a curious naturalist cut one off with a pair of exceedingly fine scissors. The poor cranefly could no longer fly straight, but constantly swung in circles. And when he cut them both off the poor thing flew as though it were drunk or crazy.

These odd little balancers are regarded by scientists as the remains of wings the insects once had. The normal quota of wings for any insect is four. This is very obvious in such groups as the butterflies, grasshoppers and beetles, and almost as evident among the bees and wasps. But the fly family, to which our gallinipper belongs, has only one pair of wings whence its name of "Diptera" which means "two-wings." But in the position that would normally be occupied by the after pair, all flies, mosquitoes, gnats, craneflies, and all other dipterous insects have this pair of protruding knobs. They can no longer use them to fly with, yet they can not fly without them.

Pelicans in flight move their wings in unison, taking their beat from the leader and keeping time with him.

MEDICINE

Diet Protects Growing Teeth, Cleanliness Saves Old Ones

EVIDENCE supporting the theory that acid-producing germs cause tooth decay was presented by Dr. H. E. Friesell, dean of the University of Pittsburgh School of Dentistry, and Dr. J. J. Enright of the Mellon Institute at a special symposium on dental decay held under the auspices of the Pittsburgh section of the International Association for Dental Research.

Diet is of greatest importance while the teeth are being formed and before they are erupted, and the expectant mother and the small child should have plenty of fresh fruits, vegetables, dairy products and preparations or foods containing vitamins A and D, these scientists declared. However, after the teeth are erupted, the conditions in the mouth and particularly the presence of acid and acid-forming bacilli are responsible for dental decay, in their opinion.

Drs. Friesell and Enright studied the effect of acid on extracted teeth and found that it produced decay which could not be distinguished from that occurring naturally. They even examined under a microscope thin ground sections of several hundred specimens of such artificially produced decay. They found that unless the acid strength was greater than that of sour milk, the acid would not produce decay under conditions like those found in the mouth.

The Pittsburgh investigators also stud-

ied twenty-three varieties of bacteria found in mouths. Of these only one, the lactobacillus, could stand acid strong enough to produce decay of the teeth. This bacillus itself forms acid from starches and sugars, such as may be in food particles clinging to the teeth. A survey showed that in general progressive decay of the enamel of the teeth was accompanied by the presence of these bacilli in the dental zone and absence of decay was accompanied by absence of massive infection with these same lactobacilli. A careful clinical study at the University of Pittsburgh further showed that measures which would reduce by two-thirds the infection of the dental zone with these lactobacilli also decreased the amount of new tooth decay developing in a year.

Science News Letter, July 9, 1932

A 300-pound piece of stone kitchenware, the property of some unknown American housewife of prehistoric times—long before the days of kitchenette apartments—has been found by the entrance to a cave near Dragoon, Arizona.

This heavy-weight household article is one of the discoveries announced by Bruce Bryan, archaeologist of the Southwest Museum, just returned from exploring caves in the Dragoon Mountains in southeastern Arizona.

Science News Letter, July 9, 1932

CONVENIENCE COUPON

for New or Renewal Subscription to Science News Letter

Send this coupon to Washington while you are thinking of it.

**Science News Letter,
21st and Constitution Avenue,
Washington, D. C.**

Please start renew my subscription to SCIENCE NEWS LETTER. I am enclosing remittance as checked below:

2 years, \$7
 1 year, \$5

Name _____

Street Address _____

City and State _____

If this subscription is a renewal, check here

