

CURIOUS RESEMBLANCES IN NATURE

By Robert H. Moulton



TRACE in natural objects a resemblance, either structural or pictorial, to other objects with which they have no real connection is a diverting pastime. Moreover, though at first thought it may seem somewhat puerile, it can in fact be turned to good account as a means of stimulating the imagination, and inducing the mind to embark upon a course of truly scientific investigation which may lead to important discoveries.

This applies in particular to the training of the youthful student. All those who have gained experience as teachers will readily admit the initial difficulty which exists in arousing the intelligent interest of a class in study. In other words, something is needed to set the machinery of the mind in motion. For example, a flower or an insect, as such, may fail to evoke the desired response. But if we can point out some curious or grotesque likeness which it bears to a familiar creature or thing, we are able from this starting point to lead on by carefully planned stages to such great questions as structure, natural affinity, and adaptation to environment.

When nature is in one of her imitative moods, the products of her workshop frequently bear all the earmarks of a deliberate fake. Occasionally they seem to have been conceived and executed in a spirit of sportiveness. As an indication of this mood, the remarkable Taira crab of Japan, which has lately attracted the attention of science, stands forth as a conspicuous example.

In Japanese tradition there is a story to the effect that many years ago a great naval battle was fought in the Sea of Japan between a force of pirates and Japanese, resulting in the total destruction of the pirate fleet. The story continues that since that day all of the crabs of a certain species found on that part of the coast have borne on their backs the face of a Japanese warrior.

An examination of one of these crabs reveals at a glance the somewhat startling visage. The human-like face is not only there, and typically oriental in appearance at that, but actually resembles the face of a drowned man, with open mouth and greatly swollen features.

Whether the Japanese idea that the Taira crab offers good evidence of the transmigration of the souls of dead bodies into the bodies of lower animals be accepted or not, the phenomenon described is certainly very interesting. Another curious thing about this crab is the fact that it is equipped on its back with four short supplementary legs, which are shown in the accompanying photograph at the corners of the mouth of the face, so that if accidentally turned upside-down, it is able to run quite as well in that fashion as in its ordinary position. The advantages of such an equipment will readily be appreciated by those who have witnessed the awkward efforts of other species of crabs, turtles, and various kinds of bugs to right or propel themselves when lying on their backs.

Another remarkable example of typical racial features is found in the carbone of a finback whale which was picked up on a Norway beach. It has all the features of a Scandinavian face, of low caste, with rounded cheek bones, flat nose-bridge, small upper lip and receding jaw. In general appearance, however, the face is more like a death mask than that of a living person. That this was not a freak formation is proved by an examination of the ear-bones of other finback whales at the Smithsonian institution in Washington, all of which have substantially the same form.

In the animal kingdom nature's imitations are equally astonishing and much more numerous than in either the animal or vegetable kingdoms. There are several species of orchids, for instance, bearing popular names which suggest the likeness of the flower to some member of the animal kingdom, among them being the man orchid, the bee orchid, the spider orchid, the lizard orchid, and the holy ghost orchid. While it is true that some of the supposed likenesses are more or less imaginative, others are wonderfully distinct and will bear close scrutiny. This is particularly true of the holy ghost orchid, which contains within each of its blossoms a pigeon with half spread wings. It is necessary to view the blossom from squarely in front, as in the case of the lower blossom shown in the accompanying photograph. To get the full effect of the resemblance. When viewed from this position, the bird is so perfect that it looks as if ready to take flight. The plant, which is a native of the Isthmus of Panama, is very rare, there being perhaps not more than half a dozen specimens in the United States, including two in the greenhouses of the White House at Washington. It grows sturdily, but, in order to thrive, has to be kept in a hothouse with the temperature of a Turkish bath.

In all of the instances referred to above the resemblance is mainly due to the lip or labellum of the bloom. Now orchids rank admittedly among the most highly specialized flowers, while their extraordinary modifications are the result largely if not entirely of insect interference. Many of these flowers depend entirely upon the visits of insects for pollination, and without the aid of these winged emissaries of Cupid they are quite unable to get seed. The labellum is the recognized alighting platform upon which the insect stands while it probes the recesses of the flower in search of nectar; and as orchids are so closely associated with insects, we must assume that the special shape of the labellum in each instance is more or less definitely related to the convenience of the guests that are specially catered for by the flower in question. In certain instances this is actually known to be the case. Throughout the great orchid family the labellum exhibits an almost endless variety of configuration, and we are justified in the assumption that each form is exactly adapted to attract, or uphold, a particular kind of insect.



