Boston Evening Transcript Saturday, Oct. 21, 1905.

## OSTWALD THE MAN

AS HE APPEARS IN THE HARVARD CLASS ROOM

A Most Genial and Attractive Personality, -His Delightful, Simple Home Life in Germany and the Welcome He Extends to American Students-His Love for Music and His Ability as a Musician and Painter -A Prodigious Worker-An Interview with Him at Harvard

## BY HOLLIS GODFREY

The old lecture room in Boylston Hall at windows looking Harvard. with through the trees towards the library, what place more fitting in America for the introduction of the great German philoso-pher-chemist, Wilhelm Ostwald?

It is a perfect October morning, a little before the hour, and the room is perhaps a quarter full. The audience present is for the most part teachers in the college itself or in the nearby colleges and secondary schools. The bell in the corridor rings, and in comes with a rush the rest of the audience, made up apparently of men from the college and the graduate school, chiefly those who are doing somewhat advanced work in chemistry. There is a moment's pause and an instructor enters, who takes his seat at the left of the long, bare demonstration table. A minute more and there enters briskly a stout bearded man of medium height, dressed in gray, with one end of his spectacles protruding from his upper pocket. There is a flutter of applause and the lecturer bows and begins.

As he speaks the opening words there is a moment to study the man with the big blonde beard, the silver hair and the kindly face. An outdoor man you feel instantly, and then you pass to his eyes, deep blue, genial and wise. The eyes of a dreamer perhaps, but yet of a dreamer with the power to make his dreams come true. German unmistakably, and yet with the air of a man who has gone far beyond his own boundaries in many fields of scholarly activity.

The lecture is in English. Each word is chosen with utmost care. The pronunciation typically foreign, every syllable is given almost equal value and runs on a level, seeming to thrust the emphasis on the ultimate. At times a moment's hesitation for a word, never a moment's hesitation for a thought. If the word does not come readily Ostwald turns to the instructor at his side and throws (that is the only word that suits the action) the German word at him. The English word is returned as quickly and the lecture goes on.

The lecturer is in constant motion, walking from one end of the long table to the other with slight gestures as he makes each point. Sometimes leaning over the table in his anxiety to force home some truth and capping each sentence with a queer little turn of his open hand. Hands nervously expressive, by the way, you cannot wonder that he paints as well as writes and makes apparatus as well as uses it.

The statements are clear and concise, concise to such a degree that taking notes is no easy task. At first one detects a German idiom now and then in the sentence but as he goes on these become fewer and fewer. The ideas are new, striking, original and he more than once startles his audience, many of them trained in the old beliefs, as when he says that a tum-bler with ice and water in it is a mixture, while a solution of tea in a glass is a homogeneous body. Newest of new thoughts.

Finally the end of the hour approaches, he glances at his watch and ends with a definition, bows and leaves as briskly as he entered. A burst of applause this time and the lecture is over.

Surely this is a most unusual man. work lies open for the world to read. What is the man himself, his life at home in Germany? What are his habits of work, his interests, his opinions on the chemis-

try of today?

The greater part of Professor Ostwald's life work has been at Leipzig and is there carried on under excellent conditions. He is director of the Physical Chemical Laboratory or Institute of Physical Chemistry, as it is called there, and works in the splendidly equipped new building which was built for him five years ago. His house is built in as a part of the building so his city home is at the university; but the home of his heart is his country house at Gross Boden, where he has a place of about ten acres, a house with two great rooms for his library and an atelier with a north light where he can paint or study. He is moving his library out there and looks forward to the time when he can go away from the city and live his private life by himself or among his friends with freedom to study, write or paint, as he chooses.

The life at Gross Boden is most delight-Among the belongings are two donkeys, four cats, two dogs, a goat and chickens. Flowers are his constant pleasure, one which is denied in the city because the gardens there are really a part of the grounds of the Institute and are in front of the Institute windows. At Gross Boden Ostwald's love of privacy and love for his work both find their best opportunity.

