

Mars Peopled by One Vast Thinking Vegetable!

ODD FACTS ABOUT MARS

MARS is the fourth planet from the sun, and the nearest to our earth.

It is called the red planet, and its color is thought to be due to vegetation.

Its size and density are less than ours, and a man weighing 200 pounds here would only weigh seventy-five pounds there.

Mars has atmosphere, seasons, land, water, storms, clouds and mountains.

Mars has two moons only 3,700 miles away and revolves around it in seven and a half hours like a shooting star.

The day on Mars is half an hour longer than ours, and its year contains 687 days.

Professor Lowell has counted 437 "canals" on Mars, and 186 "oases." The canals vary in length from 250 miles to 3,000 miles.

A man on Mars would be able to drive a golf ball fifty miles.

The strength of a man on Mars would be eighty-three times greater than on the earth.

The atmosphere of Mars consists principally of carbonic acid gas.

The water supply of Mars is very slender, and its utilization is the greatest problem of life there.

MARS is the nearest planet to us, the one which we can see the most plainly and the first one which we shall be able to visit when science makes a journey beyond our atmosphere possible.

Mars, moreover, is proved by astronomy to possess an atmosphere and to be capable of supporting life in some form.

These facts make it natural that scientists and writers should speculate upon the character of the life upon Mars. It must as yet be speculation, for our means of seeing only enable us to distinguish objects several miles in extent upon the planet.

Many interesting theories about the life of Mars have been put forward, but all of them have been open to some objection. Professor Percival Lowell, of the Flagstaff Observatory in Arizona, has argued that the so-called canals of Mars are vast engineering works, and consequently that the inhabitants who built them were of great intellectual development. The scientific novelist, H. G. Wells, has built an extremely interesting story on the

basis that the Martians are octopus-like creatures, without bony structure, but possessed of highly developed brains. A common assumption of many speculators has been that the Martians are extremely attenuated creatures, because the slight pressure of gravity on the surface of the planet would favor this form.

Now a new and exceedingly interesting theory concerning the life on Mars has been put forward by Professor William Wallace Campbell, of the great Lick Observatory, California. He suggests that all life on Mars has taken a vegetable form.

This theory is one of the most plausible that has been put forward. It has the support of all the facts about Mars that have been scientifically established and it avoids many of the improbabilities involved in other theories on the same subject.

The vegetation theory rests primarily on the fact proved by spectroscopic analysis that there is an enormous proportion of carbonic acid gas in the atmosphere of Mars, which would make animal life of

the kind known to the earth exceedingly difficult, if not impossible, while it would greatly favor the development of vegetation.

Before considering this theory further, we must bear in mind a few of the proved facts about Mars. It has atmosphere, seasons, land, water, storms, clouds and mountains. It also rains and snows on Mars, as it does with us. Great white patches appear periodically upon its surface. These may be accumulations of snow and they have also been called "eyes." Their nature will be discussed later.

When Mars approaches nearest to the earth it is seen to have a bright red color and sometimes looks like a red lamp in the sky. It has been suggested that the vegetation for the most part is yellow or orange instead of green, as with us, thus giving the planet its color.

Mars has two moons, the nearest of which is but 3,700 miles away and revolves around the planet in seven hours and a half, showing all the phases of our moon in one night.

The density and size of Mars are less than those of the earth, and consequently a man who weighed 200 pounds here would only weigh 75 pounds up there.

The atmosphere and moisture of Mars are very slight, and the inhabitants, if there be any, must find life a difficult problem there. The water is confined entirely to the poles, where it is deposited annually in the form of a thin layer of snow or hoar frost, only to melt away again with the advent of summer.

Agon ago life on Mars must have concentrated itself on the problem of devising some means whereby the melting water of the polar parts might be conducted to these arid regions of the temperate

and torrid zones, which would still blossom if watered. Here we may note one of the strongest arguments in favor of the vegetation theory of life.

Professor Lowell has argued that the canals of Mars, first discovered by Professor Schiaparelli, of Milan but long considered optical illusions by many astronomers, are the irrigation works of the inhabitants. The canals are singularly artificial in appearance. They extend toward the equator from the poles and cover the planet like a fine netting.

