

twenty-two and a half units a year. From the outlet stream certain rivulets are taking away four units, and of these more than one and seven tenths units are escaping through leaks which can and should be stopped up. Naturally the level of the reservoir is sinking. A series of new feeding streams (reforestation) will bring in additional units, slowly at first, and later more rapidly, and construction of the channels should be commenced at once. Meanwhile, however, the most effective means of slowing down the drain on the reservoir is to stop the leaks. In other words, stopping the leaks in utilization—cutting off the drain due to preventable decay—is one of the most effective single means of forest conservation. On the basis of the figures indicated, the stoppage if completely successful would amount to the same thing as increasing our producing forest area by 30 per cent.

The possible savings shown in the table can not, of course, be realized all at once. Effective changes in storage and handling methods are at best brought about slowly, for in many cases utilization depends on custom rather than scientific fact. Research has developed comparatively easy and extremely effective methods for preserving wood. Large organizations such as railroads and telephone or electric light companies can take advantage of the situation either by building wood-treating plants of their own or by arranging to have their ties or poles treated at commercial plants; but the individual householder has great difficulty—if indeed he succeeds at all—in securing enough treated lumber for his front porch. A certain amount of economic adjustment is necessary. It will surely come with a clearer understanding of the relation between proper use of timber and conservation of the forest.

REGINALD H. COLLEY

THE ROMANTIC AND IDEALISTIC APPEAL OF PHYSICS

THE bare facts, the ordinary sensations and common experiences in the daily life of the average physicist to-day, be he teacher or research worker, can certainly not be made to form an appeal to any man. Financially his lot is not a wealthy one nor socially is it high. This is just as true to-day as it was in the days of the dependent philosopher slaves of Greece or the roaming impecunious scholars of the Medieval and Dark ages. Yet even now in this modern age, where in America at least education is somewhat free from the influence, benevolent or otherwise, of wealth, church or patronage, we still find recruits in physics coming up to take the place of each one who is called away to higher realms of truth by death.

How can it be that the plain facts of life do not dismay the recently initiated, discourage discipleship and eventually cause the extinction of this element of our social system, the class of physics teachers and research physicists?

What can it be that as the world goes on and on its yearly passage of 400 millions of miles onward through space keeps and augments the faithful band of physicists?

Surely it must be some powerful force, soul gripping, that insensibly winds its tentacles around each likely nature-loving heart, never to release till death ends the all-absorbing efforts of that seeker after truth.

Solving the riddles of the universe, in a large way or a small, whatever might be his fortune, develops and comes to be the deep passion of the initiate into this profession. Close to nature and by it closer and closer every day to the Almighty God who made him, what matters it to the physicist if the days be dull or neighboring man uncouth? His soul is more or less aloof from mortal strife. The pangs, the torments, the hurts of common life lack their sting except insofar as they keep him from his teaching, his studies, his research.

The recompense of the physicist is not a worldly one at all. Therein lies reason for the eternal and the intangible nature of the appeal to him.

He realizes his reward with mental satisfaction as he feels his intellectual power over problems of nature. He keenly appreciates his mental growth and longs to tackle deeper and deeper problems of his existence and his world.

Though a sincere disciple of truth, he knows not how to express in words to others the strange influence that henceforth for him controls his destiny. And yet those of his students and his assistants most promising as future workers in this field of natural science feel the appeal through him. They can not help but follow eventually. No artificial call for recruits can have the power to select, hold and direct the same as that which of itself goes out from every true and sincere physics seeker after truth.

Dark discouragement and deep despair is sure to be the lot of every mortal man, particularly as he seeks to enter this realm of physics. Yet like the faith that lights the pilgrim's soul and carries him through the long and lonesome periods of trial and tribulation, just so there is a glow of hope that lasts until a steady purpose grips the soul of a new worker in our field.

To him who seeks to work in our domain we can not show success as judged by worldly standards, we can not say his road will be less hard and less long than ours. We certainly can not promise aught

that he can now appreciate. Indeed, we should state that he must leave worldly power and wealth behind.

We can assure him of our mental companionship and welcome him kindly to our midst as a coworker and coseeker after truth. The inspiration to come closer to the soul of things and understand, we are convinced, is likely to be his as much as ours. Surely this is an opportunity as privileged, as wonderful as any offered by other professions. What other than physics will give that development, real and splendid, of the human mind, or that ability of unfolding and of interpreting to fellow-man the things we have personally gleaned from the all-present nature, the visions our inspiration affords us at times of seeing more wonderful and strange phenomena in this interesting universe around us.

The beginner finds that the road is rough and long, but somehow when needed the financial means arise to carry the persistent investigator through the university over into this new realm of romance and idealism. When he arrives his recompense will be the pleasure of pioneering into the frontier-land of unsolved things, dissipating the mists of darkness, in pushing back the clouds of ignorance and bringing new areas of nature into subjection for the service of mankind.

What a world of romance and idealism awaits the loyal and faithful? This is verified by the interesting biographies of all leading physicists. Wonderful problems of physical science await to enthral him in every advanced line of human endeavor. Their abundance and their interest knows no end.

He who has not been moved by these things can not understand. It needs a willing and experienced mind. The standards of measuring success are not invariable ones and so he can not estimate and pass judgment on the net returns for us in this new world of science. From the world's point of view it may rightly be considered as a foolish pursuit and a sad illusion. The explorer, the ambassador and the missionary, however, all experience more in life than most people realize and so it goes in this. There is an appeal that grips the soul. There develops and persists a love for the work that never dies while we live. The pride of attainment, the joy of accomplishment of work planned, the happiness of imparting knowledge to others and the kindly communion with similarly inclined minds, all these constitute some portion of the physicist's reward.

Moreover, the soul is probably more nearly satisfied in this profession than in any other activity that man may follow. For in choice moments his soul, he is convinced, thereby abides in fellowship with all that is worth while in life, and at those rare

periods of the highest inspiration his ego, his own true self, will walk in communion with his God.

What more can sincere man desire?

PHYSICS DEPARTMENT,

RICHARD HAMER

UNIVERSITY OF PITTSBURGH

SCIENTIFIC EVENTS

SIR WILLIAM OSLER MEMORIAL

THE memorial volume now being published under the auspices of the International Association of Medical Museums comprises a large series of personal and biographical articles reminiscent of the life and activities of the late Sir William Osler during the different periods of his career, written by intimate friends and associates. This was primarily intended as a contribution, from first-hand evidence, to our knowledge of those early cultural influences and biological and pathological researches which militated so largely to his development as a leading teacher and master of clinical medicine; but it has been extended through numerous valuable contributions received, to cover all phases of his many-sided life. The scope and plan of the work are outlined in introductory articles by Sir Clifford Allbutt and Professor William H. Welch, and it is completed by a classified bibliography of Sir William Osler's publications (based on the chronological bibliography by Miss M. W. Blogg), and by a bibliography of "Writings about Osler."

The volume will contain over sixty illustrations, both photogravure engravings and half-tone prints. The edition is being privately issued by subscriptions to the volume paid in advance, and, with the aid of a publication fund which was inaugurated in January, 1921, by generous initial contributions from the National Research Council of Washington, the late Sir Edmund Osler and the late Honorable Mr. Justice Featherstone Osler (brothers of Sir William Osler), Mrs. K. S. Reford, of Montreal, and Mr. J. J. Carty, of New York.

Following is a list of the contributors to the volume to date:

Frontispiece: From a photograph presented by Lady Osler for publication in this volume.

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