

sure the rejection of any that are either too hard or too soft. This may be accomplished by comparing the tapes and chill tests and rejecting all soft and hard wheels until it can be determined within reasonable lim-

membered, that out of the ordinary lot of wheels, 60% will run through their life and be removed without any defect that reduces the life of the wheel so that it looks very much as though the question of getting the

tensively used on the C. P. R., and the trouble that occurred was caused by its improper use and not on account of its quality. Since that time its use was abandoned for about two years and it has subsequently

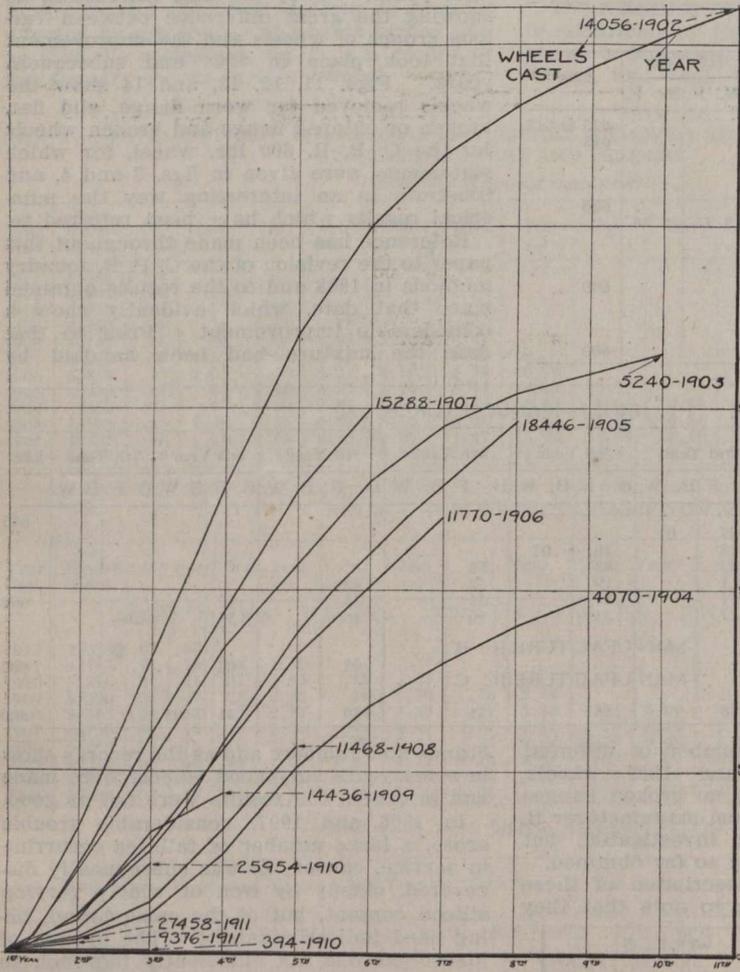


Fig. 9.—Failures Caused by Manufacturers' Defects on Wheels Cast in Successive Years for 80,000 lbs. Capacity Cars for C.P.R.