Each canal is the shortest distance between two points and invariably runs to a point called "an oasis," where it meets other canals not in haphazard fashion, but according to some plan.

The "canals" vary in length from 250 miles to over 3,000 miles, a length that is astonishing when it is considered that the diameter of Mars is only 4,229 miles. All told, Professor Lowell has plotted 437 of these canals and 186 oases. It was Professor Pickering, a close associate of Professor Lowell, who first saw these oases.

The canals of Mars appear and disappear with the seasons. In other words they slowly creep down from the poles each Spring and slowly retreat with the approach of Winter. If the canals are artificial, in origin, this phenomenon would appear to mean that the Martians are busily engaged in digging stupendous canals, only to fill them up again every year.

Professor Pickering ingeniously avoided this embarrassing conclusion by pointing out that we see not the canals themselves, but the vegetation which fringes their banks and thus indicates their course. Vegetation must grow before the canals are visible and must disappear before the canals vanish.

Here we can see why the theory that all the life on Mars is vegetation is more probable than any other. Professor Pickering admits that the signs of life we see are vegetable, but suggests that they are the work of man-like creatures, whom we cannot see. But we know

Interesting Theory of Prof. Campbell, of Lick Observatory, That Explains the "Canals," "Eyes," and Other Puzzling Problems of Our Neighbor Planet

that it would be almost impossible for man-like creatures to live there. It is most likely then that vegetation is the only life.

From our knowledge of life on the earth, it is quite conceivable that the highest type of intelligence might dwell in a plant, as plants that we know possess more or less intelligence, and the fact that they may not possess the highest kind is due to conditions on the earth which do not exist on Mars.

The original germ of life on earth was neither animal nor vegetable. Many stages of development passed before the two forms of life became separated. Now in the scale of life we now see many forms of which it cannot be said positively that they are

But there are some plants on earth which do possess a kind of nervous system, and it is quite reasonable to believe that they would have developed an intelligence at least equal to that of man if conditions had been favorable. Such conditions have prevailed on Mars. Chief among them is an atmosphere very favorable to plant life and very unfavorable to animal life.

There are on the earth many carnivorous plants which though unmistakably vegetable in form possess many of the powers of animals. These plants include the butcher plant, pitcher plant, the sundew, the butter wort and many other forms. They range from plants that eat insects to those that are capable of devouring birds and small mammals.

The pitcher plant, for instance, has a heavy flesh leaf ten inches long. With the spiked point of the leaf it strikes a rat, numbing it with the poison it contains. Then the leaf folds over the animal and it is absorbed into the body of the plant and digested.

