

# SCIENTIFIC JOTTINGS.

THROUGH recent investigations of Pringsheim considerable new light has been thrown upon the functions of chlorophyll, and new views have been obtained of certain things in plant physiology. He operated by bringing a condensed ray of sun-light, deprived of its heating power where necessary, to bear upon the chlorophyll grains in a leaf-cell. The effects produced were, first a complete destruction of the green coloring matter; secondly the gradual death of the cell as evidenced by the cessation of cyclosis or cell circulation; and lastly the complete destruction of the cell contents, leaving the dead cell wall behind.

According to Pringsheim these results are due to the action of the rays situated towards the actinic extremity of the spectrum, being readily brought about by blue light, but not taking place, even after some time, under the influence of red light.

He moreover shows that the action is a true combustion since it goes on only when the cells are surrounded by an atmosphere containing oxygen.

From this it would appear that under a sufficiently intense sunlight plants would first lose their green color and then die, the chlorophyll and protoplasmic matter being actually burnt up.

It would consequently seem reasonable to suppose that even under a moderate degree of sunlight, such as we experience upon any sunny day, a certain but limited amount of combustion goes on in the plant cell. If this be so, then we have an operation in plant life precisely similar to the function of respiration in animals.

But this investigation has further shown that while the chlorophyll remains, the protoplasmic mass is unaffected by light, but that the colorless granules in the protoplasm gradually disappear. Hence he looks upon the chlorophyll as a regular of the process of respiration.

Under this view of the functions of chlorophyll it is easy to understand the nature of etiolated plants; for growing in localities furnished with an insufficient amount of light the process of respiration goes on so slowly that no regular is needed.

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## COLLEGE WORLD.

JOSH BILLINGS, *alias* Henry W. Shaw, graduated with the class of '37 at Hamilton College, Clinton, N. Y.

HARVARD and Princeton Colleges will give the degree of M.A., only to those who take a special post-graduate course.

MISS BAKER, a young lady only 16 years of age, has been appointed a tutor in Greek in Simpson College, Indianola. She reads and writes Greek fluently, and at fourteen had made a complete lexicon of one of Sophocles' tragedies.

The chair for instruction in the Chinese language which was lately established at Harvard is for the benefit of those who wish to enter into the service of the Chinese Government. Some of the English speaking people have found employment in the custom's service of China, and the Government finding them so efficient are asking for more. The form of the language to be taught is the official dialect. It will be no joke to obtain the mastery of the tongue. One gentleman says a faithful student may get a fair hold on the language in three years' time, another says four and a half hours a day for 18 mos. will secure a fair mastery of it. It is stated that there are 145 modulations of tone and 4,000 vocables in the Pekin dialect, and that 20,000 com-

bination characters are said to be "sufficient for the use of beginners." The name of the Professor is Ko-kun-hua, which the boys have already shortened to Prof. Ko. He has with him a wife, five children and two servants who all wear the Chinese dress, and have not yet been seduced from their national food by the charms of pumpkin pie and baked beans.

The number of students in American Colleges in 1856 was 8,438, now about 30,000 are in attendance.

At Amherst, the Juniors recite in German at 6:30 a.m.

DARTMOUTH has had a gift of \$10,000 to found a chair of Anglo-Saxon.

The faculty of Oberlin College has made half an hour's gymnasium exercise compulsory upon the students for four days in the week.

It is said that in the Cornell Library of 40,000 volumes, there is not a single work of fiction.

COLUMBIA boasts a Cricket Club.

A WRITER in the *White and Blue* asks for a chair of Civil Polity for Toronto University.

HARVARD was victorious over the Britannia team of Montreal in a foot ball match on Oct. 25.

THE University at Notre Dame, Indiana, which was burned last April has been rebuilt and is now occupied.

WILLIAM and Mary College is soon to close from lack of support. It is the second oldest college in the country, holding its first commencement in 1700.

THE campus at Cornell University is illuminated every night with electric lights at the expense of a cent an hour. —*Acta*.

A PRACTICAL course of instruction in architecture has been arranged in the Yale school of Fine Arts.

ETON College, England, has established a factory, in which various mechanical appliances are to be erected, so that the boys may be taught the practical use of the tools.

It is stated that one of the head waiters at one of the hotels in the White Mountains, last summer, was a Harvard graduate of the class of 1876. While superintending the dining-room he prepared for the ministry.

GEO. I. SENEY, President of the Metropolitan Bank, N.Y., has given \$50,000 to Wesleyan University at Middletown, Conn.

HARVARD was founded in 1638—the oldest college in America.

COLLEGE papers are published by 200 colleges in this country.

## PERSONAL.

JOSEPH WHITE, B.A., '77, is now to be found at Trinity College, Toronto, where he is preparing to enter the ministry of the Church of England. We notice that the Trinitarians have already found out Joe's strong point for we see his name among the members of their foot ball team.

We tender (though he did neglect to send us a notice) our heartiest and united congratulations to John Pringle, B.A., '75, who on the 23rd of September last, by the Rev. Dr. Cook, assisted by the Rev. Leroy Hooker, was united by Hymen's chains to Miss Bignell, of Quebec. Irresistible associations compel us to inform Mrs. Pringle that if her husband prove as great a success in the capacity he has just assumed as he did as a footballer, she will never repent her act.