The family consists of the professor, his wife, two daughters and three sons. wife and two daughters are now with him in Cambridge. His eldest son, already a

well-known scientist, is assisting Professor Loeb at the University of California. His second son is a student in chemistry at Leipzig, and the youngest, still in the gymnasium, is planning to go into industrial

The Sunday evenings at Gross Boden re among the pleasantest memories of his American students and friends. An almost invariable feature was a quartet made up of the professor with his viola, some students as first violin, his daughter as second violin, and his eldest son as cello. In any account of his home life the frau professor is always mentioned, and one is likely to hear of the "Order of the Sil-

ver Coffee Bean," instituted by her and presented in the form of a silver coffee bean on a ribbon to each of the professor's personal students and friends when the doctorate was attained. There are about twenty members of the order altogether. Four or five in this country, of whom Dr. Harry A. Morse of Harvard is one. There are two honorary members, Professor Landolt, head of the department of chemistry at Berlin, who received a gold coffee bean on the fiftieth anniversary of his taking the doctor's degree, and Sir William Ramsay of England.

The city life is a quiet one in university circles. Professor Ostwald neither drinks beer nor smokes, and beer drinking and smoking are essential to much social life in Germany. He is a regular attendant at the Gewandhaus Konzerte, the Symphony Concerts of Leipzig where Gericke was conductor before he came to Boston. work comes first, and the quantity of it is almost beyond belief. Think of ten thousand pages of new books. Nineteen volumes of papers translated and edited. thousand reviews on short articles, twelve hundred book reviews, besides all the daily work of the lecture-room and laboratory. It is stated on good authority that no man in the world ever did the quantity of work in chemistry that he has done. Now think how much more this means when we know that he does not have any fixed time for work, but works when he feels like it, refusing to work with a stenographer for the reason that he would feel that he must work then at definite times. In consequence the tremendous volume of his work and correspondence is carried on by his own pen or typewriter. With such a record as this the wonder must come how there can be time for anything else. And yet what an extraor-dinary amount of time this man has found for other things! First, of course, his painting. Since he has been here he has found time to paint on the Charles and Mystic Pond, and at the shore. He manufactures all his own pastels for pastel work, and has made a new fixture for pastels, besides writing the "Malerbriefe" (Painting Letters, or Short Essays on Painting). He is interested in the new world speech, Esperanto, and just at present is tremendously interested in the evolution of the scientific man on the psychological side, studying this by comparison of the biographies and letters of scientific men. He is constantly devising and making himself handy laboratory apparatus, and shows throughout the truth of the two characteristics giv-

en by Vant Hon, in his article on Ostwald, the possession of a most practical sense and the power of never losing interest or mastery of earlier work while taking up the

A glance at the roll of his students shows many of the best-known physicists and chemists in America. Richards, Morse, Torrey, Lewis and Lamb of Harvard, Noyes, Goodwin, and Whitney of M. I. T., Jones of Johns Hopkins, Kahlenberg of Madison, Trevor of Cornell. What a splendid record here alone

Best of all lights on a man, however, is that which you get from the man himself, and it was with great pleasure that I entered the little office in Boylston Hall for a talk with Professor Ostwald, a talk which strengthened by closer contact, the impression of genial heartiness and essential liumanity which the whole man proclaimed.

On my introduction he shook hands with a firm grasp and said, "Sit down, sit down. Now what do you want of me?" "The answers to three questions," I answered. "First, do you see any difference between German and American chemistry?" Nothing could be more characteristic of the man than the way with acteristic of the man than which he poured forth answers.

which he poured forth answers.

"American

"No difference," he said. "American and German chemistry are now praclically the same. Chemistry is an international science. There is no more difference between one country and another, than between different lab-oratories in the same country. The distinction depends on the personality of the professor. One point might be mentioned, however, that in chemistry in-struction in the lower school in America a great deal of experimental work is done by the pupils. In Germany the pupils are only beginning to experiment, the work up to the present time having been carried on by lecture and recita-tion. They are making an effort to introduce laboratory system in the lower schools in England on a much larger

scale that ever before."
"Next I want to have a word from you chemistry of the in regard to the

future."