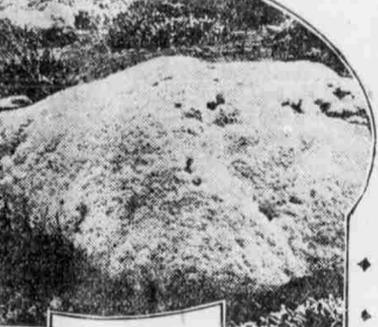
"MEASURING WORM" IMITATING A TWIG



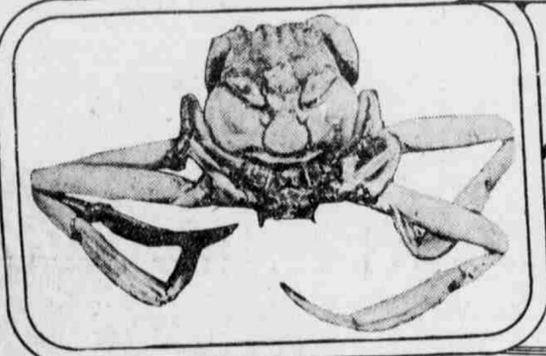
EAR BONES OF A WHALE RESEMBLING A HUMAN MASK



PIGEON IN THE HOLY GHOST ORCHID



VEGETABLE SHEEP IN NEW ZEALAND



CRAB WHICH BEARS FACE OF A JAPANESE WARRIOR



THE FAMOUS "SCYTHIAN LAMB" WHICH IMITATES A SHEEP



CHRYSLIS OF A BUTTERFLY, AN EXTRA ORDINARY RESEMBLANCE TO A HUMAN FACE

Most young people are familiar with the canary-bird flower or common canary creeper, and here again we find that the unusual form of the blossom is due to insect visits. The blooms of this group of plants seem especially designed to meet the needs of long-tongued moths, which seldom or never settle on the flower, but hover in front of it, lightly poised on their rapidly-moving wings. While in this position the tongue is unrolled and thrust far back into the "spur" of the flower where the nectar is stored. Meanwhile, the head or body of the moth comes into contact with the pistil or stamens, and pollen is deposited or removed, as the case may be.

A very curious plant, which has been famous since ancient times, is the "Scythian lamb"—otherwise known as the "vegetable lamb," or by the Chinese as the "golden-haired dog." It looks remarkably like an animal, and in early days was popularly supposed to combine in some mysterious way the attributes of animal and plant. The belief was that it sprang from a seed and turned on its root until it devoured all green food within reach, whereupon it perished of starvation. As a matter of fact, it is merely the root stock of a plant, which, densely covered with soft, golden-brown hairs, suggests a likeness to a quadruped.

A strange plant found in New Zealand is known as the "vegetable sheep" because of its wool-like foliage. In fact, the vegetable kingdom offers an almost endless variety of curious imitations. The seed-pods of the common garden snapdragon look exactly like small human heads arranged on the stalks like "poles of skulls," such as are set up in certain countries where head-bunting is a popular amusement. These show not merely the head and face, but dried

portions of the scalp, eyelids and lips. Their color is like that of mummied heads. The insect world is full of mimicry. Butterflies that imitate dead leaves are familiar, and the same may be said of the "walking stick," which bears so close a likeness to a twig that, though common enough in the woods, it is rarely detected or captured. The "measuring worm" assumes the attitude of a twig, and remains motionless for hours together. Moths, to protect themselves against enemies, mimic wasps, and other insects adopt the aspect of the spider. Native to Africa is a remarkable insect, a species of Spalangia, the chrysalis of which looks like the head of a chimpanzee. Even the hair and the pupils of the eyes are shown. But more wonderful yet is the chrysalis of a butterfly, *Feniscea*, which is a likeness, seemingly a mask, of the Roman king, Tarquin.

