



T. H. Wickenden.

## T. H. Wickenden's Farewell Remarks

On the occasion of his retirement after 34 years nine months service with the Company, Thomas H. Wickenden was honored at a luncheon held at the *University Club* on January 29th. As a memento of the occasion, President H. S. Wingate presented Mr. Wickenden with a desk-style ships clock on behalf of all those attending.

Following the presentation, Mr. Wickenden reviewed his association with Inco. He said: "All good things must come to an end, and in closing my career with Inco I feel that the time spent with this wonderful Company has been a good thing. I am proud to have been a member of this organization and hope that I have contributed to its great stature. Inco is a great organization—not because of its size, but because of the quality of the personnel, the wisdom of the policy makers, and the judgment and spirit of the staff to carry on. It has been an interesting experience to see the Company grow and expand during the past 34 years.

"Prior to coming with Inco I spent several years in the steel industry and ten years in the automotive industry—as metallurgist, directing laboratory work, as design engineer and in a management position. I had several interviews with Mr. A. J. Wadhams and Dr. Merica before I decided to make the change. Their ideas of developing the use of nickel in industry appealed to me, and A. J. made me promise to stay with Inco and not return to the automotive industry—a promise I have not regretted fulfilling.

"At that time we had plenty of nickel and few markets. The auto industry was growing rapidly and their metallurgists and engineers had many material and design problems. They needed help, and nickel alloys proved to be an answer to many of their problems. The same situation existed in most all industry and rapid strides were made in developing industrial uses of nickel which resulted in the sales of nickel reaching an all time high for 1929. (In 1922 the Annual Report showed a loss. In 1923 the net profit was \$48,170.22 and in 1929 it had grown to \$12,399,317.42. In 1955 the Annual Report showed net earnings of over \$91 million.)

"While never employed at the Bayonne Laboratory, I worked closely with the laboratory in the early days in advising on tests designed to solve some of the problems brought in from industry. Also, one of the first ventures in research at Bayonne was the study of the effect of nickel on cast iron. The results of a program laid out by Dr. Merica and executed largely by Jim Vanick were intensely studied by myself for pos-

*T. H. Wickenden served as Vice-President of Inco, Inc., since December, 1947; Manager of the Company's Development & Research Division since August, 1943, and consultant on special projects since June, 1954.*

*Mr. Wickenden joined the Company in August, 1922 when he was placed in charge of developments in the automobile field in the D & R Division in New York. In 1931, he was appointed Assistant Manager of the Division.*

*Numerous inventions connected with the use of nickel in cast iron are credited to him and his papers and engineering data sheets on the use of nickel in steel and cast iron have been widely published in trade journals.*

sible commercial applications, for the need of better properties in cast iron was very great. This development has prospered and is still doing so. And in a free market for nickel it can be expanded still further.

"In the laboratory we sought new basic information on the effect of nickel on many materials and studied these in relation to possible industrial applications. If they showed promise of solving an industrial problem or of making a better material, a program was laid out for further development. First, in the laboratory to prove the soundness of our deductions, then on a pilot scale with some industrial concerns. When thoroughly proven under various conditions a campaign was planned in industry on a broader scale. It has always amazed me the amount of hard work and the length of time involved for a new development to mature, but its accomplishment results in great satisfaction for all concerned.

"One learns a few fundamentals in this research experimenting and planning, for you are in reality matching your wits with the laws of nature. There are many of them and only a few have been well defined. We know many exist because of the occasional bits and pieces which we run across but have not been able to define or weave them into a pattern. These laws involve all phases of nature: chemistry, metallurgy, physics, electricity and nuclear developments and last, but not least, human nature and the thoughts, ambitions and personal characteristics of the people with whom we work. Along this line, Dr. Ira Remson, the great chemist who propounded many chemical laws, also knew human nature and I have often recalled one law he propounded on arguments. When he found some students in a hot and loud vocal argument he listened for a few moments and then said, 'Gentlemen, there is a law about arguments—the heat involved in an argument is inversely

proportional to the knowledge of the subject displayed by the discussers.'

"In this work you develop a great respect for the laws of nature and you should always try to work with these laws rather than against them. The difficult part is to untangle the multiplicity of nature's laws which govern almost any simple problem. Much of our laboratory experimentation is to prove or disprove a theory regarding its function in a particular problem. If the experiment is a failure, you then have a challenge to detect the reason. In each experiment nature is trying to tell us a story and it may take keen observation, thought and study to decode the message. Re-examine and revise your theory in the light of the message and try to make these laws work for you. Working against them can only result in disappointment and failure. Keep your mind flexible; do not push pre-conceived notions too far, but look at the facts as they develop and form a new theory to comply with them.

"There are a few highlights which I look back upon with considerable pride. The first is recommending and establishing our system of technical field sections—starting with the first one in Detroit in 1929, a total of eleven were established by 1946.

"While Manager of the Division, and later as Vice President in charge of the Division, I tried to establish closer cooperation between the efforts of D & R and the I.N.A. Sales Department. The first of the technical meetings arranged between a large manufacturing company and Inco was with the General Electric Company at Schenectady. This meeting has formed the basis of many others which have proven very successful. Detailed arrangements for the meeting were made by the distributors and the Sales Department. The technical talks and discussions were handled by members of the Development and Research Division. We encountered some planted questions, which were handled entirely on their technical merits and to the satisfaction of the General Electric engineers, who were expecting a high powered sales talk.

"Frank LaQue, as you all know, has been one of the leading spirits of the Inco staff in developing information on corrosion on a broad basis, going beyond the interest of our own products. And when the Corrosion Engineering Section was asked to answer all inquiries on their technical merits and without bias, we were willing to take our chances on there being ample opportunities for the use of nickel containing products.

"The establishing of our Stainless Steel Section was of special interest, and I have taken considerable pride in the monumental work in compiling and publishing the book entitled, 'Forming of Austenitic Stainless Steels.' This has been a great help in establishing relations with the producers.

(Continued on page 6)