

again to sons of Cambridge for spiritual refreshment, to the verse of Milton, of Byron, of Wordsworth and Tennyson, all richly imbued with the nature spirit, or to the no less masterly prose of Thackeray and Macaulay?

Far away are the giant forces of our republic, the roar of her machinery and her world of trade, yet the independence of her development is more apparent than real. There still prevails the potent unifying influence of mind and motive, bred in quiet places like this, ever creating the new generations of leaders in science, in literature and in government, and ever renewing the strong bonds of friendship and of union.

What can we add to the chorus of appreciation of the great pupil of Christ's which has come from college, press and pulpit since the opening of this anniversary year? Only a few words of personal impression.

To us, Darwin, more perhaps than any other naturalist, seems greatest in the union of a high order of genius with rare simplicity and transparency of thought. Dwelling on this lucid quality and on the vast range of his observation from the most minute to the grandest relations in nature, does not the image arise of a perfected optical instrument in which all personal equation, aberration and refraction is eliminated and through which, as it were, we gaze with a new vision into the marvelous forms and processes of the living world. With this wondrous lens our countrymen, Cope and Marsh, penetrated far deeper into fossil life than their predecessor Joseph Leidy—thus the arid deserts of the Rocky Mountain region gave up their petrified dead as proofs of Darwinism. Through its new powers Hyatt, Morse, Packard and Brooks saw far more than their master Louis Agassiz, and drew fresh testimonies of development from the historic waters of New England. From the very end of the new world, where the youthful Darwin received his first impressions of the mutability of the forms of life, we enjoy a clearer vision of the ancient life of Patagonia.

What of Darwin's future influence?

While it is doubtful if human speculation about life can ever again be so tangential as

in our pre-Darwinian past of fifty years ago, it is probable, in fact it is daily becoming more evident, that the destiny of speculation is less the tangent than the maze—the maze of innumerable lesser principles, with as many prophets calling to us to seek this turning or that. There are those who in loyal advocacy of his system feel that we shall not get much nearer to life than Darwin did, but this is to abandon his progressive leadership, for if ever a master defined the unknown and pointed the way of investigation, certainly it was Darwin. In the wonderful round of addresses in his honor of this Centennial Year, and in the renewed critical study of his life and writings—the recognition that Darwin opened the way has come to many with the force of a fresh discovery. It is true that he left a system, and that he loved it as his own, but his forceful, self-unsparing and suggestive criticism show that if he were living in these days of Waagen, of Weismann, of Mendel and of De Vries, he would be in the front line of inquiry, armed with matchless assemblage of fact, with experiment and verification, and not least with incomparable candor and good will. This bequest of a noble method is hardly less precious than the immortal content of the "Origin of Species" itself.

In conclusion, we delegates, naturalists and friends, desire to present to Christ's College, as a memorial of our visit, a portrait of Charles Darwin in bronze, the work of our countryman, William Couper, a portrait which we trust will convey to this and future generations of Cambridge students, some impression of the rugged simplicity, as well as of the intellectual grandeur, of the man we revere and honor.

---

#### PERIDERMIIUM STROBI KLEBAHN IN AMERICA

DURING the past few years several millions of young trees of white pine (*Pinus Strobus*) have been imported from Europe and distributed in the northeastern states. This has been done in spite of the obvious danger of bringing in insect pests and the fungus *Peridermium Strobi* Klebahn. The latter is not

known to occur in America, but is generally distributed in Europe, where in certain sections it is very destructive. It is mentioned as being abundant about Hamburg, where are located some of the largest forest tree nurseries of the world.

The writer has repeatedly examined imported white pine trees, anticipating the introduction of this disease, and, on June 8, succeeded in finding it. This is its first reported occurrence on white pine in America. Continued investigations now show that *Peridermium Strobi* is present on imported stock in the states of New York, Vermont, Massachusetts and Connecticut. The stock was imported from the nurseries of J. Heins Söhne, near Hamburg, Germany. All of the stock found infected thus far is three years old, that is, the seed was sown in 1906. There can be no doubt that it was infected in the German nurseries, as (1) the disease was not known to occur in America on the pine previous to this date, and in no form whatever except as mentioned below; (2) fruiting pustules have been found on three-year-old trees which were imported this spring; (3) fruiting pustules have also been found on trees which were imported in the spring of 1908 and placed in transplant beds in this country.

It is a well-known fact that a fungus disease introduced into a new climate is usually much more virulent in its attacks than in its native country. This fungus prevents the cultivation of *Pinus Strobus* in certain sections of Europe where the fungus is indigenous. We can hardly doubt that it will be even more destructive should it once obtain a foothold in America. The white pine is the tree upon which depends the entire reforestation movement which has been developed in the northeastern states. *Peridermium Strobi* threatens the profitable use of this species and thus directly concerns all who are connected with the reforestation question in this section. At the present stage in this movement it would be a national calamity to allow this fungus to become established in America.

*Peridermium Strobi* has an alternate stage on various species of *Ribes*, which is known as *Cronartium ribicola* Fisch. de Waldh. The

fungus probably will not transfer from white pine to white pine, but must pass from white pine to *Ribes*, and vice versa. The *Cronartium* stage was found established in New York in 1906 by Stewart,<sup>1</sup> who apparently was entirely successful in eradicating it. The *Peridermium* stage has never been previously found in this country, so far as now known. The best available method of treatment is (1) to immediately burn the diseased white pine trees; (2) to inspect all neighboring currant and gooseberry bushes in August and September, and to burn any affected plant; (3) to inspect the pine trees again in April or May of next spring (1910) and burn all that are found diseased. It may be also necessary to repeat the inspection of the currant bushes in 1910.

On June 28 a meeting was held in New York City of the representatives of the forest commissions of the states of New Hampshire, Vermont, Massachusetts, Connecticut, New York and New Jersey, the Pennsylvania and the Delaware and Hudson Railroads, the New York State Department of Agriculture, the Geneva Agricultural Experiment Station, the Yale Forest School, the Forest Service and the Bureau of Plant Industry of the United States Department of Agriculture. Concerted action along the lines recommended above was pledged by all concerned, and measures for preventing the further importation of diseased trees were taken under consideration.

PERLEY SPAULDING

BUREAU OF PLANT INDUSTRY

#### SCIENTIFIC NOTES AND NEWS

It is scarcely necessary to remind readers of SCIENCE that the Winnipeg meeting of the British Association for the Advancement of Science opens on August 25, and that the council of the association has invited members of the American Association for the Advancement of Science to become members for the meeting. Abstracts of papers intended for presentation should be forwarded to the local secretaries, University of Manitoba.

<sup>1</sup>Stewart, F. C., Tech. Bull. N. Y. (Geneva) Agr. Expt. Station, 2: 60-74, 1906.