TELLS OF DROWNING ELEPHANTS

"Did you ever hear the terrorized trumpeting of a herd of drowning elephants?" asked W. J. Williams of Peru, Ind., at the Willard. "If you never heard the piteous cries of dying beasts, you have escaped one of the most heartrending experiences that ever comes to civilized man. I was in Peru during the flood of 1913, when the Wabash river rose to unknown heights, causing tremendous destruction of property. Peru is the winter headquarters of the Wallace and Hagenback circuses, and when it was found that the water was coming higher than had ever been known before, the fourteen elephants in the circus were unchained and let go to take care of themselves. Three of them managed to reach a small mound where they stood in the water with their trunks elevated till the end of the flood, but the other eleven were drowned.

"With the water rushing through the streets, and the people of the city crowded in the second stories of the houses, the elephants swam around for hours, trumpeting in terror and sticking their trunks into the open windows of the houses in their efforts to find some spot of safety. They cried like children and one could almost understand their language as they pleaded for the help which could not be given them, for not one of them could be taken in through a

door or window out of the flood. They acted more like human beings than beasts, and it was almost as pitiful to see them go down under the muddy waters, one by one, as it was to see a human being washed from a roof.

"I shall never forget their dying cries as they sought the safety which could not be found in that flat country, where the whole surface of the earth was submerged.

"Back in the big circus menagerie, however, there was even a more tragic scene. When the water came up into the cages of the animals they all became frantic from fear.

"Lions and tigers roared and dashed themselves against the bars of their cages till it was feared they would escape and swim to places of human refuge, where they would destroy many lives.

PHIN'S GOOD LUCK

By GEORGE MUNSON.

Phineas Kelly was accustomed to see "a look in th' old woman's eye," as he phrased it, when he came home to his tea after eight hours of peaceful employment as a bricklayer. Years of practise had enabled him to interpret it accurately. It meant, "lie low, Phineas, for things have been at sixes and sevens all day."

On such occasions Phineas, good, honest man that he was, would slip out quietly after tea to the corner saloon, where he would sit talking politics and domestics with his cronies over a glass or two, till the time came to retire home, strictly sober, and prepared to find that the odd and even numerals had straightened themselves out during his absence.

On this occasion there was an altogether different look in Mary's eye. "What is it, woman?" he exclaimed, sensing that something quite different from anything in his experience had happened. "Speak out, Mary, girl! Is it the measles? If Tim's got thim I'll whale the life out of him!"

"No, it isn't," snapped his better half. "Uncle Jim's dead and has left me all his money. The lawyer thinks it will come to five thousand dollars."

While Phineas sat, exhausted from emotion, in his chair, Mary read him the letter from Ireland.

"What'll I do wid it?" ejaculated her husband.

"You're going to be a contractor, Phineas, as you have always wanted to be," answered Mary. "And at the end of the month we leave."

Phineas uttered various exclamations, but he was as straw in his wife's hands. Before he went to bed it was understood that he and Mr. Hogan, with whom the subject had been broached at times of day-dreaming, should go into the contracting business. Hogan had saved a tidy sum, and with this legacy their dreams could be realized. During the twenty-eight days remaining before June Phineas was to continue laying bricks.

The days that followed were not of unalloyed bliss. Phineas wanted to remain in the little flat, even if he was to be a contractor. But Mary had the "social bee" and she did not fail to impress it upon her husband that, for Tim's sake, they must move to a lo-



"Phineas! We Haven't Got Any Money at All!"

cally more suited to their new station in life. And, as the days went by, and the whole neighborhood assumed a more cordial friendship than ever before, Phineas found that he was no longer free of Rafferty's saloon.

"We can't afford to be too friendly with that sort, Phineas," explained his wife. "Flaherty and his wife are good enough people, but just common clay."

"We've shook dice together each Saturday night in years," pleaded Phineas. "And what about that Sunday picnic with them and the Hooligans?"

"There won't be any picnic," asserted Mary irritably.

Nevertheless Phineas did manage to meet his old friends by various subtleties, and he carefully explained the situation to them.

"The best woman in the world, Mike," he told Flaherty. "But you know how it is with women, Mike. The money's sort of turned her head."

"That's all right, Phin," responded Mike Flaherty. "This one's on me."

