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A recent case of mushroom intoxication  
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SCIENCE

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HARRY A. CURTIS, assistant professor of chemistry at the University of Colorado, has returned after a year's leave of absence, during which time he took graduate work in chemistry at the University of Wisconsin, receiving the degree of doctor of philosophy.

MR. GEORGE H. CHAPMAN has resumed his duties as assistant botanist at the Massachusetts Agricultural Experiment Station after a year spent at the University of Prague with Dr. F. Czapek.

DR. WILLIAM J. MILNE, president of the New York State College of Teachers in Albany and author of mathematical text-books, died on September 4, at the age of seventy-one years.

DR. BELA HALLER, associate professor of zoology at Heidelberg, has died at the age of fifty-six years.

UNIVERSITY AND EDUCATIONAL NEWS

SEVERAL citizens of Toronto have agreed to contribute \$15,000 for five years to enable the University of Toronto to increase its research work.

THE will of Mrs. Josephine A. Binney gives \$10,000 to the Women's College of Brown University.

THE Henry S. Denison Memorial Building, for Medical Research at the University of Colorado, has now been made ready for use. It contains laboratories for research in bacteriology, pathology, physiology, chemistry and clinical methods.

IT is believed that in Oxford and Cambridge the number of undergraduates in residence next term will be reduced by one half.

DR. R. M. STRONG, of the department of zoology of the University of Chicago, has accepted the chair of anatomy at the University of Mississippi.

IN the department of physiological chemistry of the Jefferson Medical College, Raymond H. Miller, B.S. (Pennsylvania State), and J. O. Halverson, M.S. (Missouri), have been appointed instructors. Martein E. Reh-fuss, M.D. (Pennsylvania), after spending three years in study abroad, has been ap-

pointed research associate, and Olaf Bergheim has been promoted to be a demonstrator.

MAXWELL SELLMAN, M.S., formerly instructor in physiological chemistry in Jefferson Medical College, has been appointed instructor in chemistry in the medical school of Baylor University, at Dallas, Texas.

AMONG appointments at the University of Montana are the following: L. S. Hill, assistant professor of mathematics and astronomy; Dr. Fred. H. Rhodes, of Cornell University, instructor in chemistry, and A. W. L. Bray, a graduate of Cambridge and London, instructor in biology.

DR. H. C. STEVENS, associate professor of psychology in the University of Washington, has been appointed associate professor of education in the University of Chicago.

A. VINCENT OSMUN, assistant professor in the department of botany of the Massachusetts Agricultural College, has been made associate professor, and F. A. McLaughlin, of the same department, has been promoted to the rank of instructor.

DR. W. P. GOWLAND, of the University of Liverpool, has been appointed to the chair of anatomy at the University of Otago, Dunedin, New Zealand.

DISCUSSION AND CORRESPONDENCE

A RECENT CASE OF MUSHROOM INTOXICATION

ALTHOUGH it has been stated, in standard works on fungi, that a common and otherwise edible species (*Panæolus popilionaceus*) sometimes has intoxicating properties, it seems desirable to record the recent experience of two persons who ate considerable numbers of this species, unmixed with other kinds.

They were familiar with this species and various others, and had on several occasions eaten it in small numbers, mixed with other kinds, without noticeable effects. This is a small, rather delicate, umbrella-shaped mushroom, which is common on cultivated land, planted to farm crops.

Mr. W., whose narrative is here given, is a middle-aged, vigorous man, strictly temperate in his habits. He is a good botanist, and has made a special study of fungi. The account

of his experience was dictated to me by him about a week after the event, while fresh in his memory.

The lady referred to as Mrs. Y., who also ate the mushrooms, is his niece by marriage. Her husband (Mr. Y.) was present, but ate no mushrooms. He could observe some things not noticed by the victims, both of whom experienced nearly the same effects. Mrs. Y. also gave the writer a personal account of some of her symptoms, essentially the same as those here narrated. This article in its present form has been read by Mr. W. and approved by him.

The parties are natives of Oxford County, Maine, where the event occurred. Their real names are withheld, by request. The effects experienced are in some respects similar to those caused by hashish; others are like those experienced by some opium smokers, especially the multiplication of objects and their bright colors. The appearance of vivid colors recalls the symptoms described by Dr. Weir Mitchell, when he took Mexican mescal pills, as an experiment. The loss of the power of estimating time and distance, as in some dreams, is interesting, as existing when other faculties were active.

#### *Narrative of Mr. W.*

On July 10, 1914, I gathered a good mess of the mushrooms (*Panæolus papilionaceus*) and had them cooked for dinner. There may have been about a pound of them as gathered, but when fried in butter they made no great quantity, owing to their softness and delicate structure.