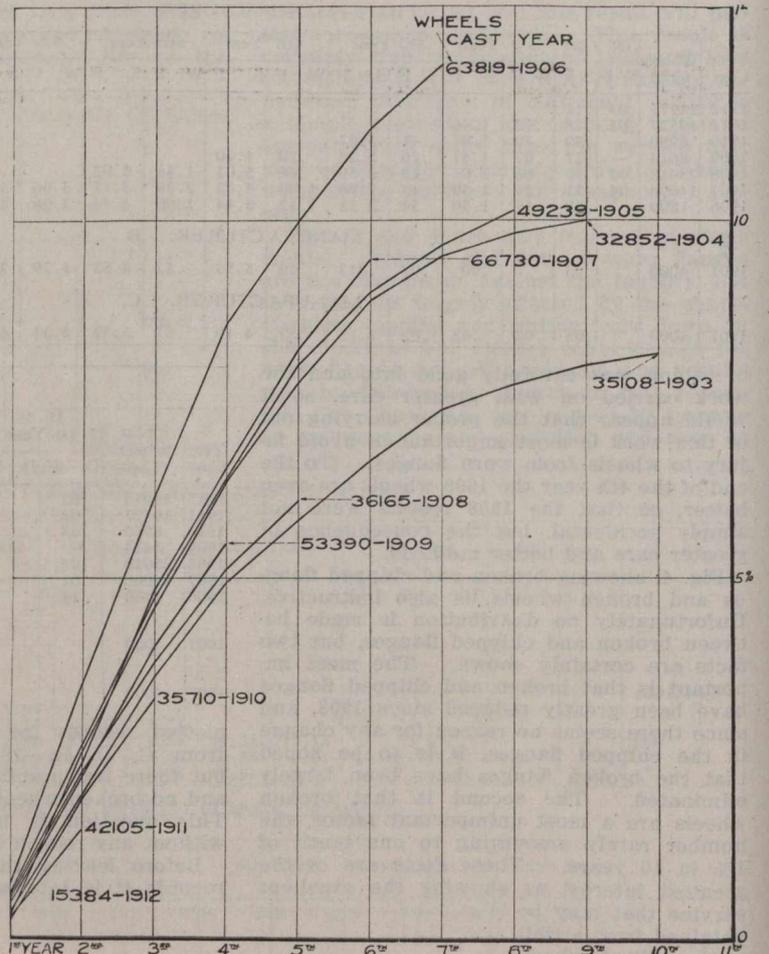


Fig. 12.—C.P.R. Wheels Removed on Account of Slid Flats.

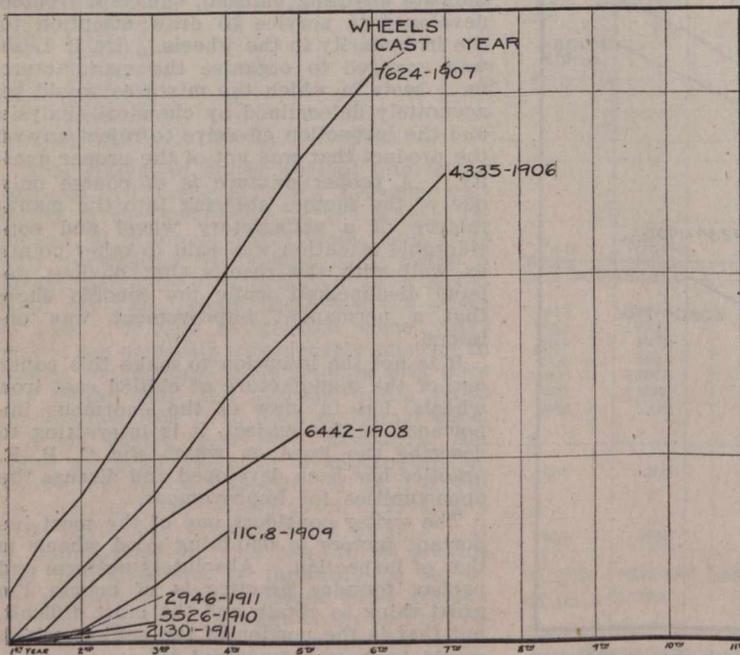


Fig. 10.—Failures Caused by Manufacturers' Defects on Wheels Cast in Successive Years for 100,000 lbs. Capacity Cars for C.P.R.

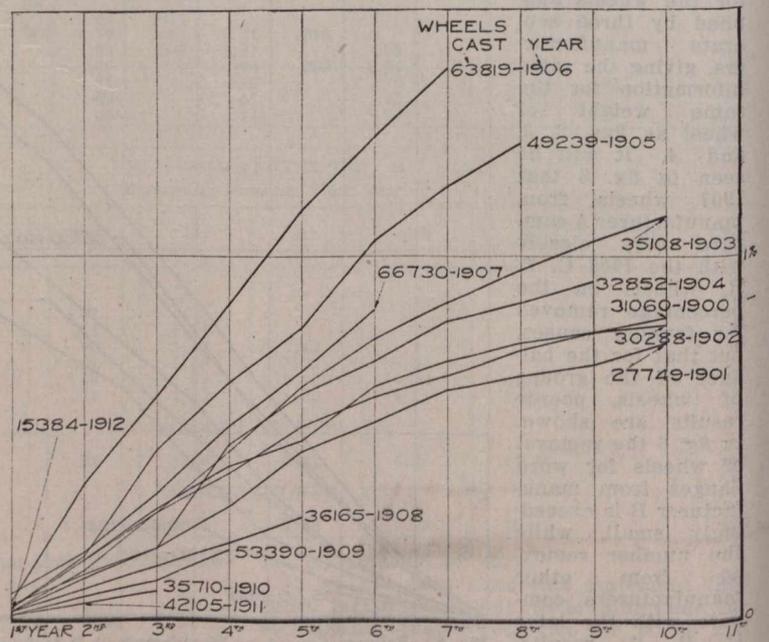


Fig. 13.—C.P.R. Wheels Removed on Account of Broken Flange.

its that the wheels accepted are good. Inspection should of course, detect all ordinary defects, but it can be carried on to properly protect the heat, and this is most important. One thing should be re-

other 40% out of the way by better practice or improved inspection were the important ones. The question of mixtures is a very vexed one. Prior to 1908 charcoal iron was ex-

been employed to the extent of 10 or 15% of the mixture. In spite of the great reputation of charcoal iron, it is a question to what extent it can be better than coke iron after being melted up in a cupola heated by