LELAND STANFORD JUNIOR UNIVERSITY PUBLICATIONS
UNIVERSITY SERIES

DUDLEY MEMORIAL VOLUME

CONTAINING A PAPER

BY

WILLIAM RUSSEL DUDLEY

AND

APPRECIATIONS AND CONTRIBUTIONS

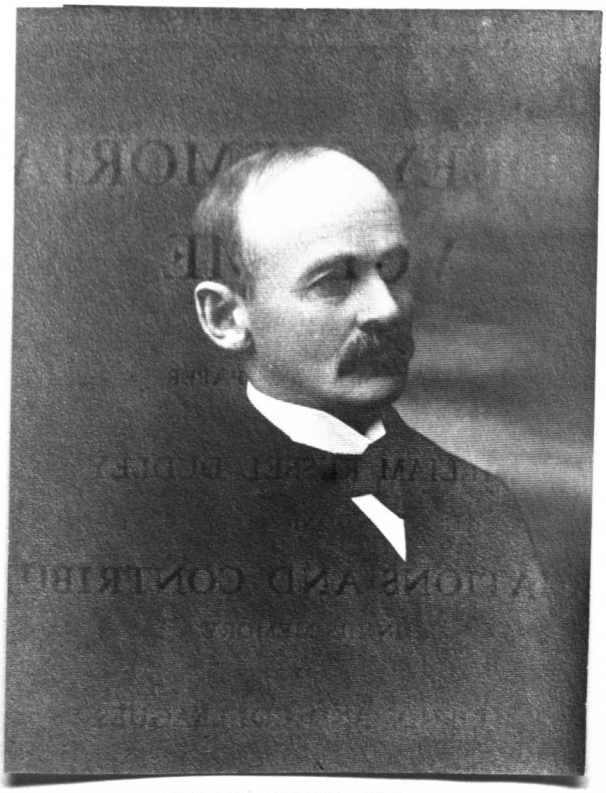
IN HIS MEMORY

BY

FRIENDS AND COLLEAGUES

(WITH PORTRAIT)

STANFORD UNIVERSITY, CALIFORNIA
PUBLISHED BY THE UNIVERSITY
1913



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WILLIAM RUSSEL DUDLEY was born at Guilford, Connecticut, March 1, 1849, and died at Los Altos, California, June 4, 1911. He was educated at Cornell University, graduating with the class of 1874, and taking his master's degree at the same institution in 1876. He was instructor in botany in Cornell University from 1873 to 1876, and assistant professor of botany from 1876 to 1892. On leave of absence from Cornell he was acting professor of biology in the University of Indiana in 1880, and he spent the year 1886-1887 studying at Strasburg and Berlin. He was appointed professor of systematic botany at Stanford University in 1893, a position which he held from that time until December, 1910, when, on account of ill health, he voluntarily retired and became professor emeritus.

University Chapel

September 10, 1911

✠

In Memoriam

William Russel Dudley

Emeritus Professor of Botany

✠

Born March 1, 1849 Died June 4, 1911

WILLIAM RUSSEL DUDLEY

[An address delivered at the services held in the University Chapel of Stanford University, September 10, 1911.]

By JOHN CASPER BRANNER, Vice-President

I DOUBT if there is any time in men's lives when they come to know each other as well as they do in their college days, especially when they happen to have the same studies, to be in the same classes, and to be much thrown together by any circumstances whatever.

Professor Dudley and I belonged to the class of 1874 in Cornell, we had some of the same studies, we belonged to the same fraternity, and as students we had about the same ups and downs. Aside from these mutual interests we were thrown together still more by the fact that Dudley, being a student in the scientific course, had botany in the early part of his studies, while I in the course in Greek and Latin took botany near the end of my college work, and so it came about that in our senior year he was instructor in botany and I was his pupil.

As enthusiastic students and as intimate friends we tramped together every hill, explored every gorge and penetrated every swamp for many miles around Ithaca. Under his guidance I came to have a personal acquaintance with and affection for every flowering plant of the region about Cayuga Lake, and for Dudley always a deeper love and a greater esteem.

The first piece of scientific work I ever did—a study of the fibro-vascular bundles in the palms—was undertaken and carried through under his guidance.

On the slopes of the hills west of Ithaca it was he who pointed out to me for the first time the deep marks cut in the hard rocks by the ice of the glacial epoch. Thus Dudley was not only my first and principal instructor in botany, but he was also, in a way, my first effective instructor in geology.

