

PSYCHOLOGY

Words Meaning Upward Actually Look Higher

► WORDS EXPRESSING in various ways an upward direction actually look higher. This was found in experiments described to the Eastern Psychological Association meeting in New York by Dr. Stanley E. Kaden of Clark University, Worcester, Mass.

In Dr. Kaden's experiments, 20 college students looked at luminous words exposed about six and a half feet away in a dark room. With heads fixed in position, they then moved the words up and down on a vertical track until they appeared to be exactly at eye level.

For words meaning upward, the apparent eye level was lower as compared with actual eye level than it was for words expressing downwardness. In other words, the "up" words had to be moved down to appear at eye level; the "down" words had to be moved up.

Science News Letter, April 17, 1954

BIOLOGY

"Blue" Blood of Lobsters Still Biological Mystery

► TRUE "BLUE BLOODS" in the animal kingdom are the lobsters, crayfish, crabs and their relatives. A blue copper pigment in their blood serves the same function as iron pigment in human beings.

The copper pigment, hemocyanin, serves as a vehicle for carrying oxygen in blue-blooded animals just as the iron pigment, hemoglobin, does in red-blooded creatures, the study shows.

Whereas the red pigment is capable of carrying oxygen in the ratio of up to 20 cubic centimeters per 100 cubic centimeters of blood, the blue pigment can carry only up to three cubic centimeters of oxygen per 100 cubic centimeters of blood.

Hemocyanin is thought to have evolved from certain copper enzymes, which all red blooded animals, including humans, have in their bodies. Why certain animals developed blue oxygen bearing pigments while others developed red ones is still a mystery.

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**Help Yourselves!**

► CHILDREN, TURNED loose in the blossoming spring woods, are apt to indulge in an orgy of flower-picking, just from sheer exuberance of delight in the simple beauties their young minds can comprehend. It is a sad necessity for their elders to restrain them from gathering some kinds of flowers, lest none may be left for the next generation of children.

Violets, however, need no help from the parental or avuncular "don't." Little fingers may be permitted to take all they care to, of these favorites, so long as the plants are not pulled up roots and all—and with most species of violet that is not an easy thing to do.

MEDICINE

Heart Attack Survival

► AGE RATHER than sex affects survival after a heart attack, Drs. Louis N. Katz, David R. Cole and Evelyn B. Singian of Chicago reported at the meeting of the American Heart Association in Chicago.

And while far more heart patients in the group they studied were overweight or well-nourished rather than thin, body build did not seem to have a significant effect on the outlook for survival after a first heart attack.

Two out of three people who survive the first heart attack are able to go back to moderate or complete activity. Contrary to popular opinion that heart attacks usually mean early or sudden death, about three-fourths, or 77%, recover from a first attack.

Dr. Katz and associates reviewed the histories of 461 patients seen over a ten-year period, 1932 to 1941. They were able to get complete information on 390 up to the time of their death or, for the survivors, until Jan. 1, 1952. Of this group, 23% died within the first two months after the first

For free leave to pick violets without fear of ill consequences there are two reasons. Violets are perennials, coming up for several years from the same root-mass, and propagating by simple vegetative growth and spread. Perennials are usually deeper-rooted and more resistant to even wanton attack than are annuals.

The second safety measure of the violet is even more interesting. Most flowers are dependent on the results of their own pollination for seeds. Not so the violet. While seed pods may follow the pretty blue and white and yellow flowers, the main crop of seeds is produced later, from a second production of flowers which most of us would never recognize as such. These are short-stemmed, bud-like affairs that never open and have no petals; they shed their pollen internally on their own seed-producing parts and thus insure an abundant crop of seed as it were in secret.

Botanists have a special name for flowers of this kind. They call them "cleistogamous." The word comes from two Greek roots that combine to mean "hidden marriage." And that is essentially what the whole strange proceeding amounts to.

With two kinds of flowers to produce seed, and vegetative increase to insure survival and supplement the plants' spread, it is not remarkable that violets are among the most successful of spring flowers. Not only do individual plants swarm in woodlands and over open fields; the number of separate species has evolved amazingly.

There are at least 300 different kinds of violets, ranging throughout the temperate regions, in habitats ranging all the way from swamps to dry, rocky mountain heights.

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