He shook his head and laughed, a laugh which seemed to completely fill the little room. "A good deal of a questhe little room. "A good deal of a question. So much I think I can say, that chemistry is increasing rapidly in its hold of everyday life in all directions and is getting into every line of business. In Germany the importance of chemical research is seen everywhere. one marked example being the Boards of Health in the German empire composed of forty or fifty men all holding the doctor's degree, who direct the work." He stopped and I put in the question. "In what special direction do you look for most developments?"

"Catalysis, I think, will be the next great development. Catalytic processes are sure to save time in the industrial world, but they are used very little in America compared with Germany. Chemistry in America has only reached the big industries, the finer products are still German. There is so much energy here in America that you still use a free hand." He stopped,

then said: "One thing I wish to emphasize as much as possible, that is, that industrial development in this counthat industrial development in this country depends exactly and only on the development of pure science. The German example should show this. Our unique position in organic industries depends wholly on the preceding scientific research. The development of pure science and research means a higher plane of statustry and a better ware for the of industry and a better wage for the individual."

He stopped again and looked at me inquringly. "One last thing, professor," I said. "A few words about your work

here at Harvard."

"First of all," he said, "I have never "First of all," he said, "I have never lived in such an atmosphere of benevolence in my life as I have found here. Help has come from every side. I feel already that I am in touch with my pupils, that the right feeling between teacher and pupil has already begun. Second, I wish to say that by these lectures I want to introduce the non-hypothetical method into elementary instructions. In this method I mean to use the same ideas or concepts which cannot be no ideas or concepts which cannot be shown, measured or handled." "But how about the atom?" I said. He laughed in reply, "Oh, we can throw the atom out of the laboratory and give it to the philosopher. This concept I have only interesting the property of philosopher. This concept I have only mentioned before in treatises on practical applications of chemistry, although it must be the concept received by the experienced teacher from my recent primer of chemistry, translated into English by a daughter of Sir William Ramsay. The thought underlying this throughout is the putting away of the theoretical and the bringing forward of the non-hypothetical.

"Is that all?" Another cordial grasp of the hand, a ringing "good-day, Herr Godfrey," and I went out of the little room feeling gratified.

Professor Ostwald is immensely interested in his work over here, and is entirely rearranging his lectures in philosophy for his American audience. His lectures on catalysis are wholly new, while he has never presented the funda-mental principles of chemistry as he is now doing in his course on "Foundations of Chemistry." In consequence his courses here mean a great deal of new

So stands the man. What better ending for this brief sketch could there be than his own words in what seems to me one of the best of his recent philo-sophic maxims: "It is more and more my conviction that it is best for each man to become blessed after his own fash-ion."

HARVARD COLLEGE LIBRARY CLIPPING SHEET

## PROF. OSTWALD IS DISAVOWEI

Leipzig Objects to Utterance of Former Harvard Exchange Professor.

PARIS, Dec. 23-Prof. Wilhelm Ostwald, former exchange professor at Harvard University, has been disavowed by the University of Leipzig because of an interview in which he stated that Germany's policy had a special design of including Sweden in & confederation of states under German hegemony.

The circular, which has been sent to foreign universities by the University of Leipzig, blames Prof. Ostwald for having caused great harm to his country.

When Prof. Ostwald came to America in 1905 as German Exchange professor at Harvard, he was halled as one of the world's leading authorities in physical chemistry. His contributions to that scientific study have been frequent and important and he has done more than any other one man to systematize the branch of electro-chemistry. His first visit to this country was in 1904, when he came as a delegate to the International Congress of Arts and Sciences in St. Louis. Prof. Ostwald was born in Riga, Russia, on Sept. 2, 1853. He studied chemistry and physics at Dorbat and in 1882 was a professor at the polytechnic school in Riga. Since 1887 he has lectured on physical chemistry at the University of Leipzig. Among a long list of his publications perhaps the best known are his Textbook of General Chemistry and his work on Electro-Chemistry.

Of late years Prof. Ostwald has left off experimenting to some extent and has been devoting a part of his time to the broader field of the philosophy of science. He has been regarded as a fixture at the University of Leipzig, where it has been generally considered that a great career as a scientist awaited him. When Prof. Ostwald came to America

Bos. Her. 24 Dec. 1914

HARVARD COLLEGE LIBRARY CLIPPING SHEET

## PROF. OSTWALD SEES A NEW WORLD MAP

Predicts That Canada Will Join Us and Russia Will Break Up.