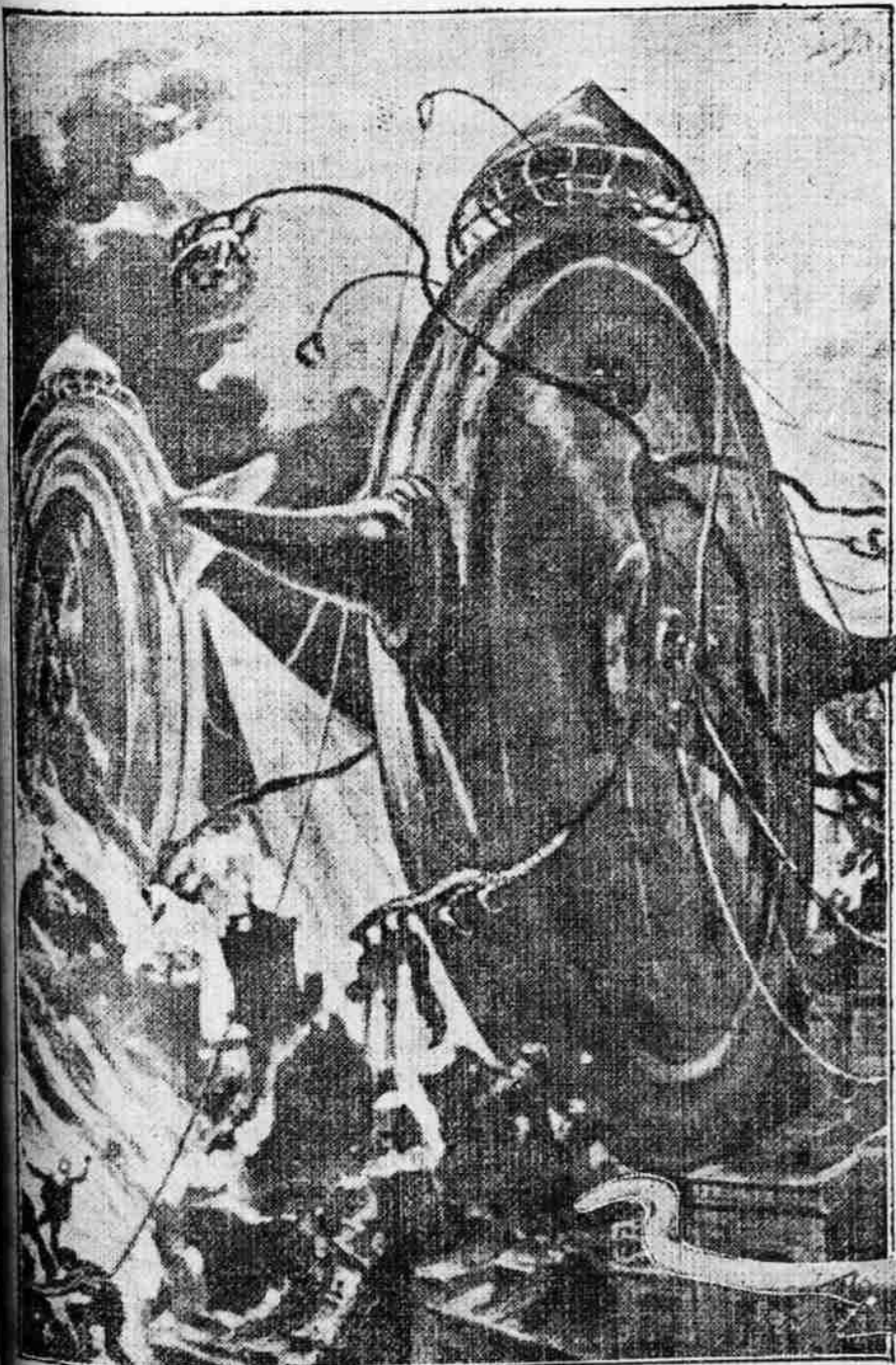
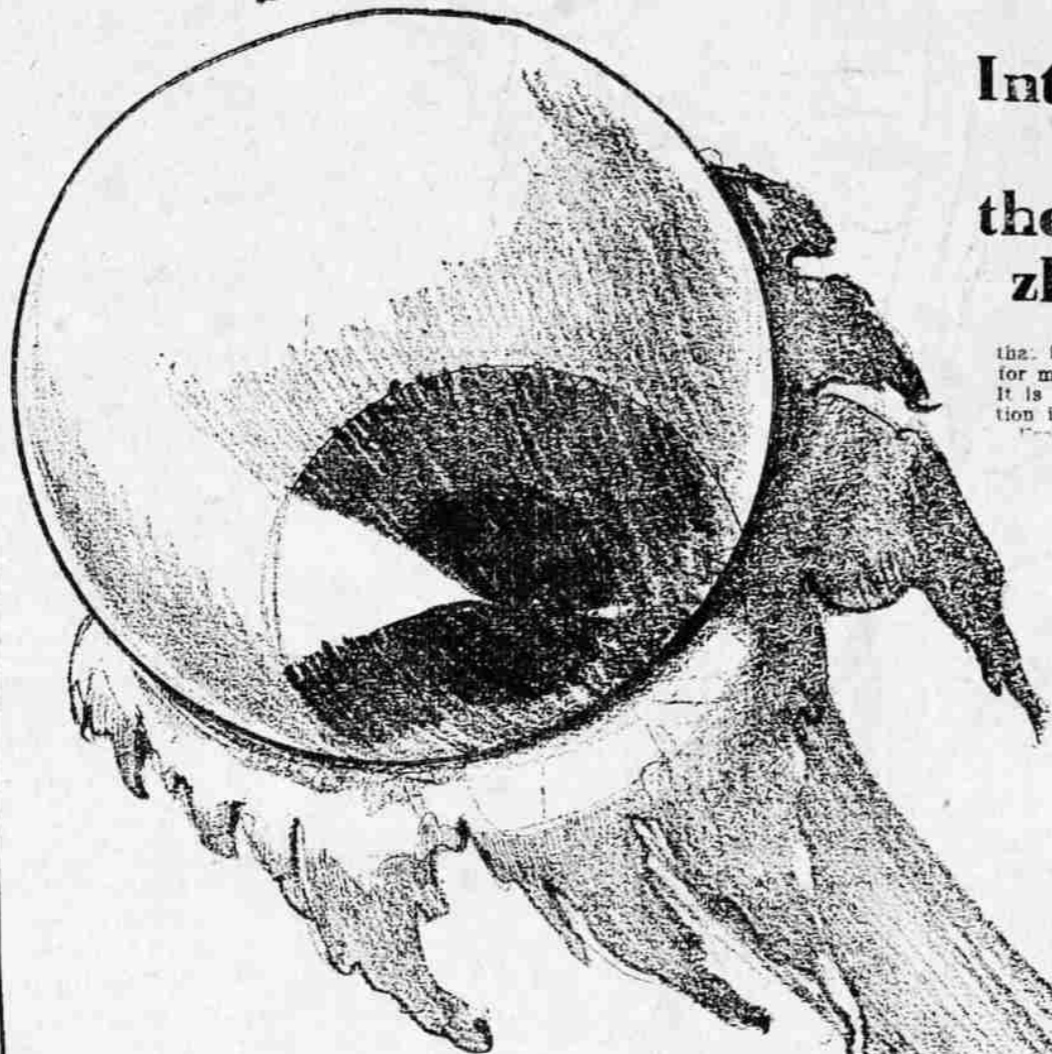
Other plants, such as the spider-

