# SCIENCE:

A WEEKLY NEWSPAPER OF ALL THE ARTS AND SCIENCES.

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Communications will be welcomed from any quarter. Abstracts of scientific papers are solicited, and twenty copies of the issue containing such will be mailed the author on request in advance. Rejected manuscripts will be returned to the authors only when the requisite amount of postage accompanies the manuscript. Whatever is intended for insertion must be authenticated by the name and address of the writer; not necessarily for publication. but as a guaranty of good faith. We do not hold ourselves responsible for any view or opinious expressed in the communications of our correspondents Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The Exchange" column is likewise open.

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### THE BOTANICAL MYTHOLOGY OF THE HINDOOS.

AT a recent meeting of the Anthropological Society of Bombay, as we learn from Nature of Nov. 13, Dr. Dymoke read a very interesting paper entitled "The Flowers of the Hindoo Poets," in the course of which he referred to the mythical conceptions which have gathered round trees and plants in the minds of the Hindoos. the ancient Eastern poets saw in the tree a similitude with the heavens and with the human form. In the "Gitagovinda" a comparison is drawn between the clouds and the thick dark foliage of the Tamala. These fancies gave rise to the numerous poetical myths concerning the tree of life, of knowledge, of the Amrita or ambrosia, as well as those concerning cosmogonic and anthropogonic trees. The Soma or Amrita is represented as the king of plants, the eternal essence which constantly sustains and renews the life of plants and animals. It is the symbolical drinking of this eternal essence as a holy ceremony to which constant allusion is made in the Vedas:-

> "We've quaffed the Soma bright, And are immortal grown; We've entered into light. And all the gods have known."

Rig Veda, viii.

The Amrita appears in various forms in stories and legends. A famous poet says that the drop (Svedavindu) which fell into the

shell became a pearl; in the mouth of the black snake it became poison; and in the flower of the plantain, nectar. Several plants bear this name, and are supposed to be endued with an extra particle of the eternal essence, among others the Neem, on which account the Hindoos, on their New Year's Day, eat the leaves of this tree upon the supposition that the Amrita contained in them will insure longevity. In Hindoo flower-lore the large black bee (Buramara) plays an important part: he is the inconstant lover who delights in gathering sweets from every flower. The queen of Indian flowers is the lotus. The Hindoos compare the newly created world to a lotus-flower floating upon the waters, and it thus becomes symbolical of spontaneous generation. The golden lotus of Brahminic and Buddhistic mythology is the sun, which floats in the waters which are above the firmament, like an earthly lotus in the deep blue stream below. From it distils the Amrita, the first manifestation of Vishnu. Brahma and Buddha (the supreme intelligence) were born of this heavenly lotus. Lakshmi, the Indian Venus, is represented sitting on this flower. The Hindoos see in the form of the lotus the mysterious symbol Svastika. The allusions to this flower by Indian poets are innumerable. No praise is too extravagant for it. It is the chaste flower, and its various synonymes are bestowed as names upon women. The red lotus is said by the poets to be dyed with the blood of Siva, that flowed from the wound made by the arrow of Kama, the Indian cupid. The face of a beautiful woman is compared by the poets. to a lotus-blossom, the eyes to lotus-buds, and the arms to its filaments. The bee is represented as enamored of the lotus. Although a humble little flower, the Tulasi is almost as great a favorite as the lotus. It is addressed to the goddess Sri or Venus. The heart of Vishnu is said to tremble with rage if a branch of his beloved is injured. The plant must be gathered only for medicinal or religious purposes, such as the worship of Vishnu or Krishna, or the wife of Siva. It is a kind of Amrita, symbolical of the eternal essence. It protects the worshippers, and gives children to women. The plant is often worshipped as a domestic deity, and its branches are placed on the breasts of the dead. The Champa is chiefly celebrated for its overpoweringly sweet odor and golden color. So strong is its perfume that the poets affirm that bees will not extract honey from it; but they console it for this neglect by dedicating it to Krishna, who loves garlands of yellow flowers as becoming to his dark complexion. One of the greatest favorites of the poets is the Asoka. Its flowers, which are yellow when they first open, gradually change to red. In March and April it is in its glory, and at night perfumes the air with its delicate odor. The tree is the kul, or anthropogonic tree of the Vaisya caste, who call it Asupala. The kadamba (Anthrocephalus cadamba) is sacred to Kali or Parvati, the consert of Siva. It has many synonymes, such as "protecting children," "dear to agriculturists," etc. It blossoms at the end of the hot season, and its night-scented flowers. form a globular orange-colored head, from which the white-clubbed stigmas project. The flowers are fabled to impregnate with their honey the water which collects in holes in the trunk of the tree. In Delhi the goldsmiths are fond of imitating the flowers. The well-known prickly gold beads so often seen in Delhi jewelry are meant for kadamba-flowers. In this part of India the Marathaswill not gather the flowers for profane purposes, as it is their anthropogonic tree. The Kadamba Rajas claim their descent from it, as recorded in the following legend: "After the destruction of the demon Tripura, a drop of perspiration fell from the head of Isvara into the hollow of a kadamba-tree, and assumed the form of a man with three eyes and four arms. He became the founder of Vanavasi or Jayantipur." There are other versions of the story, but all agree in connecting the origin of the family with this tree, a branch of which is necessary to represent the Kai at a Marathia marriage ceremony.