VIEW GERMAN WAR

Believes Principle of Absolute Sovereignty of Individual Nations Must Be Given Up.

BOSTON, Sept. 20.—Prof. Wilhelm Ostwald of Leipsic, the eminent scien-tist, who was one of the first exchange professors who came from Germany to Harvard University, in a letter, a copy of which has been received here, has written as follows concerning the war to Edwin D. Mead, Director of the World Peace Foundation, in London. Mr. Mead expected to meet Prof. Ostwald at Leipsic during his recent visit to Germany, but was prevented, and Prof. Ostwald sent him this statement of his views, expressing his desire for its publication in America. Prof. Ostwald says:

its publication in America. Prof. Ostwald says:

1. The war is the result of a deliberate onslaught upon Germany and Austria by the powers of the Triple Entente, Russia, France, and England. Its object is on the part of Russia an extension of Russian supremacy over the Balkans, on the side of France revenge, and on the side of England annihilation of the German navy and German commerce. In England especially it has been for several centuries a constant policy to destroy upon favoring occasion every navy of every other country which threatened to become equal to the English Navy.

2. Germany has proved its love of peace for forty-four years under the most trying circumstances. While all other States have expanded themselves by conquest, Russia in Manchuria, England in the Transvaal, France in Morocco, Italy in Tripoli, Austria in Bosnia, Japan in Korea, Germany alone has contented itself with the borders fixed in 1871. It is purely a war of defense which is now forced upon us.

3. In the face of these attacks Germany has until now (the end of August) proved its military superiority, which rests upon the fact that the entire German military force is scientifically organized and honestly administered.

4. The violation of Belgian neutrality was an act of military necessity, since it is now proved that Belgian neutrality was to be violated by France and England. A proof of this is the accumulation of English munitions in Maubeuge, aside from many other facts.

5. According to the course of the war up to the present time, European peace seems to me nearer than everbefore. We pacifists must only understand that unhappily the time was not yet sufficiently developed to establish peace by the peaceful way. If Germany, as everything now seems to make probable, is victorlous in the struggle not only with Russia and France, but attains the further end of destroying the source from which for two or three centuries all European strifes have been nourished and

pean strifes have been nourished and intensified, namely, the English policy of world dominion, then will Germany, fortified on one side by its military superiority, on the other side by the eminently peaceful sentiment of the greatest part of its people, and especially of the German Emperor, dictate peace to the rest of Europe, I hope especially that the future treaty of peace will in the first place provide effectually that a European war such as the present can never again break out.

peace will in the first place provide effectually that a European war such as the present can never again break out.

6. I hope, moreover, that the Russian people, after the conquest of their armies, will free themselves from Czarism through an internal movement by which the present political Russia will be resolved into its natural units, namely, Great Russia, the Caucasus, Little Russia, Poland, Siberia, and Finland, to which probably the Baltic provinces would join themselves. These, I trust, would unite themselves with Finland and Sweden, and perhaps with Norway and Denmark, into a Baltic federation, which in close connection with Germany would insure European peace, and especially form a bulwark against any disposition to war which might remain in Great Britain.

7. For the other side of the earth I predict a similar development under the leadership of the United States. I assume that the English dominion will suffer a downfall similar to that which I have predicted for Russia, and that under these circumstances Canada would join the United States, the expanded "epublic assuming a certain leadership with reference to the South American republics.

S. The principle of the absolute sovereignty of the individual nations, which in the present European tumult has proved itself so inadequate and baneful, must be given up and replaced by a system conforming to the world's actual conditions and especially to those political and economic relations which determine industrial and cultural progress and the common welfare.

Triedrick Wilhelm Ostwald Add

For assoc. Nat. Acad. Sci.; For.

How. Memb. am. acad.; Cor. Memb.

Imp. acad. Sci. (St. Petersburg); memb.

Kin. Sked. Wiss. (Berlin)

Red Friedrich for Friedrick.

Red 1878 for 1875 John Market.

n.g. off. Ostwald Friedrick Wilhe given 50.D. (Han.) big Combr. 1904. Viniv- Calendar