We college professors are more or less given to the discussion of methods of instruction, and it is no uncommon thing to hear this or that man's methods found fault with. I dare say such criticisms are well enough in their way, but after all is said and done there remains one supreme test of a teacher that is often lost sight of in these discussions, and that is his results. I do not speak with a knowledge of the precise number of his students who stand to-day in the front rank of our botanists, but my general impression is that, judged by this standard—by results with his

students—Professor Dudley was one of the most successful teachers of botany this country has ever produced. And I am confident that that success is to be attributed to a great extent to the human and personal rather than to the technical part of his methods as a teacher.

He was always at the service of his students. No hour of the day or the night was inopportune when a student wanted his advice or direction.

His personal influence during his early manhood was the finest and most wholesome that I have ever found among men, whether old or young. Professor W. R. Lazenby of the University of Ohio, who was a classmate, writes of him: "I may say for myself that I owe Dudley a great deal. I roomed with him my first year at Cornell, and he had a great influence for good over my life. I think, all in all, he was one of the best men I ever knew—pure gold."

Dudley was a warm hearted, genuine lover of nature in all her forms and in all her moods, and this gave him that enthusiasm without which a teacher is not a teacher. No man could have fitted more perfectly into the sentimental side of botany—if botany has any such side. The colors, the beauty, and delicacy of flowers and plants, their lives, their kinships, their histories—all appealed to the artistic side of his nature.

This love for and appreciation of nature, however, was his despair as well as his constant delight. His soul overflowed with affection for it all, but he was so sensitive to the defects of language and of other methods of representation that he rarely undertook to give expression to his love for it.

But I would not have you imagine that he was a botanist and nothing but a botanist, neither was he a scientific man to the exclusion of other interests. Indeed he was deeply and generally interested in everything human and spiritual.

At heart he was a poet. I shall never forget the glow of enthusiasm with which he read to me, when it first appeared, Longfellow's *Morituri Salutamus*. He always had about him the works of the best poets and a few pictures and other works of art of the first quality.

His was

> "The love of learning, the sequestered nooks,
> And all the sweet serenity of books."

To be rather than to appear was the steadfast principle of his life. Modesty, gentleness, unobtrusiveness, decorum, and purity of life were his most prominent characteristics. He never did anything for the sake of display; he never courted popularity. His whole life, within and without, was one long, living protest against vulgarity in all its forms.

He was a man of the finest possible fiber, so fine indeed that the very delicacy of his nature unfitted him for some of the pioneer work he was called upon to do in his lifetime.

When Dr. Jordan was President of the University of Indiana, he tried for some time to induce Dudley to go to that institution as professor of botany. And I recall in this connection that Dr. Jordan said to me on one occasion: "Quite aside from his ability as a teacher of botany we need him here on account of his personal influence."

But Dudley declined the proffered position largely because he felt that he was not altogether fitted for the pioneer work required there at that time.

With the idea that poverty helps rather than hinders a young man, Dudley did not altogether agree; in fact he entirely disagreed with it in so far as it related to himself. He felt keenly the inconveniences of having to earn his living while carrying on his studies.

The necessity of devoting so much time to his teaching and the strictness of the standards he set for himself explain why he was not a writer of books or the publisher of a very long list of scientific papers.

Lest some who did not know him well should imagine that so much self-effacement indicated a man with but little force of character I hasten to say that such was very far from being the case. With all his gentleness and sweetness I have never known a man of more decision of character, stronger will power, or of more determination, firmness, and unswerving purpose.

In the summer of 1882, I think it was, when Dudley was thirty-three years old, the baccalaureate sermon at Cornell was preached by the Rev. Dr. Heber Newton, who was for a while chaplain here at Stanford University.

Dudley and I went to chapel together. We found it so crowded that we could not find seats together, and I sat in the row of seats just behind him. Dr. Newton's address was a eulogy upon the life, character, and influence of Ralph Waldo Emerson. You can imagine the tribute he paid to that distinguished writer and lecturer. I recall that when Dr. Newton had finished his eloquent address I said to myself: "Yes, but right here living in our own midst and within the reach of my hand is a man who has every one of the finest traits of character of Emerson."

In the latter part of his life certain of his traits became more prominent than during his younger manhood. He was always, and of necessity, a purist in every sense in which that word can be used. But as he grew older I imagine that his sensitiveness brought him more pain than pleasure,

and to this I attribute the rather lonely life he led after coming to California.

