

manufactured as insuring more prompt filling of orders and a smaller stock on hand at their own shops. Car, tender and engine truck wheels are, as a rule, turned up on the same machine, and most shops are provided with special tools for dressing the flanges and treads. To require different tool equipment for different wheels would be objectionable and confusing. In fact, when wheels are being machined, it is not generally known whether application will be made to cars or tenders. Your committee, therefore, recommends for engine and tender truck wheels in all classes of service the contour of tread and flange as shown in fig. 1. This contour is the same as will be recommended to the M.C.B. Association in June, 1912, and differs from the present M.C.B. recommended contour in that additional metal has been added to the back of the flange, making the contour of the flange identical with the flange for cast iron wheels. This thickening of the flange was recommended with the view of increasing the life of the wheel, as many steel wheels are now withdrawn from service due to thin flange.

Replies received from manufacturers of steel wheels indicate that about 80% of the engine truck and 95% of the tender truck wheels manufactured during the past year are of the 1909 M.C.B. recommended contour.

In driving wheel service the conditions are somewhat different, as the brake shoes generally used are recessed for the flange, and also opposite that part of the tread coming in contact with the rail. This tends to keep down the height of the flanges and retards channelling of tread. On account of the general opposition to any reduction in flange height of driving wheels in road service and the fact that the present A. R. M. M. A. standard contour of tread is so nearly like the M. C. B. 1909 contour, your committee does not feel justified in recommending, at present, any change from the present contour for driving and trailing wheels of locomotive in road service. As a matter of information, we wish to add that while practically all railways are using a contour of driving wheel tire approximating the A. R. M. M. A. standard, almost all are deviating in some particular.

In the case of switching locomotives it is felt that a flange 1 in. high is perfectly safe and will be more satisfactory than the present standard, as a greater mileage can be made with the shorter flange before reaching an objectionable height. As has been previously mentioned, the A. R. M. M. A. and M. C. B. contours of tread being so nearly alike, it was felt unwise to establish a new contour having the M. C. B. flange and A. R. M. M. A. tread, and we, therefore, recommend the contour shown in fig. 1 for driving wheel tires in shifting service.

The six widths of flanged tires shown on sheet 1 of the standards are, in your committee's opinion, entirely unnecessary, and we would recommend that one width be shown, namely, $5\frac{1}{2}$ ins. In the case of plain tires, three sizes as recommended last year are sufficient; the two sizes $6\frac{1}{4}$ and $6\frac{3}{4}$ ins. to be eliminated.

As concerns condemning thickness of flange below 15-16 in., after carefully considering the replies received and all information available, we cannot see our way clear to recommend flanges of wheels under locomotives and tenders being allowed to remain in service when worn below this limit.

Our recommendations, therefore, are as follows:—

Engine truck and tender truck wheels, contour as shown in fig. 1.

Flanged driving wheels and trailing wheels of locomotives in road service, present A. R. M. M. A. standard of $5\frac{1}{2}$ ins. wide.

Flanged driving wheels in shifting service to be as shown in fig. 1.

Plain tires, present A. R. M. M. A. standard, three widths, 6, $6\frac{1}{2}$ and 7 ins.

Condemning limit of thickness of flange, 15-16 in.

Master Car Builders Association's Meetings.

This association met at Atlantic City, June 12 to 14, the President, A. Stewart, G. S. M. P. & E., Southern Ry., Washington, D. C., presiding. In opening the convention he said:—"We are meeting again this year, with the approval of our respective companies, to further perfect our rules, and, if possible, to revise them in a manner that will still further reduce our cost of maintenance and clarify matters that have not been understood alike by all of our members; also to devise the best possible manner of complying with new legislation affecting the construction, maintenance and handling of equipment in interchange."

He paid tribute to the earnest work done by the committees on various subjects assigned to them, the principal reports on which are given in earlier pages of this issue. He also referred to the interchange of equipment in the U. S., as regulated by the recent safety appliance acts, and said:—"We are required to change the safety appliances to standard on both system and foreign cars going through the shops for general repairs, and we should have a rule for charging the car owner with a portion of this expense. It is my understanding that we are now subject to a penalty for handling cars marked "U. S. Safety Appliances," if the cars so marked are not in accordance with the law. To inspect all cars received with safety appliance defects, including location, is obviously out of the question, and we should have a rule that will relieve the receiving line for penalty defects and material, location or manner of application, when cars have been stencilled as complying with the law."