"What is it, Mary?" he asked one evening, when his wife had been more than usually morose.

He half expected the tartest of rejoinders; but, to his astonishment, his wife burst into tears and laid her head upon his shoulder. And Phineas found himself caressing her as he had not done since Tim was a baby.

"Phineas," she wept, "I feel so mean and hateful, the way I've treated the Flahertys and the Hooligans, after the friends we've been. It's for the boy's sake, Phineas, dear, isn't it?"

"Sure, that's all right," answered her husband. "They understand."

"Do you think they think I think they aren't good enough for us?" inquired his wife, raising her face, wet with tears.

"I guess they think they'd do as much if they were in your place, Mary," he answered.

"For half a pin," said Mary, "I'd stay right on here for old times' sake, and—invite the Hooligans and Flahertys to the picnic after all. But—" she sighed—"It's for Tim's sake, isn't it?"

"Sure," answered her husband, bravely, though he, too, was thinking of his old friends and those merry evenings at Rafferty's.

But three days remained when the post brought a letter from the lawyers in Ireland. Phineas brought it dutifully to his wife. She opened it and gave a scream.

"Phineas! We haven't got any money at all!" she gasped.

Phineas Kelly, with a mixed feeling of joy and sadness, took up the missive and spelled it out:

"We beg to inform you," he read, "that an error was made in stating that the estate of your late uncle, Mr. James Smylle, was likely to be proved at five thousand dollars. The total amount of the estate is seventeen thousand, all of which goes to you under the will, and—"

"Seventeen thousand!" cried Mary Kelly, springing from her chair and grasping the letter from her husband's hand. "Phineas! It's true! Listen! And a check for this amount will be forwarded in a few days to you."

Suddenly the excited woman began to execute a pas seul before her husband's eyes.

"Mary!" he exclaimed, "you'll be too tired to pack if you—"

"But we're not moving, Phineas! We're going to stay right on here."

"But we've got seventeen thousand, woman!" he cried.

"That's why, Phineas," she answered. "With five thousand we could never be sure that the neighbors really looked up to us, but with seventeen thousand we know. We can afford to now. See?"

Phineas saw. He saw a welcome corner in Rafferty's and the familiar faces of his old friends smiling out of a cloud of tobacco smoke.

And the kiss he gave Mary drove away the "look" forever. (Copyright, 1914, by W. G. Chapman.)

REAL INVENTOR OF SEXTANT

Thomas Godfrey of Philadelphia Is the Man to Whom the Honors Properly Belongs.

One of the earliest of America's "self-made" men was Thomas Godfrey, who invented the sextant. Godfrey, born in 1704, was a humble glazier, but a man of intellectual force.

John Hadley also invented a sextant, evidently carrying out a suggestion of Newton which was found in Sir Isaac's original draft among Hadley's papers after his death.

Godfrey antedated Hadley by about one year, but for a long time his claims were not recognized, and Hadley received all the credit.

How the humble glazier received his first inspiration to design the instrument of so great use to mariners is an interesting story.

One day, while replacing a pane of glass in a window of a house on the north side of Arch street, in Philadelphia, opposite a pump, a girl, after filling her pail, placed it upon the sidewalk.

Godfrey, on turning toward it, saw the sun reflected from the window on which he had been at work into the bucket of water, and his philosophic mind seizing upon the incident was thus led to combine the plan of an instrument by which he could draw the sun down to the horizon by a contrivance incomparably superior to any that had ever before been used for the purpose of ascertaining angular measurements.

Test of Character. But responsibility is the great character-developer, and very few of us really know what we can do until we are put to the test. The market is long on men who can take orders, but short on those who can intelligently issue them. Responsibility requires a certain amount of initiative; the willingness to act when occasion demands and the courage to fall under honest effort and take the consequences.

Of course you may fail; but you can't tell whether you will succeed until you try; and having tried to the utmost of your ability and failed, is better than never to have tried at all. Better because in every loss there is the compensation of experience, while mere inaction means mental and physical stagnation, the dam and sire of annihilation.—Leslie's.

The Best Kind. "The poor widow, who lost her only support in her husband, has received a large number of notes of sympathy from her friends."

"How many of them were bank notes?"