Unfortunately there are those who knew Professor Dudley only as a name in the university register. I am sure my friend would not thank me to apologize for the modest part he played in this or in any other community, but in closing I am constrained to say a word in behalf of him and of all such men: It behooves us not to lose sight of this blessed truth, that there are fine men and women in this world of ours—and plenty of them, too—who keep out of the limelights, whose names we never see in the headlines of the newspapers, but who lead quiet, sane, and wholesome lives. Such people always suggest to me the foundations of a great structure. These foundations lie deep beneath the surface of the ground; we never see them; we seldom think of them; they are not decorated with flying flags or written across with gaudy colors or blazing electric lights. But they stand fast and firm, and the stability and the real worth of the entire superstructure depends upon them.

One of these foundation-men was William Russel Dudley.

WILLIAM RUSSEL DUDLEY

[An address delivered at the services held in the University Chapel of Stanford University, September 10, 1911.]

By PROFESSOR DOUGLAS HOUGHTON CAMPBELL

WILLIAM RUSSEL DUDLEY was born in Guilford, Connecticut, in 1849 and was one of the earlier students of Cornell University, from which he graduated with the degree of Bachelor of Science in 1874. At that time Cornell University had only been opened for a short time, and I fancy the conditions there were in many respects very much like those of Stanford twenty years ago. The new university at Ithaca had broken away from the traditions of the earlier eastern colleges, and science received far more attention than in most of the other institutions. The opening of the new university with its facilities for scientific work attracted a group of young men who have since attained pre-eminence in their various departments. Among those who are on our own faculty were Dr. Jordan and Professor Branner, with whom Professor Dudley was associated on intimate terms. Of Professor Dudley's life as spent at Cornell, Professor Branner has just given us a most sympathetic account. In Dr. Jordan's recent sketch of Professor Dudley in Science, he tells us that for a time he was himself instructor in botany, and that Professor Dudley during the early part of his stay at Cornell came under his instruction. However, it was not long before Dudley himself was acting as instructor even in his undergraduate days, and later became attached to the staff of the university.

It is hard for us to realize in these days when every college or university of any pretensions whatever has its department of botany well-equipped and well-manned, that during the '70s the number of professorships of botany in the whole United States probably did not exceed half a dozen. Cornell was one of the first of the universities to establish a distinct chair of botany, and at the time that Professor Dudley entered Cornell the chair was held by Professor Albert Prentiss. While a student at Cornell, Dudley attended the summer session of the famous school at Penikese where Agassiz for the first time instituted a seaside summer school, the model of which has since been repeated in so many places. At Penikese Dudley was associated not only with his fellow students of Cornell but also with a number of other men who laid the foundation of the biological studies which have had such a tremendous influence in the development of science since that time.

Professor Dudley very early became interested in the problem of plant distribution. The region about Ithaca is a peculiarly interesting one botanically, offering an unusual variety of conditions with a correspondingly varied and interesting flora. Dudley soon became intimately acquainted with the flora of this whole region and the results of his studies were later published under the name "The Cayuga Flora." This was soon supplemented by a second similar work on "The Lackawanna and Wyoming Flora." While at Cornell, Professor Dudley also published in collaboration with Professor M. B. Thomas a "Manual of Histology." He also published a number of other shorter papers dealing mainly with the flora of the same region.

During the latter part of his stay at Cornell Professor Dudley had charge of the work on the lower plants, especially the fungi, to which he devoted much attention. In connection with this work upon the fungi Professor Dudley made a trip to Europe in 1887, and it was upon this trip that I had the first opportunity of making his acquaintance. I was myself at the time a student at the University of Berlin.

My first meeting with Professor Dudley was at Strasburg, where he had gone to study under the famous botanist, De Bary. Somewhat later Professor Dudley went to Berlin, where I was a student, and I had an opportunity of renewing the acquaintance so pleasantly begun at Strasburg. It is seldom that I have had the good fortune to meet a man who has made upon me a deeper impression. The extraordinarily fine quality of Professor Dudley's personality it is not necessary to describe to those who knew him. In every sense of the word he was a gentleman of the finest type. We little thought then that it was not going to be many years before we should be colleagues in a new university in far-away California, for to us then California seemed very far away indeed.

Just twenty years ago a little band of pioneers, to which I had the great good fortune to belong, started our University on its career. Everything looked most promising and we were all full of enthusiasm and hope for the future. Two years later Mr. Stanford died, and the university entered upon a period of anxiety and privation, which was only tided over by the noble and self-sacrificing devotion of Mrs. Stanford.