### HEALTH MATTERS.

### Adventure of an Hypnotic Subject.

THE Lancet of Aug. 2, 1890, contains the following: In Rome the other day, in that church of the Ara Cœli where Gibbon. as he himself tells us, conceived his "History of the Decline and SCIENCE.

Fall" of the empire, a young man of foreign appearance, about five in the evening, was seen to be making the round of the several chapels. Suddenly he stopped before the altar of St. Francis of Assisi, and remained in rapt attention before the picture of the saint. More than an hour elapsed, and he was still seen standing, perfectly motionless, his eyes fixed on the well-known painting. At last the custode, as it was time to close the church, told him that he must withdraw. The stranger seemed not to hear, and moved neither a foot nor a muscle, still gazing as if in ecstasy at the picture. The custode shook him, and urged him to go, but in vain, till at length the Municipal Guard were called in, and the young man was lifted bodily from the pavement, and taken first to the station-house, and then to the Ospedale della Consolazione. The guard had tried to bring him to consciousness by dashing water in his face and shaking him; but, finding these measures ineffectual,—the man remaining with his eyes fixed on some invisible object above, and not a muscle of his body stirring,—they brought him to the medical waiting-room of the Consolazione. There the physicians immediately pronounced the case to be one of hypnotism, and, after various remedies had been tried without success, they at last succeeded in bringing him to consciousness by hypodermic injections of ether. On coming to himself, the patient turned out to be a Bavarian; and one of the attachés of the German Embassy, who had been summoned, identified him as a young, recently graduated physician of Munich, who had been subject to hypnotic fits for some time past. Thanking all the officials-medical, municipal, and diplomatic-for the care and kindness he had experienced at their hands, he returned to his hotel. The Roman press, commenting on the occurrence, remarks that two or three centuries ago the same phenomenon would have been regarded as treasure-trove by the church, and the chapel of St. Francis of Assisi, in the Ara Cœli, would have attracted crowds of pilgrims eager to come under the direct influence of the saint. Medical science, however, may now say, "Nous avons changé tout cela."

## The Protection from Diphtheria and Tetanus by Inoculation.

The Berlin correspondent of the Medical Record has cabled to that journal under date of Dec. 4 that he has received advanced proofs of an article on the prevention of diphtheria and tetanus in animals, based upon experiments in the Hygienic Institute at Berlin, made by Dr. Behring, assistant in the institute, and Dr. Katasato of Tokio. He states that after long experimentation, these observers claim to have cured animals suffering from either of these diseases—diphtheria and tetanus—by the inoculation of the serum from the blood of animals already infected. It is claimed by a large number of experiments, first, that the blood of rabbits protected from tetanus possesses the property of destroying the tetanus poison; second, that this property is possessed by the non-cellular serum obtained from the blood; third, that this property is of so constant a nature that it also remains active in the organism of other animals, so that notable therapeutic effects are produced by the transfusion of blood or serum; fourth, that the property of destroying the tetanus virus is absent in the blood of those animals which are not protected against tetanus, and, if the tetanus virus is injected into non-protected animals, it can be so demonstrated, even after the death of the animals, in the blood and in the other fluids of the body.

