

upon the theory of evolution was recognized in England, and in 1862 a translation was published by the Ray Society.³

Hofmeister was born in Leipzig, where he passed through the Realschule, but did not attend the university. He took up a business career as a music dealer. How he accomplished the extraordinary output of scientific work, culminating when he was only twenty-seven in the famous "Vergleichende Untersuchungen" which inaugurated a new era in plant morphology, is a mystery. It would seem that his music business could hardly have been a very flourishing one. It would do no harm if some of our present-day investigators who are wont to complain of lack of time for research could be reminded of the conditions under which Hofmeister's most important work was done.

He was soon recognized as one of the outstanding scientific figures of his time, and in spite of the fact that he had never attended a university, he was later given the doctorate, and in 1863 was appointed to a professorship at Heidelberg. Nine years later he was called to Tübingen as Mohl's successor.

Owing to failing health, he retired from active work some time before his death, which took place at Lindenau near Leipzig, January 12, 1877.

Whatever phase of botany may happen to be the fashion as each new crop of workers comes up, and however often the point of view may change, it is safe to predict that Hofmeister will remain in the front rank of the great masters of botany.

DOUGLAS HOUGHTON CAMPBELL

STANFORD UNIVERSITY

SCIENTIFIC EVENTS

THE BRITISH ASSOCIATION

DETAILS of the local arrangements for the Southampton meeting of the British Association for the Advancement of Science, which meets from August 26 to September 2, under the presidency of Sir Horace Lamb, are given in *Nature*.

The reception room will be the King Edward VI Grammar School, which is conveniently and centrally situated, facing the open space called the Marlands, on one side of which is the public stance for charabancs, while close behind it is the West Station on the main Southern Railway line from Waterloo to Weymouth, at which most of the visitors to the meeting will alight from their trains. For the convenience of the members it has been arranged with the railway

³ "On the Germination, Development and Fructification of the Higher Cryptogamia, and on the Fructification of the Coniferae." Translated by Frederick Currey, M.A., F.R.S.

authorities for a special train to be run from Waterloo on the day before the opening of the meeting (Tuesday, August 25). Within easy distance of the Grammar School are to be found the shops and restaurants of Above Bar Street, and an agreement has been reached with a firm of local caterers to take for the week of the visit the Coliseum, a hall capable of seating 1,600, and run it as a restaurant at which lunches and teas may be had.

Garden parties have been offered by Lord and Lady Swaythling at Townhill Park; Lord and Lady St. Cyres at Walhampton, near Lymington, and Mr. W. Collins at Westend; while the Cunard and White Star Companies have invited as many members as may care to go to see over one of their ships.

Southampton is remarkable for its fine open spaces, which stretch from the lower part of the town almost without break to the Southampton Common, the latter covering an area of more than 360 acres of virgin land. Its immediate environs include many places of great natural beauty. General excursions are being arranged to visit old Southampton, the Docks, New Forest, Stonehenge and other places of interest in the neighborhood. The full list of excursions, including sectional ones and visits to works, will be given later in detail. While tickets for the general excursions will be obtainable at a counter in the reception room, those for all the sectional excursions may be had from the local sectional secretaries at the various rendezvous of the sections during the week of the visit. The committee of the Royal Yacht Club has very kindly extended hospitality of honorary membership to the visiting members of the British Association.

ANTI-VIVISECTION

WE are permitted to publish the following correspondence between Dr. David Starr Jordan and Mr. Luther Burbank:

STANFORD UNIVERSITY P. O.
CALIFORNIA
June 1, 1925.

Mr. Luther Burbank
Santa Rosa
California.

My dear Burbank:

Will you pardon one of your oldest friends to express sincere regret over your endorsement of the work of an "Anti-vivisectionist Society?"

To my mind, and I have good reason to know it, this movement is based on the same kind of ignorance and prejudice that animates the much less mischievous anti-evolutionist organizations. The progress of sanitation, associated with that of medicine, has been along the very firing line of science for the last fifty years, ever since the discovery of bacteria and their relation to infectious

disease. The result of research on diet and causes of disorder has been to lengthen the life of the average civilized man for by fifteen to twenty years. Till these days of experiment, physicians were able to treat symptoms mainly, for the solid basis of science had not been reached.

