

The Expressionless, Calm Eye — Because All the Muscles Are at Rest.

The Eye o Pain — th Same Eyes but Brows an Lid Muscle

Change the Expression.

Science Explains The Expression In Your Eyes

Why the Eyes Really Don't Have Anything to Do with It at All and Every Emotion Is Interpreted by Muscles



Sympathy



Laughter



Anger

"LESBIA hath a beaming eye," sang the poet. It is quite likely that she had. But if she did it was because her blood pressure was at the time abnormally increased, her circulation too rapid and what she needed was not verses but a sedative.

There has been a great deal written about expression in eyes. Pretty nearly every adjective in the language fits eyes, and the constant search of the modern poet is for one that hasn't yet been used as a spectacle lens. Thus we have the sparkling eye, the fiery eye, the gentle eye, the flashing, cruel, cold, warm and dancing eye—even the glad eye.

Science, practical and unpoetical, now explains that there isn't any expression in the eye at all worth speaking of. Colors, sizes, degrees of clearness, yes—but expression, no. It is all a matter of muscles. A pig's eye could beam as nicely as Lesbia's, given the same temporary heart action, and could be as melancholy as Manfred's with the same set of muscles, aided by the musculature of the face.

Richelieu had an "emotionless, cold stare," which awakened fear in those who offended him. Nicholas I. of Russia, although possessing the beautiful Romanoid eyes, could "look with such a curiously dead cold stare on suspected persons that, if guilty, they invariably confessed." Runjeet Singh, "the Lion of Lahore," insignificant physically, his face seamed by smallpox and having only one eye, could use that "one with terrible effectiveness in dominating men." Caesar Borgia had eyes which "gleamed like fire," and to those of Kitchener have been ascribed various extraordinary powers.

All this seems to place eyes as the prime indicators, voluntary or involuntary, of emotions. Yet the same characteristics are almost as forcibly expressed in statuary, whether the modeling represents a face purely imaginary or one of a real personage. Caligula, Venus, Socrates, Byron, Napoleon, Siddons, Lincoln, Davy, Voltaire, Gladstone, Gainsborough all "look" from orbits perfectly void or on which there is simply a circle and a dot, yet all of expression is there. Yet wrath, learning, placidity, cruelty are all amply portrayed by muscles, particularly those of the forehead and mouth, without any aid from the eyes.

Lauder Brunton, the great London doctor, declares expression to depend chiefly upon the setting of the eyes and not upon the eyeball itself. He tells that he illustrated this by pictures. In one he had a Madonna, in another a figure of Anger, from Lavater's "Physiognomy." He had, besides, a pupil and

iris, and used these, a pair of ordinary eyes, for each picture, and it did not materially alter the expression. He also made the "fatigued" eye simply by lowering the eyelid over an "alert" one.

Now take eyes by themselves, as in the game of guessing identity by only seeing them through a hole in a curtain. This guessing proves more difficult than one would imagine, partly because the same expression—a stolid stare—is put on by all to hinder detection, and no telltale muscularity is seen. Every one knows the unpleasing effect of a "forced" smile, when the eye-muscles which are more or less under control—look friendly, and the other facial muscles do not correspond, or when a person tries to look cheerful though suffering pain or sorrow. Sometimes an attempt to hide joy is made by lengthening the face, but happiness darts from the eyes—that is, the eye muscles—and denies the attempt.