body over the planet, growing in bright orange colored forms. As the heat departs these forms die down and hide their life in the soil till the following season. This produces the appearance of "canals" to us. The reason these canals have such a regular form is that the vegetation follows the lines of regular cracks which occurred in the crust of Mars when it was drying up.

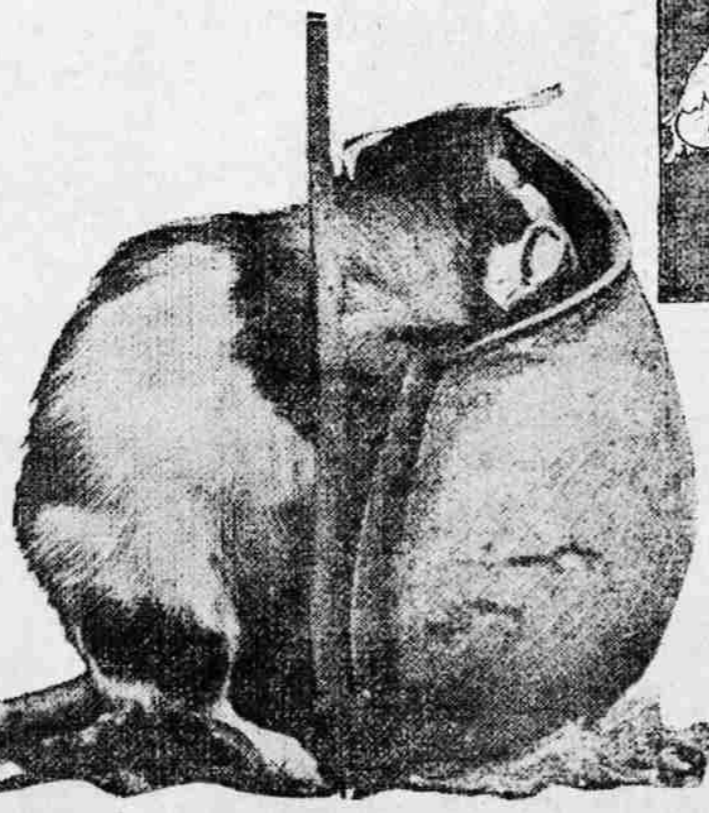
The vast intellect of Mars is occupied with the problems of gaining subsistence from the dying planet and then with investigations of the boundless universe that lies within its sight.