Professor Dudley was called to Stanford as professor of systematic botany in 1892, but did not come to California until the fall of 1893, just at the time when the outlook was most discouraging. He naturally had expected to have all the necessary equipment for establishing his department, and of course nobody could have foreseen the unfortunate condition of things which prevailed at the time he took up his duties in the autumn

of 1893. Although it must have been a great disappointment to him, he nevertheless vigorously set to work to make the best of the situation and for several years before the outer quadrangle was built and the present botanical quarters provided, he carried on the work of his department under most discouraging conditions. His laboratories, if such they may have been called, occupied the attic of one of the shop buildings back of the quadrangle, and were very far from satisfactory either for laboratory or herbarium purposes. However, he began collecting assiduously and before long the nucleus of the fine herbarium which he has left to the university was brought together.

The flora of California is a peculiarly rich and interesting one and offers exceptional opportunities to the student of the problems of plant distribution. To Professor Dudley, whose work had been especially along these lines, the opportunities for work in his chosen field must have been very enticing, and doubtless compensated in great measure for some of the drawbacks in other respects which he must have felt keenly when he came to Stanford. From the time of his arrival, almost until his death, he made many trips to all parts of the state, collecting zealously and accumulating an invaluable herbarium which remains to remind future students of our flora of his tireless interest in his work.

Professor Dudley paid especial attention to the flora of the Sierras, and was a recognized authority upon it. California is pre-eminent in its coniferous forests, which are unrivaled in all the world, and Professor Dudley soon became deeply absorbed in a study of the distribution of these magnificent trees. A considerable number of these are peculiar to California and often of very restricted range, like the familiar Monterey cypress. Professor Dudley studied with especial care the habits and distribution of a beautiful fir (*Abies venusta*) which is only known to grow in the Santa Lucia range. He made a number of trips to this remote region for the purpose of studying this rarest of the Californian firs. His acquaintance however with all of the coniferous trees was most intimate, and he soon became a recognized authority on the distribution of the Californian conifers.

Professor Dudley's interest in the study of the distribution of the forest trees naturally led him to a study of the problems of forestry, which for the past twenty years or so have been arousing so much interest in the United States, and which so deeply concern the welfare of the country. As might be expected, his sympathies were entirely with those who would protect what is left of our magnificent western forests from the reckless exploitation of ignorant or unscrupulous men who have so devastated the

forests of the eastern states, and are now threatening the great forests of the Pacific Coast. An intimate friend of Gifford Pinchot, who has been an effective champion of the rights of all the people in our splendid forests, which have been so wantonly devastated, he always stood for the most enlightened views of forest conservation. The state has never had a more devoted advocate of sound and modern methods in forestry than Professor Dudley.

His teaching work in the university, especially in his later years, was to a great extent strongly influenced by his interest in forestry problems, and the students who were intending to devote themselves to forestry as a profession found in his teaching a sound preparation for their future vocation.

Professor Dudley's interest in forestry was evinced in a very practical way through his participation in the movement to reserve as a state park the fine body of redwood timber in the Santa Cruz Mountains known as the Big Basin. Largely through his instrumentality this magnificent body of virgin redwood forest was bought by the State as a permanent public park. Until compelled by illness to give up his position, he served as one of the commissioners of the park, in which to the last he took the keenest interest.

For many years also Professor Dudley was an active and interested member of the Sierra Club, and accompanied the club in its outings in the Sierras on several occasions. Those who were fortunate enough to be members of the party and thus came to know Professor Dudley in his most congenial surroundings, will always remember with the keenest pleasure their associations with him on those excursions.

As a teacher Professor Dudley was devoted to the welfare of his students, who will bear witness to his constant interest in their work and the unfailing assistance always rendered them. Many students both at Cornell and Stanford came under his influence, and the long roll of those who have achieved success in their work after leaving college bears witness to the success of his labors as a teacher. At Cornell, Professor Atkinson, the present head of the department of botany, was one of his students. Professor Trelease, the distinguished director of the Missouri Botanical Gardens, which position he recently resigned, was also a student at Cornell; and Dr. Coville, head of the National Herbarium at Washington, also claims Professor Dudley as his teacher. Many others, successful both as teachers and investigators, look back with pleasure and gratitude to their student days in his laboratory. On our own faculty Professor Abrams and Mr. McMurphy were both associated with him as students and colleagues, and are carrying on the work which he so well began.