They were all eaten by Mrs. Y. and myself. Peculiar symptoms were perceived in a very short time. Noticed first that I could not collect my thoughts easily, when addressed, nor answer readily. Could not will to arise promptly. Walked a short distance; the time was short, but seemed long drawn out; could walk straight but seemed drowsy; had no disagreeable stomach sensations, effects seemed entirely mental; remember little about the walk. Mrs. Y. was in about the same condition, according to Mr. Y. My mind very soon

appeared to clear up somewhat, and things began to seem funny, and rather like intoxication. Walked with Mr. Y. A little later objects took on peculiar bright colors. A field of redtop grass seemed to be in horizontal stripes of bright red and green, and a peculiar green haze spread itself over all the landscape. At this time Mrs. Y. saw nearly everything green, but the sky was blue; her white handkerchief appeared green to her; and the tips of her fingers seemed to be like the heads of snakes.

Next, say about half an hour after eating, both of us had an irresistible impulse to run and jump, which we did freely. I did not stagger, but all my motions seemed to be mechanical or automatic, and my muscles did not properly nor fully obey my will. Soon both of us became very hilarious, with an irresistible impulse to laugh and joke immoderately, and almost hysterically at times. The laughing could be controlled only with great difficulty; at the same time we were indulging extravagantly in joking and what seemed to us funny or witty remarks. Mr. Y., who was with us, said that some of the jokes were successful; others not so, but I can not remember what they were about.

Mr. Y. says that at this time the pupils of our eyes were very much dilated, and that Mrs. Y. at times rolled up her eyes and had some facial contortions, and slight frothing of saliva at the mouth. Later we returned to the house, about one quarter of a mile. At this time I had no distinct comprehension of time; a very short time seemed long drawn out, and a longer time seemed very short; the same as to distances walked; though not so when estimated by the eye. The hilarious condition continued, but no visual illusions occurred at this time.

After entering the house, I noticed that the irregular figures on the wall-paper seemed to have creepy and crawling motions, contracting and expanding continually, though not changing their forms; finally they began to project from the wall and grew out toward me from it with uncanny motions.

About this time I noticed a bouquet of large

red roses, all of one kind, on the table and another on the secretary; then at once the room seemed to become filled with roses of various red colors and of all sizes, in great bunches, wreaths and chains, and with regular banks of them, all around me, but mixed with some green foliage, as in the real bouquets. This beautiful illusion lasted only a short time. About this time I had a decided rush of blood to my head, with marked congestion, which caused me to lie down. I then had a very disagreeable illusion. Innumerable human faces, of all sorts and sizes, but all hideous, seemed to fill the room and to extend off in multitudes to interminable distances, while many were close to me on all sides. They were all grimacing rapidly and horribly and undergoing contortions, all the time growing more and more hideous. Some were upside down.

The faces appeared in all sorts of bright and even intense colors—so intense that I could only liken them to flames of fire, in red, purple, green and yellow colors, like fireworks.

At this time I began to become alarmed and sent for the doctor, but he did nothing, for the effects were wearing off when he came. Real objects at this time appeared in their true forms, but if colored they assumed far more intense or vivid colors than natural; dull red becoming brilliant red, etc. A little later, when standing up, I had the unpleasant sensation of having my body elongate upward to the ceiling, which receding, I grew far up, like Jack's bean-stalk, but retained my natural thickness. Collapsed suddenly to my natural height.

At this time I noticed the parlor organ and tried to play on it, to see the effect, but could not concentrate my mind nor manage my fingers. About this time my mind became confused and my remembrance of what happened next is dim and chaotic. Probably there was a partial and brief loss of consciousness. Laid down to wait for the doctor. Looking at my hands, they seemed to become small, emaciated, shrunken and bony, like those of a mummy. Mrs. Y. says that at this time her hands and arms seemed to grow unnaturally large.

When I attempted to scratch a spot on my neck, it felt like scratching a rough cloth meal-bag full of meal, and it seemed as large as a barrel, and the scratching seemed quite impersonal. Later I imagined I was able, by a sort of clairvoyance, to tell the thoughts of those around me. Soon after this our conditions rapidly assumed the very hilarious phase, similar to that of the early stages, with much involuntary laughing and joking. This condition gradually diminished after three o'clock, until our mental conditions became perfectly normal, at about six o'clock P.M. The entire experience lasted about six hours. No ill effects followed. There was no headache, nor any disturbance of the digestion.

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#### SCIENTIFIC BOOKS

*Plane Trigonometry and Applications.* By E. J. WILCZYNSKI, Ph.D., University of Chicago. Edited by H. E. SLAUGHT, Ph.D., University of Chicago. Boston, New York and Chicago, Allyn and Bacon. 1914. Pp. xi + 265.

*Elementary Theory of Equations.* By L. E. DICKSON, Ph.D., University of Chicago. New York, John Wiley & Sons. 1914. Pp. v + 184.

Among the prominent features of the former of these two elementary text-books is the fulness of its explanations of fundamental processes. In fact, it might at first appear that nothing was left for the teacher to explain, but the numerous illustrative examples and problems should serve to awaken discussion and to enliven the recitation periods. The clearness with which the fundamental ideas are developed tends to make the book unusually easy for the student.

The book is divided into two nearly equal parts. The first part is devoted to the solution of triangles, and is published separately for the use of secondary schools. In this part practical applications to surveying are emphasized, and the use of the slide rule and the logarithmic tables are clearly exhibited. The