The white spot which we sometimes see on Mars is not a pile of snow, but really an "eye." Supported on a tenuous flexible transparent column, it can raise itself miles above the surface of the planet and watch the operations of its vegetable body at any point.

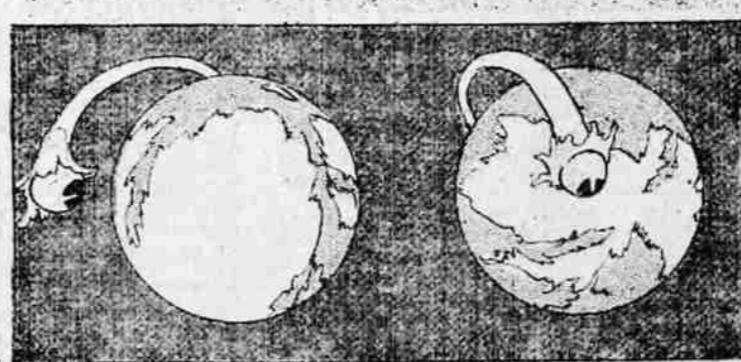
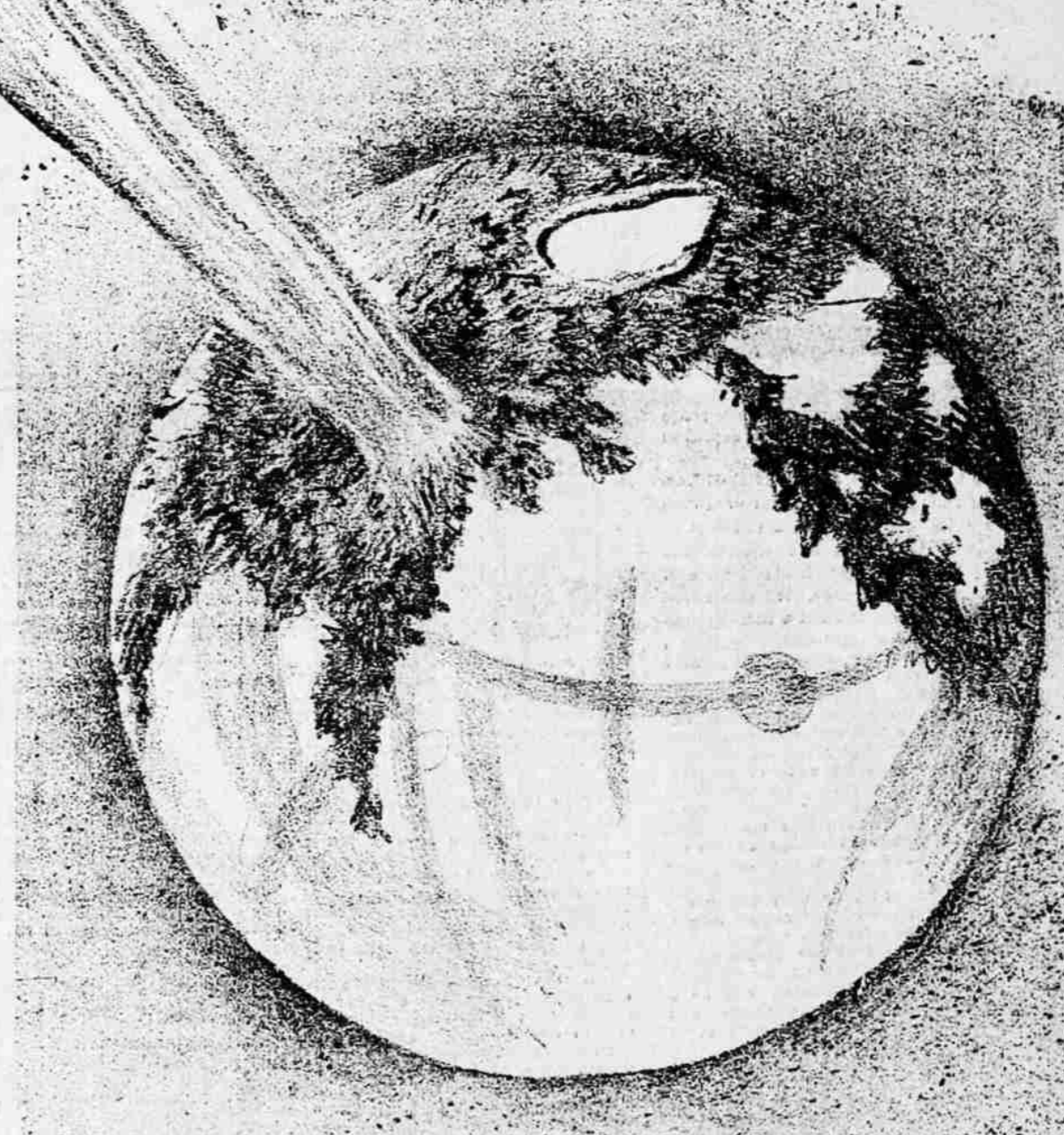
That the movements of this planetary eye should have escaped observation from the eye is not surprising. The canals on Mars have only been seen by a few astronomers, and many excellent scientists