Undoubtedly Professor Dudley's most important scientific work was the collection of the extensive herbarium to which he devoted so much time and labor during all the years that he spent in California. It is doubtful whether any botanist had a more intimate knowledge of the flora of California than he, and the great number of specimens collected by him on his many botanical trips are now the property of the university. And the Dudley Herbarium will remain as a monument to his devoted labors as a student of California plants.

A characteristic California genus, Dudleya, has been named in his honor, and will always recall to botanists the name of one of the most devoted students of the flora of our state.

WILLIAM RUSSEL DUDLEY*

By President David Starr Jordan

The fact that the writer has been intimately associated with Professor Dudley since the day he entered the freshman class at Cornell University, in September, 1870, will perhaps excuse the personal element in this little sketch.

The word "instructor" as a technical term, describing a minor assistant to a professor, had just then been invented, and the present writer had just been appointed "instructor in botany" under Professor Albert N. Prentiss.

One day Professor Henry T. Eddy, now of Minnesota, brought to me a tall, well-built, handsome and refined young man, older and more mature than most freshmen, and with more serious and definite purposes. Young Dudley had an intense delight in outdoor things and especially in flowers and birds. He wanted to be a botanist, and had turned from old Yale, to which as a descendant of Chittendens, Griswolds and Dudleys he would naturally have gone, to new Cornell, because Cornell offered special advantages in science. For the rest of my stay at Cornell, Dudley was my roommate, living in a cottage on the hill, built by students and termed "University Grove." In this cottage was established the boarding-club, known later and appropriately as "The Struggle for Existence," and in later and more economical times as the "Strug."

In time he was made botanical collector, and this congenial work he kept up until he became my successor as instructor in botany. In college Dudley was a member of the Delta Upsilon fraternity, and took an active part in holding this society to the high ideals (Δίκαια γποθήκη) on which it was originally based. He was also a charter member in the honorary scientific society of Sigma Xi (Σπουδῶν Ξυνῶνες).

From 1872 to 1876 he was instructor in botany at Cornell, his eminent knowledge of the eastern flora overbalancing the fact that at first he had not yet received a degree. From 1876 to 1892 he was assistant professor of botany at Cornell, with a year's absence in 1880, in which he served as acting professor of biology in the University of Indiana, in the absence of the present writer, who then held that chair.

In 1892, Professor Dudley became professor of systematic botany at Stanford University, which position he held until, in January, 1911, failing

* *Science*, N. S., Vol. XXXIV, 142-145, August 4, 1911.

health caused his retirement on the Carnegie Foundation, as professor emeritus, his work being then taken by one of his students, Associate Professor LeRoy Abrams.

Many of the leading botanists of the country have been students of Professor Dudley. H. E. Copeland, Kellerman, Lazenby, Branner were among his associates at Cornell. Atkinson became his successor at Cornell. Abrams, Cook, Elmer, Olssen-Seffer, Cannon, Wight, E. B. Copeland, E. G. Dudley, Greeley, Herre, McMurphy and many others were under his tutelage at Stanford.

In Stanford University, Dudley was one of the most respected as well as best beloved members of the faculty. No one could come near to him without recognizing the extreme refinement of his nature; a keen intellect, an untiring joy in his chosen work, and the Puritan conscience at its best, with clear perceptions of his own duties to himself and a generous recognition of the rights and the aspirations of others.

Dudley entered with great joy into the study of the California flora. He became especially interested in the study of trees, the evolutionary relations of forms and especially the problems of geographical distribution. The conifers of California were his special delight, and he made many field trips with his students to all parts of the state, notably to the Sierra Nevada and the Sierra Santa Lucia. His extended collections were presented to Stanford University, where with the collections of Dr. Abrams they form the major part of the large "Dudley Herbarium."

A genus of stone-crops, of many species, abounding on the cliffs of California and especially on those which overhang the sea, was named *Dudleya* by Britton and Rose. *Dudleya pulverulenta* is one of the most conspicuous plants in California wherever "sea and mountain meet."

Dudley was instrumental in inducing the State of California to purchase a forest of redwoods (*Sequoia sempervirens*), that this, the second of California's giant trees, might be preserved in a state of nature. Two thousand five hundred acres in the "Big Basin" of Santa Cruz county were thus bought and established as the "Sempervirens Park." For several years Dudley served on the board of control of this park.

Of the Sierra Club of California, Dudley was a leading member and for some years a director.

As an investigator, Professor Dudley was persistent and accurate, doing his work for the love of it. A partial list of his papers is given below. A large work on the conifers of the west was long projected, but still exists only in uncompleted manuscript.