An example of the method of science is that by which Dr. Walter Reed and his associates have controlled yellow fever. The noble work of my old friend, Professor Ricketts, in making clear the nature of "mountain fever" in Montana, and of typhus in Mexico (in which he fell himself a martyr), will also illustrate.

Intensive study of another type of disorder, sugar poisoning, gave us insulin, a drug which has already saved thousands of lives condemned to death by diabetes.

Most such studies can only be made by tests on certain animals, rabbits, guinea pigs, rats, goats, dogs and sometimes monkeys or horses. Literal "vivisection" (cutting them up alive) is a rare thing, not done without anaesthetics. Certainly it has never been wantonly practiced by any sane man engaged in real research. There are two or three cases on record where outrageous acts have been committed, mostly so far as I know in France. Napoleon gave the cue: when he said that "a great soldier like me does not care a tinker's dam for the lives of a million men." But the greatest of Frenchmen, Pasteur, was guided solely by the spirit of helpfulness.

There may have been some cases of some tyro teacher cutting up a live animal for class illustration. But I have not heard of a case for forty years, and it has nothing to do with medical research as practiced in legitimate colleges or in actual centers of research like the Rockefeller Institute.

"Anti-vivisectionist" publications, so far as I have seen them, show certain traits:

1. Sheer ignorance of discoveries of the last half century, notably as to bacteria and protozoa.
2. Quotations from "eminent physicians" without names or dates.
3. Careless or conscienceless use of quotations from men of science.
4. Alliance with advocates of "freedom in medicine," which would double the horde of impostors who prey on the ignorance of the public in regard to medicine and sanitation.
5. Encouragement of faith-healing cults, sincere enough, but capable of dealing only with the promotion of optimism, a method which in many cases may be of positive use in certain types of disorder, but tragic if adopted for setting a broken leg, in treating an infectious malady and the like.

You would not think it workable truth to ascribe your plant successes to your magical control over the fatty matter ("materia pinquis") of the earth by waving of sensitized wands, rather than to scientific operations of selection, hybridization and segregation. I know of people who have gone to Santa Rosa to "see the wizard wiz." — always went for exactly the opposite purpose, to see how great useful results can be achieved by rigid use of all knowledge secured within the field of plant development.

With high appreciation of all your many services to clear thinking, as well as to horticulture, I am

Very sincerely yours,

(Signed) DAVID STARR JORDAN

SANTA ROSA, CALIFORNIA

June 2, 1925.

Dr. David Starr Jordan
Stanford University
California.

Dear Dr. Jordan:

I thank you most heartily for your very kind and very acceptable letter of June 1st, and you do state the truth in the case without doubt very accurately. I have been told by those who have participated that vivisection has been practiced on animals even in the High Schools by those who did not intend to take a medical course. And also I have had statements from parties at the State University who have told me that very evident cruelty has been practiced upon dumb animals.

I wrote that letter to the Anti-vivisection Society of California hastily and did not express myself as fully as I did to the New York Society which was more explicit in confining my remarks to the High Schools. I have never doubted the enormous value of the experiments that were carried on by real scientists anywhere or under any circumstances. I have seen the experiments of some of these scientists in the preparation of diphtheria vaccine, smallpox vaccine, typhoid fever vaccine and several other vaccines which have proved successful, these by scientists, and have never seen any unnecessary cruelty practiced upon any animals, either horses, guinea pigs, rabbits or other animals.

I hope this will make my standing plain to you and I do not question the facts stated in your letter which are all very true as far as I know. I am sure that we are both working for the best interests of humanity and if I have loaned my name to any parties who are working against science and humanity I wish to have my name taken from such organizations.

Faithfully yours,

(Signed) LUTHER BURBANK

INTERNATIONAL PHYSICAL UNION

DR. CHARLES E. ST. JOHN writes that at the general assembly of the International Physical Union on July 7, the significant action was taken, with no dissenting voice, that no international physical congress should be held until it is possible to make it international in fact.

After the rising of the general assembly of the Physics Union Professor Lorentz discussed the recent experiment of Michelson and Gale in connection with the original results found by Michelson. By use of the Stokes theory of the ether modified by a suggestion by Planck that the ether is compressible and subject to the action of gravity he thought the two