# The Curability of Galloping Consumption.

The announcement by so well known a physician as Dr. McCall Anderson that acute phthisis, or galloping consumption, is curable, excites a good deal of surprise and quite as much incredulity; yet the *Medical Record* states that Dr. Anderson reports seven cases of this character, of which five recovered.

#### Cancer Mortality among the Jews.

An English paper (quoted by the Medical Record) states that one of the lecturers at Owens College, Manchester, has put forward the assertions (1) "that no Jew or Jewess has ever been known to suffer from cancer;" and (2) that "the immunity of the Hebrew race from this frightful scourge was attributed to their abstinence from swine's flesh."

### The Micro-Organisms of Standing Water.

Drs. Scala and Alessi, according to La Rivista Internazionale d'Igiene for August, have completed a series of experiments demonstrating that micro-organisms multiply in standing water at the expense of the organic matter liberated in the water, this multiplication being but slightly influenced by a temperature a little above zero. They note the fact that micro-organisms diminish in water charged with carbonic acid. After demonstrating that light, movement, pressure, and cold have no influence on these micro-organisms, they experimented directly with carbonic acid, their experiments resulting in the proof of the lethal action of carbonic acid on the micro-organisms of water. This action they consider analogous to that by which other ferments die in liquids produced by themselves.

#### LETTERS TO THE EDITOR.

 $*_*$ \* Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

The editor will be glad to publish any queries consonant with the character of the journal.

On request, twenty copies of the number containing his communication will be furnished free to any correspondent.

#### Right-Handedness.

ANENT the articles in *Science* upon right-handedness and effort, by Professors James and Baldwin, it may not be amiss to call attention to the anatomical and physiological conditions that offer at least one explanation of right-handedness in most persons.

That one cerebral hemisphere stands in dominant relation with the opposite side of the body is so well known that it is only mentioned as a reminder; but it may not be generally known that the left cerebral hemisphere is larger than the right, its inner face (at the great longitudinal fissure) coming very near to the middleline, while the corresponding inner edge of the right hemisphereis well to the right of the median line. The existence, then, of greater nutrition and greater functionating ability in the lefthemisphere might well be assumed. But that there is a reason for the greater size, development, etc., of the left hemisphere, is evidenced by a study of the conditions of blood-supply to the two hemispheres. The left carotid artery ascends almost perpendicularly so as to form, as it were, an elongation of the ascending aorta, while the right carotid is given off from the arteria innominata. The right vertebral artery is given off by the subclavian after the latter has described its arch and become horizontal, but the left vertebral arises from the apex of the subclavian's curve. There is thus the distinct advantage to the left hemisphere of a better blood-supply because of the much straighter course taken by the great channels carrying it. On the other hand, this greater directness of communication between the heart and left hemisphere explains the greater readiness with which the latter is subjected to certain forms of disease. A clot of fibrine whipped off a diseased valve is carried much more readily because of the direct route (via the carotid) to the left hemisphere; and in conditions of degenerative weakness of the arteries in general, those of the left hemisphere, being subjected to greater pressure in their distal ramifications, will be more apt to yield than corresponding ones in the right.

In passing, it may be mentioned that the location in the left hemisphere of the centres connected with the faculty of language is explainable on the ground of better development of that hemisphere. An admirable lecture on this subject by Professor Gerhardt appeared in *Berliner klinische Wochenschrift*, No. 18, 1887.

Concerning the different periods at which different motor activities become manifested in the human infant, it is well to remember that the voluntary motor tract is not completely developed in the human being until after the end of the first year (Flechsig), and that the fibres developing from the occipital cortex only begin to appear between the second and third months of extra-uterine life. Upto the latter period, motor activities following visual stimulation must be considered as reflex; but the use of the right hand predominantly, or at a later period from conscious choice, is a conse-