Dudley was master of a quiet and refined but effective English style. He was one of those scientific men, too few I fear, who have real love for literature, and who understand what poetry is and what it is about. In his early days he wrote graceful verse. Three of his poems are in print, "The Kaaterskills as seen from the Taconics," "Sunrise on the Kaaterskill" and "A Legend of the Lehigh Valley." The last is the story of the Moravian settlements of "Friedenhütten, Tents of Peace, and Gnadenhütten, Tents of Grace."

From the first of these, I quote:

'Twas reached at last, with toiling long and weary
Taconic's loftiest hill;
Then, visions of all visions, stood uncovered
The domes of Kaaterskill!

They rose above the lesser hills as sovereigns
Above the common herd;
They gathered then in conclave grand and solemn;
They breathed no spoken word.

But full as anthemed voices of the ocean
A soundless song was borne
Up from those lips that changeless through the ages
Sang on Creation's morn.

. . . . . .

A mighty calm sits on these silent summits,
Time fades, as breath away,
O'er all in solemn oceanic pulsings
Deep flows—Eternity.

From "A Legend of the Lehigh Valley" I quote the last verses:

Full six score years have passed away.
Still on the silent summer morn,
At noon's repose, or evening's gray,
O'er Lehigh's vale this dirge is borne.
The reaper hears, on far-off hills,
And the traveler by the mountain rills,
And the fisher in the evening's chills;

They hear and feel some echo wake
  Of sorrow slumbering long. A tear
Is shed for some sweet lost one's sake,
  A tear that leaves life's stream more clear.
    They bless the song and them who sing;
    They feel the sympathy upspring
    That's born of human suffering.

The air is full of sad-toned bells
  That never cease their brazen toll;
With circling suns their pulsing swells,
  And in one tireless world-wave roll.
    But grateful unto sorrow's ear
    From the Lehigh, far or near,
    Comes this dirge so sweet and clear—
    Come these human voices dear.

Professor Dudley's health was good until about three years ago, when he set out to study the trees of Persia. In Egypt he was attacked by a severe cold or bronchitis which ended in tuberculosis.

He never married.

PROFESSOR DUDLEY'S WORK FOR STANFORD*

By Professor LeRoy Abrams

Professor William Russel Dudley, who became professor emeritus of botany at the opening of the present semester, although born in an old New England town that has been the home of the Dudley family since early colonial times, is essentially a pioneer. Entering Cornell University with its second freshman class, he remained in that young institution after graduation, first as instructor and later as assistant professor of botany, until the foundation of our own university, when at the urgent request of President Jordan, his college mate and intimate friend, he came to Stanford as one of the pioneer professors at the opening of its second year.

Of Professor Dudley's experience at the very beginning of work in his new field, and of the arduous times during the dark days that engulfed the university soon afterward, I have no personal knowledge, for it was some four or five years after his arrival that I came to know him. Upon entering the university I sought out the department of systematic botany with the intention of carrying on some studies in flowering plants. At that time the twelve small buildings which form the inner quadrangle, and three small shop buildings in the rear of them, were the only buildings available for university work. In my search for the department I was directed to the farthest of the shop buildings, the one situated just back of the new geology building, where I was told that I would find Professor Dudley on the second floor. And here I did find him, tucked away in one end of a loft, in a single room, one corner of which had been partitioned off as an office. In a quiet, reserved manner he talked over my work; then he took me into the main room to select a table and material for study. It was a curious room, this "laboratory," perched high amid the rafters. Three huge beams ran lengthwise of it a good hurdling distance apart, but about five feet and a half from the floor. With an apologetic smile, he warned me of these as he calmly ducked under the first. The table was soon selected and my initial study outlined. Day by day, throughout the course, as he went from student to student directing their studies, he patiently dodged those formidable beams.

For ten years this man, one of America's foremost teachers of botany, conducted his classes under such handicaps. Yet with these great obstacles constantly checking the normal growth and development of his cherished plans, he labored on incessantly; his quiet, dignified, courteous manner,

* From the *Stanford Alumnus*, Vol. XII, No. 6, pp. 165-166, February, 1911.

his thoroughness and enthusiasm in his work, his broad interests and scholarly attainments moulding the lives of his students. For none can come under his influence without, at least unconsciously, acquiring higher ideals and more serious purposes.