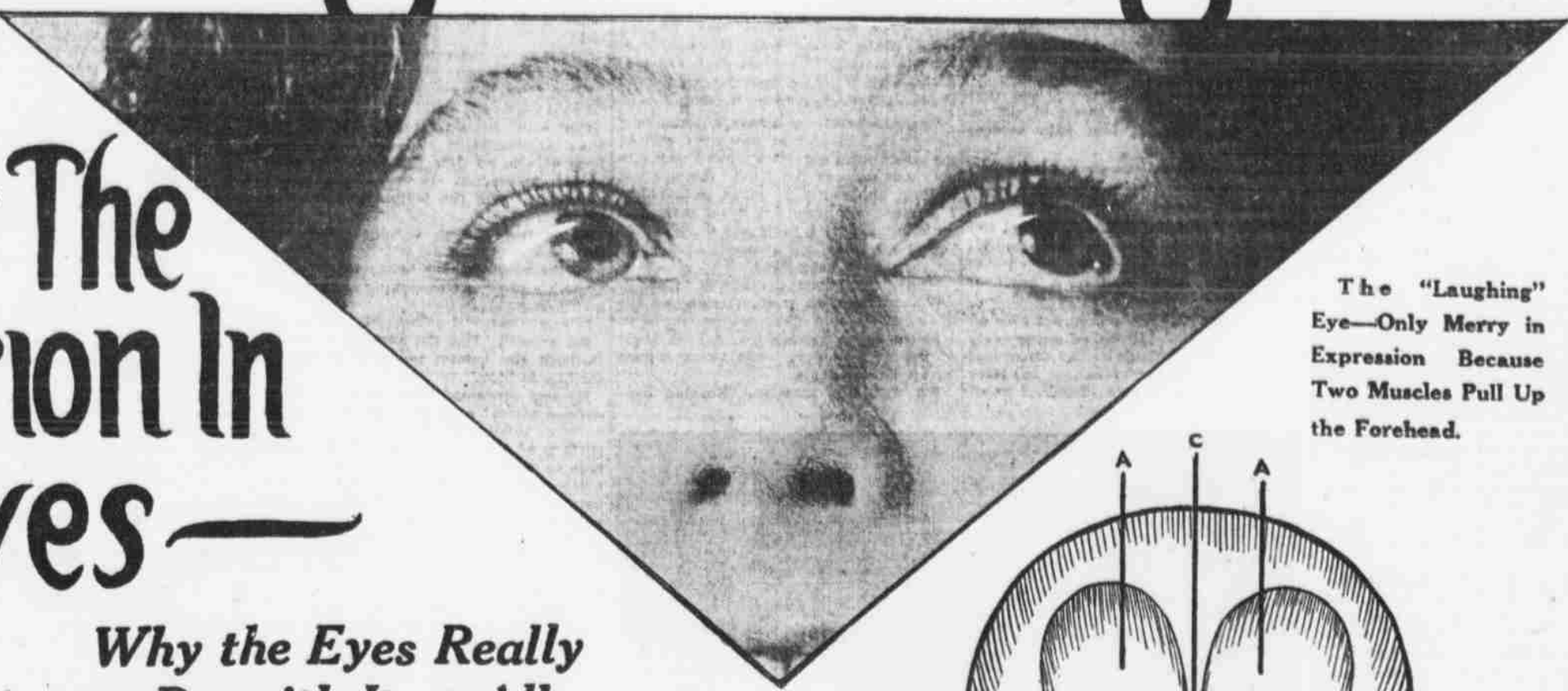
An old writer, John Bulwer, in his "Pathomyotomia" (1649), says: "But true laughter hath both the effects of the intellectual part as the principle upon which the dilatation of the heart and contraction of the countenance ensue, it being not only an affection of the body, but totus conjunctus of the whole man." As a New Zealand native once said: "We laugh all over; we breathe all over, from toes to eyes, and he hit a truth, for every muscle has its share in unfeigned emotion.

In the eye there are two sets of muscles: four straight, attached at cardinal points and, by combined action, moving the eyeball in every direction subject to will; then two involuntary, which, when the first four cease their action, causing insensibility to creep over the retina, revolve the pupil upward, showing only the white, well-instanced in the drunkard, who by raising the eyebrow and eyelid strives to fix the eye, but, having lost control of the voluntary muscles governing the eye, the pupil rolls upward, as in sleep or a fainting fit.

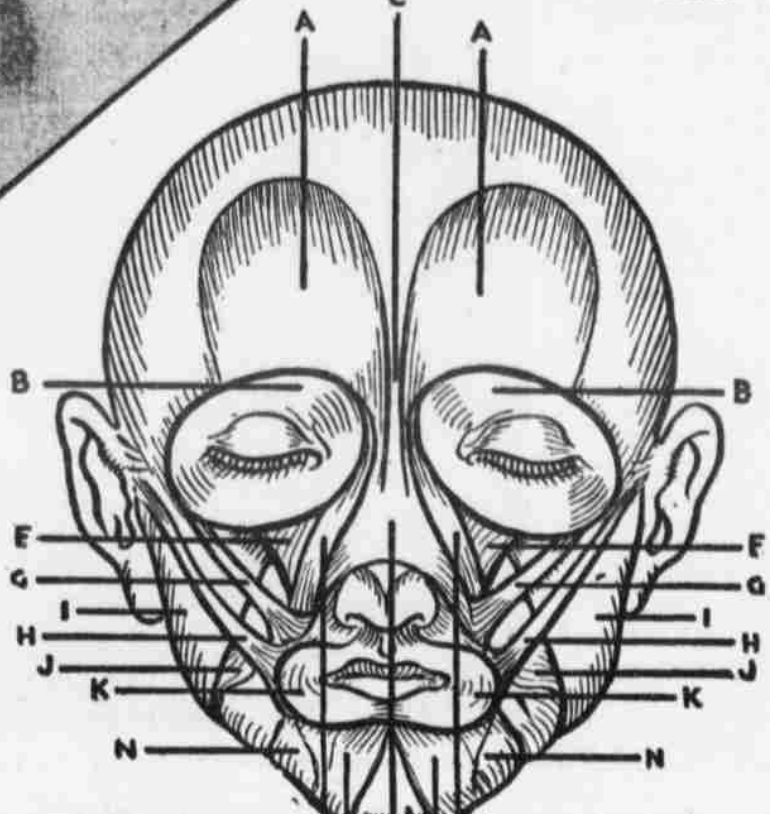
There are, besides, twenty-four underlying muscles to the eye and eyebrow, twelve to the jaw and ten to other parts of the face, and a perfectly controlled face is artistic, for every one of them works in unison.

