the front rank of American wheel-makers, and in some respects it precedes all others. Space will not admit of a particular description of the work, but the publications of the company set it forth fully for the benefit of those interested. The first important step was to plan methods by which the quality of every individual wheel could be asmethods by which the quality of every individual wheel could be as-certained before delivery for service, so that safety and wearing cap-acity of the best order might be assured. It is sufficient to state in this respect that the records of tests made during the past ten years cover, in an individual manner, every single wheel turned out, and that the company can point to a series of distinguishing marks on every wheel made in that time, and produce records of seven distinct tests which cover the manifecture of each wheel and demonstrate its tests which cover the manufacture of each wheel and demonstrate its ftness for service before it is shipped from the works. The magnitude sf a system like this can be appreciated, from the fact that to carry it out involved the making and recording of nearly three mil-lion tests during the period named The result speaks for itself. Not one wheel has ever broken in service, and the wearing capacity is from two to four times greater than that of any type heretofore used. The company did not rest after perfecting these features of their The company did not rest after perfecting these features of their wheels, but next took up a more important and difficult question. Chilled iron is from six to eight times harder than steel, and it had been practically impossible to treat it mechanically in any manner as steel wheels are finished—that is, to turn chilled wheels true, and to perfect their general mechanical conditions. Machinery for treating chilled iron had been constructed, but the processes were so difficult and slow that to attempt to finish an ordinary output would have in-volved a larger and more expensive plant than that required to pro-duce the wheels in the first place; and yet, if the higher order of man-ufacture in chilled wheels were to be established, it was absolutely necessary to remove the mechanical imperfections found in castings as ordinarily delivered from the foundry. It may not be generally known, but it is nevertheless a fact, that with all other manufacturers chilled wheels are delivered for service as a simple foundry product, chilled wheels are delivered for service as a simple toundry product, and the only mechanical preparation consists in boring the axle seat and pressing in the axle. In endeavoring to deal with chilled iron mechanically, the St. Thomas Car Wheel Company were, therefore, compelled to attempt an order of operations that have never before been conducted successfully. The outlay involved vas very great, but not more than the benefits which accrued. Chilled wheels, instead of being put interview in an untrue, unbalanced and product eard of being put into service in an untrue, unbalanced and crude condi-tion, are now brought to a perfect stage of m_2 chanical finish, and when worn to some degree, instead of being consigned to the scrap iron pile, can be re-turned for further service. It is not in any measure extravagant to say that this adds over 100 per cent. to the mileage that may be obtained from chilled wheels of the best manufacture.

Evidence that the work of the St. Thomas Car Wheel Co. is duly appreciated, is afforded by the fact that their wheels are in use under appreciated, is amorded by the fact that their wheels are in use under the heaviest locomotives on limited trains, and also that they are used in as large diameters as forty and forty-two inches under passenger equipment on a number of Can-adian railways, replacing the steel-tired wheels previously employed, and it is now admitted that they give better service than that given by even the most famous steel wheels. It is difficult for the railroad men, who believe in moving slowly to realize what all this means, but the certainty of their ultimate favorable opinion may be deduced from the fact that the relative expense of chilled wheels made under the system referred to compared with the expense of steel wheels, stands as one to seven or eight, on the most conserva-tive estimate, and that no type of steel wheel has ever given the record made by the St. Thomas wheel, i.e., not one case of breakage in 300,000 to 400,000 wheels made in the past ten years and used in every kind of service passenger, locomotive, etc. That the St. Thomas Car Wheel Company has been able to create and sustain this magnificent record of absolute safety, and to further add to their wheels the feature of mechanical perfection, is a silent but far-reaching argument in favor of the continued prosperity of the company-The work has been accomplished under many difficulties and in the The work has been accomplished under many dimculties and in the face of considerable unbelief as to the ultimate possibilities, but it now stands firmly planted as a fact, demonstrated on a scale suffi-cient to make it most convincing. The product of the company has found its way into every quarter of Canada, and is now entering other countries, with every prospect of a great future business abroad. Active canvass is being made throughout Europe and the colonies, and the company has arranged for representations in nearly all of the and the company has arranged for representations in nearly all of the leading centres. The iron used by the company is largely obtained leading centres. The iron used by the company is largely obtained from the Canada Iron Furnace Company, operating furnaces at Rad-nor Forges, Quebec. The peculiar qualities of this iron give to chilled cast iron the conditions of strength and resistance to wear to an extreme degree; and the wheels made by the St. Thomas Car Wheel Co. in the past four years out of the iron named have given most extraordinary mileage results. The iron manufactured by the Canada Iron Furnac; Co. is made exclusively from bog ores of the Laurentian mountain district, and is the only iron in the world made exclusively from bog ores. The earlier manufacture of Swedish iron was carried on with the use of bog ores to a considerable extent, and it was really at the time of their use that the reputation of Swedish it was really at the time of their use that the reputation of Swedish iron was established. In consequence of the giving out of the bog ore deposits, the use of bog iron has been practically abandoned in Sweden for many years. The operations of the Canada Iron Fur-nace Co., therefore, promise to develop in Canada the manufacture of

