

Malleable cast iron is made by annealing at a red heat, a casting of white iron containing little or no graphite. Owing to the effect of the anneal, the carbon separates out in the form distinctive of malleable castings.

#### MICRO-STRUCTURE OF A STEEL RAIL.

The lecturer then showed the structures at various points in the cross-section of a steel rail. The grain structure (pearlite and ferrite) was small near the skin, but increased in size as the interior was approached. The interior metal of a worn rail is less durable than that at the original surface.

#### CHARACTERISTICS OF SPECIAL STEELS.

Finally, some specimens of almost pure iron and high carbon steels made in the electric furnace were shown on the screen. Also cross-sections of Novo Steel (high speed tool steel) before and after hardening.

Chairman,—

I am sure all those present have listened with a great deal of interest to the lecture given by Dr. Galbraith, and I am satisfied that if your Executive are as fortunate in procuring a gentleman of this caliber to give us lectures on papers at our future meetings there will be no doubt whatever as to the success of the Club. I am sure we are all greatly indebted to Dr. Galbraith for his courtesy and taking up so much of his valuable time in coming here this evening to deliver us this lecture and we trust that in the near future we will again have the pleasure of hearing from him.

The Executive I understand have arranged for a suitable paper for our next meeting, of which you will receive due notice from the Secretary, and I feel quite satisfied from the interest displayed this evening that we will not only have those present again with us at our next meeting, but we trust that you will bring all your friends and members of the Club with you.

As the hour is growing late I do not feel that we would be justified in opening a discussion as to the lecture given us by Dr. Galbraith. However, he has already devoted so much of his valuable time to his paper that we feel this would be an imposition.

Dr. Galbraith,—

I am sure it has been much pleasure to me to be with you to-night and give you this paper; part of my time at one time being spent in connection with railway work, and if at any time in the future I can be of any assistance to the Club I shall only be too glad to do so and the Club has my best wishes for its future success.