"Cars that have been fitted with the special 12 in. coupler to give the required end clearance should be so stencilled for protection to the owners and for the information of the inspectors."

"We should consider a rule for a fair basis of interchange where it affects the removal or turning of steel wheels under freight equipment, and a proper charge for wooden cars which have been reinforced by continuous metal draft sills."

"The question of changing the present M. C. B. specifications for air brake hose has been brought to my attention, and a committee should be appointed to take up this matter and report what changes are necessary."

REVISION OF CONSTITUTION.

The committee on revision of constitution pointed out that prior to the adoption of the new constitution in 1909, a nominating committee presented a verbal report to the convention at the first day's session, and the election called at the third day's session was by viva voce vote. It was felt by some of the members that this method did not offer the best opportunity for the membership to express their preference as to officers, and, therefore, when the constitution was changed provision was made for the so-called secret ballot. It has developed in the election since the adoption of the constitution that this method is not entirely satisfactory, requiring considerable time. The committee proposed certain changes in the constitution, and submitted sample forms of ballots to be used. In the method proposed by the committee each member has an opportunity to vote for the membership of the nominating committee, and at the same time has opportunity to vote for any other member than those named by the nominating committee if he may desire to do so.

H. H. VAUGHAN, Assistant to the Vice President, C. P. R., in discussing the re-

ports, said that the matter was not of great importance so long as the association was willing to trust the election of officers to its nominating committee, but he thought that if printed ballots were to be used, some plan should be evolved by which the names of any members proposed as officers might be put on the ballots in addition to those proposed by the nominating committee. He suggested that the American Society of Mechanical Engineers' plan be adopted, by which the nominees of the committee on nominations are printed as such, but if any section of the membership desires to put up any other candidates for office, they have the privilege of doing so, and the names of such candidates are entered on the regular ballot which contains the names of the candidates proposed by the committee on nominations. This nomination of a candidate other than those nominated by the committee on nominations has to be signed by a certain number of members. He moved in amendment that where 20 members desire to propose a name of any member for any office in place of one or more of the names suggested by the nominating committee, that the secretary shall place that member's name on the printed ballot, making a statement in connection with such name that it has been proposed by a certain number of members. This amendment was adopted.

REVISION OF STANDARDS AND RECOMMENDED PRACTICE.

The committee on this subject said in its report, among other things:—"In accordance with action of this association, 1911 convention, with respect to the establishment of a maximum standard or limiting height for the running board of a standard dimension box car, your committee, after careful consideration, believes that this is governed by the height of the brake staff as referred to in the 1911 proceedings, pg. 564, which fixes this at 14 ft., and with this in mind, and the clearances for the brake wheel as established by the U. S. safety appliance standards, determines the maximum height of running board for the various construction of roof, and, therefore, does not concur in the suggestion."

H. H. VAUGHAN, Assistant to the Vice President, C. P. R., said that was an important question for the C. P. R., and also for other lines, and continued:—"We have in Canada legislation in connection with the height of clearances which is demanded, and I understand some of the bills have been introduced in the U. S., and we feel that it is impracticable to discuss the construction of cars of more than standard height. That is a matter that rests as a rule outside of the car department. But one thing we can do, and that is to fix the maximum height or standard dimension box cars. I think there is no objection to taking a limited height of $13\frac{1}{2}$ ft. on the running board or standard box cars. As nearly as we can ascertain, there are only about 30,000 cars in the U. S. and Canada which exceed this limit. It seems to me just as reasonable for this association to fix a limited height for the running board of a car, as it has been in the past to fix the height of eaves, etc. But if we can establish a limited height that constructors would work to in their cars, there would be some hope of keeping this running board height down to a certain limit. The difference may not appear very great, but if it amounts in practice to nearly 6 ins. in construction of bridges and in structures of that sort, it is important, and the amount of that kind of work that has been going on in Canada and the U. S. in recent years has been considerable. We are very much interested in seeing some action taken by this association that will put this matter in such shape that we can show the standard of the running board shall not exceed a figure to be determined by the committee on standards, which we hope