Dr. Theodore B. Hyslop, long time head of Bethlem Hospital for the Insane, and who necessarily had to study eyes, tells me that it has always seemed to him that "apart from the significance of changes in the size of the pupils, the emotional expression is entirely due to the lids and post-orbital conditions."

A condition of fatigue or pain serves as part illustration of this. The eyes



The "Laughing" Eye—Only Merry in Expression Because Two Muscles Pull Up the Forehead.



The Face's Expression Machinery.

Diagram of the human face, showing the numerous underlying muscles which give us expression.

A-A—Frontalis muscles. These are the chief of facial expression. Used principally to lift the eyebrows in surprise, laughter, etc.

B-B—The Orbicularis Palpebrarum. The muscles surrounding the eyes and eyelids used to open and close the eyes and when completely relaxed gives to the person an expression of drowsiness.

C—Pyramidalis Nasal. This is a long, thin muscle, connecting with A-A; yet we could not look mad without it, as it is used to depress the eyebrows. Its use also gives on the determined look about the eyes, as in the concentration of thought.

D—This is the Compressor Naris. A broad muscle across the bridge of the nose, used when we dilate the nostrils.

E-E—Levator Labii Superioris Alaeque Nasal. When we smile, sneer laugh or pout, this is the muscle used, ably assisted by the underlying muscles F-F.

G-G and H-H—Zygomaticus Major and Minor. The over use of these mus-

cles often leads to a large mouth, as it is used to draw out the corners of the mouth.

I-I—The Masseter Muscles. These are muscles of mastication, but are also used when we set our teeth with determination or anger.

J-J—The Buccinator Muscles. Used to compress the cheeks.

K-K—The Orbicularis Oris. The muscle surrounding the mouth, contraction of which gives us the pouting expression often referred to as the kissing muscle; also useful when we wish to keep a closed mouth.

L-L—The Depressor Labii Inferioris. These muscles control the lower lip and are brought into play by persons who have the "grouchy" expression on their mouth.

M—The Levator Labii Inferioris. This muscle also connects with the lower and assists its neighbors, L-L.

N-N—The Depressor Anguli Oris. When we draw down the corners of the mouth as in sneering, these two muscles are used; they also give to the face that most deplorable expression known as the "hang-dog" expression.



Fear



Defiance



Determination



Surprise

Why City People Ought to Keep Bees

THE time is not far distant when the people of this progressive and prosperous country will see the necessity of increasing the bee industry.

Bee keeping is a paying industry in itself and when we stop to consider the real worth of the bee we must not forget its value to the grain, vegetable and fruit grower.

Much of the inferiority of our fruits and vegetables is due to the fact that the pollen is not properly distributed, and unless we increase the number of bees, the increase of the fruit and vegetable products will result in a rapid decline in quantities which have made them so profitable and useful to mankind.

Fruits grown in communities where bees are plentiful have more of the desirable qualities in flavor and size than those produced in sections where bees are scarce.

When properly understood the bee is easily managed, and in almost unfavorable conditions the bees will increase in numbers very rapidly, and they never fail to work industriously, gathering honey

from sources we can scarcely imagine. To obtain a stock of these busy workers is not expensive.

The culture of bees may be conducted in or near towns or cities to a limited extent, it even being proved that bees kept in or near cities find a more abundant pasturage than in country locations usually considered more suitable.

The bee shows a decided preference for certain kinds of food, no matter where the hives are located. Bees are kept with success in the heart of several cities, and the range of the bees for food is extensive.

To attract the bee there should be a prevalence of the following trees or plants. The silver bush, which is used for a windbreak, furnishes pollen in February and March. The blossom of rape, furnishes pollen and honey, it can be grown almost anywhere for pasturage, seed or green manure.

The familiar varieties, such as peach, apricot, plum, pear, cherry, apple, currant, and gooseberry are rich in pollen and honey during the months of April and May. A colony of bees that have win-

tered well will gather during the apple bloom season as much as fifteen pounds of surplus honey of fine quality.

The most favored food for the bee are the various kinds of clover. The crimson clover yields a fine light colored honey. The best season is April and May. The other varieties blooming in May, June and July. This is at the same time yellow in color.

The bloom of asparagus is greatly sought after by the bee in the months of June and July, this is at the same time alfalfa is blooming, which is a good honey producer. The bloom of parsnips if allowed to seed is a favorite with the bee. Even the bloom of common herb is utilized, for instance, peppermint.

The bee is an extensive and persistent forager, going from two and a half to three miles in search of food. The range covers an area of 12,000 to 18,000 acres. Should but one square foot in 100 produce a honey-bearing plant, they would have remaining 120 to 180 acres of pasturage; however, there may be thirty or forty acres in bloom close to their hive.