The Martian Was Conceived by H. G. Wells to Be an Octopus-Like Creature Without Bony Structure but Having a Highly Developed Intelligence. Drawing by H. Lanos.



The Pitcher Plant Devouring a Rat, an Instance of Plant Life, Possessing Animal Powers.



"A vast eye, upon a tenuous, flexible, transparent neck raises itself high above the surface of Mars and can watch the growth of its vegetable body upon any part of the surface." The Small Diagrams Below Illustrate the Operation of the Planetary Eye.

plants of vegetable. When disease bacteria were first observed it was believed that they were animal, but now the prevailing view is that they are vegetable. Yet they possess the power of motion generally characteristic of animals.

One of the great differences between plants and animals is that the former have not a brain and nervous system, which can be compared to that of the latter. The life of the plant resides in its separate cells and they are only held together by their juxtaposition to one another and not controlled by a central system.

work, possess eyes, which enable it to turn toward the sunlight. These eyes bear a close resemblance to human eyes and it has been proved by photography that they receive images of objects which lie in their range of vision.

These facts indicate the possibilities of vegetable intelligence. Ages ago, according to the newly advanced theory, all life on Mars took the vegetable form. Animal races then existing were consciously or unconsciously absorbed into the vegetable races.

The vegetable life, possessed of true intelligence, then evolved into one organic whole in order to obtain the greatest advantage from the limited means of sustenance. Life on Mars is now one vast intellect supported by a vegetable body having its roots in the soil. Such a conception of life resembles the vast being into which the Buddhists say all men will be absorbed.

As the Summer comes on the huge being on Mars stretches its

dentated their existence for years after they were first observed. They continued to do so until photographs were taken of the canals. The shifting of the "eye" on Mars, already observed by our telescopes, may very possibly have been due to a movement on a transparent neck as described here, the neck itself not being visible.

The "eye" exercises the functions of watching climatic conditions all over its vegetable body, of sending help to parts in need and of conveying external impressions to the great central intelligence. This vegetable body possesses the power of distributing strength to its various parts and of devising new means of extracting nourishment from the soil and atmosphere.

When not engaged in watching the physical condition of its body, the great "eye" makes observations of the earth, sun planets, stars and the whole universe. From its vast side it is able to see more and farther than all the telescopes of our earth put together.