During the summer vacations the pursuit of his botanical studies took him into the mountains and forested areas of the state, where he was constantly confronted with the great and shameless waste of our forest resources. He thus became one of the pioneers in the movement toward conservation, and rendered valuable service to the state and nation through suggestions and advice to the Forest Service and other authorities. The establishment of the California Redwood Park, a beautiful tract of forested land in our neighboring mountains, set aside by the state primarily for the purpose of preserving a forest of the coast redwood in its primitive conditions, was accomplished largely through his efforts. And as secretary of the first park commission he labored for its betterment and the establishment of a permanent policy in its management.

But Professor Dudley saw that if the conserving of our forests was to be placed on an intelligent and permanent basis it was essential that young men be trained for the work, and that the people of the states where the forests abound be educated to the necessity of scientific forestry; he saw that fully nine-tenths of the nation's forests lay west of the continental divide, yet in all this region not one of the educational institutions was training men for the scientific management of this vast wealth. He therefore directed his energies toward the establishment of courses in forestry at Stanford. For a number of years he planned toward this end, and finally, just as success seemed probable, the fateful April 18th wiped out every promising hope of immediate realization. Soon afterward he contracted a serious illness which left him physically weakened. This hampered his work, but not his enthusiasm, and he is now retiring from the regular routine departmental duties in the hope that he may regain his health sufficiently to complete his research studies on the western flora.

Professor Dudley's students and his many other friends who have known and followed his courageous and uncomplaining struggle against disheartening obstacles hope that he may not only live to complete his own studies, but that he may yet see young men trained at Stanford for the scientific management of the vast forests of the West.

PROFESSOR WILLIAM RUSSEL DUDLEY*

By Professor George James Peirce

William Russel Dudley, professor of systematic botany in Leland Stanford Junior University from 1892 to 1911, died on June 4, 1911, at the age of sixty-two. By ancestry and place of birth a New Englander, a graduate and for twenty years a member of the botanical staff of Cornell University, a student of De Bary's for a time in Strasburg, he brought to California the mature powers of an enthusiastic student and sympathetic lover of nature, the ripe scholarship and the winning personality of the inspiring teacher. At home in the laboratory, he was still more strikingly the gracious host when he was with students and other friends out of doors, in the fields and woods and mountain forests.

He knew the forests of middle California as no one else; his acquaintance was with individual trees, as his collection of tree portraits testifies. And his studies of their geographical distribution, following and amplifying the earlier studies of Asa Gray and others, gave his knowledge a degree of accuracy and detail, as well as breadth, which was very precious. It is to be hoped that his notes and other manuscripts are in such condition that his associates and successor can give them to the world.

Professor Dudley's nature was so sensitive, his perceptions so fine, and his ideals so high, that he could but rarely bring himself to publish what he knew. He wished always to add to and improve what he had learned and written. Thus the botanical world had little opportunity to know his accomplishments and achievements.

Besides the young men and women whose lives he has enriched, and the Forest Service which he long assisted in various ways, he contributed to the great gift to California and the nation which the state and national forests of California constitute. The "Big Basin Park," the property of the state, will preserve to all time a part of the natural redwood forest of the Santa Cruz mountains. Professor Dudley assisted in securing and preserving as a state park this part of the virgin forest of *Sequoia sempervirens*. It was his interest too which stimulated and directed the federal authorities in the selection of others of the mountain forests of California as national forests.

Of courtly manner, cultivated as well as educated, of ripe scholarship and rich in the knowledge of nature, he was a lovable and elevating associate, an inspiring teacher, a devoted man of science, an honor to Stanford University of which he was an honored member.

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PROFESSOR WILLIAM RUSSEL DUDLEY*

By JARED TREMAN NEWMAN

ONE of the purest and noblest souls—such as one is fortunate to come close to even once or twice in a lifetime—passed to the life beyond yesterday afternoon.

Professor Dudley was a prominent scientist, "one of America's foremost teachers of botany, one of the pioneers in the movement toward conservation," largely instrumental in the establishment of the California Redwood Park, and the secretary of the park commission; yet, it is not of these, nor of his other scientific attainments or accomplishments, that we think chiefly at this time.

Of fine New England stock, cultured, with a refinement that was genuine all the way thorough, doing splendid work in his chosen profession and capable of making a great name for himself, his best service to the world was in imparting to other men higher aspirations and nobler ideals.

Far back in the early days at Cornell, there was a little coterie of men gathered in close association. It included Jordan and Branner and Nichols and Gage and Fairchild and Kellerman and many others who have deservedly come to high position. Among them all there was none of finer instincts or more lovable character than Dudley.

For many years after his graduation at Cornell, and while he remained a teacher there, he was the guiding and inspiring genius of successive groups of young men. Some were taking his work. Others were attracted to him by his rare personality. Still others he sought out. What he imparted to them, and to all who came close to him, was something of priceless value. It was the very soul of the man. He withheld nothing. Absolutely uncalculating in his unselfishness, so pure that impurity could not be thought of in his presence, a lover of nature and nature's God, his influence was constantly ennobling. Like many noble souls, he was peculiarly sensitive. He was hurt often when no hurt was intended. He was often melancholy, sometimes almost morbid. It has always seemed so strange that one who gave so much and so constantly should not be always happy. Perhaps he made up for it in the intensity of his joys. While he was often misundertood and while the number of persons who came close to him was not relatively large, yet few men have merited, or have known, in so large a degree, the love of their fellows.

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*From *The Palo Alto Times,* June 5, 1911.

A lover of truth and imbued with the scientific spirit, he might have become more famous had he spent more time in research and in publishing the results; but his principal work is of the kind that lives in the hearts of living men, and goes on, and will continue to go on, in a generation of workers who owe to him the touch that makes their work worth while.

WILLIAM RUSSEL DUDLEY

[Read before the Stanford Alumni Association at Washington, D. C., November 11, 1911.]

By WILLIAM FRANKLIN WIGHT

DURING the early summer one of Stanford's most lovable teachers closed his life's work and found that last long rest which must come to us all. I wish therefore to-night to pay a brief tribute to the memory of Professor William Russel Dudley. His kindly feeling and interest in his students made him loved by them all, and he possessed that indescribable quality in a teacher that without thought and without effort instantly arouses enthusiasm in the laboratory and in the classroom. He was an unusual teacher, and it is a sad thought to realize that years before the allotted time of life his voice will be heard no more in the classroom and his charming manner will be unknown to the students who shall fill the halls of Stanford.

It was my fortune to be with him on the last day. I had visited him a few weeks earlier, and then he was hopeful that there might still be left to him a few years in which to complete the botanical work that he had begun almost immediately on coming to California. Nevertheless, those who saw him knew that it was even then too late—that the end must soon come. It was therefore with a sad heart that I went on the morning of June 4th to pay a last visit to my friend and teacher.

From the balcony where he lay in the cottage at Los Altos one could look across the valley to the Mount Hamilton range bathed in sunlight, and view the glory of a California landscape. The air was crisp and full of life to the strong. It was indeed a beautiful day in which to live, but there with the vision of nature he loved so well before him, now too far away for his eyes to see, in the midst of a few friends, he calmly awaited the end.

It is however of other days that we would keep the memories fresh. We would rather remember him strong and enjoying the activities of a busy life. And I think he took keen pleasure in all his work, for he appeared to go through each year at the university with an enthusiasm equal to that we should expect if the studies and discoveries of the laboratory were as new to him as to the student. But it was on long tramps in the mountains, in the solitude and grandeur of the redwood forest, that one really began to appreciate the fineness of the man, to know how much he saw in mountain and forest, and how much he loved nature in sunshine and in storm. At

fifty years there was the freshness and joy of youth in botanical exploration. It was when on such walks too that one came to know the fullness of his knowledge and how perfect was his memory, as every species was recognized and its distribution or other fact of interest was related.

In many ways his life at Stanford was a disappointment. He felt the burden of the years of financial stress through which the university passed more than was his share, and very often supplied from his own purse the necessary materials for the laboratory. The hopes and ideals he had for the development of botanical science he could not live to see realized. But whatever was lacking in appropriate rooms and equipment was more than compensated for in the ability and spirit of the teacher. He lived in his work and for his students. His time and energy were so very largely occupied in their interest that he published little, and this is the regret of all who realize the high scientific ideal which guided him in his work, and who appreciate the charm of his literary style. His Flora of Ithaca and of the Wyoming Valley will be regarded as classics and as models of their kind for many years to come. For some it is not given to publish much—it is theirs to write in the hearts and minds of men and women, an influence as enduring perhaps as that of printed books.

I never heard him speak ill of any person but once, and then he did it deliberately, reluctantly, and as though he felt it a painful duty. It was his habit to see the good qualities in mankind and he did it naturally and without effort.

I trust that so long as modesty, thoughtfulness, and a kindly spirit are regarded as evidences of a fine character, that so long the memory of Professor William Russel Dudley will live at Stanford University.

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