

they can make 13½ ft. for a standard dimension box car."

T. H. GOODNOW, M.C.B., Armour Car Lines, Chicago, who was chairman of the committee making the recommendation, said that one of the things that occurred to the committee's mind was the question of the longitudinal running board, coming up in connection with the outside metal roof, which naturally increased the height of the car at the eaves, and affected the height of the box car at that point. The committee felt that as railways are limited now by the height of the brake wheel and the clearance of the brake wheel under the U.S. appliances standards, to go any further would be tying it down pretty tight. He thought they could not take the benefit of half an inch, or an inch, especially with outside metal roofs and the additional running board that is required with that roof.

H. H. VAUGHAN could see no reason why the outside metal roof designer should not be kept down to designing to the limit. It was the height of the running board that was involved in the question. He moved that the report on the running board be referred back to the committee.

TESTS OF BRAKE SHOES.

This committee reported on brake beam standard as well as testing brake shoes.

L. C. ORD, Car Inspector, C.P.R., said he understood the Air Brake Association had a committee which has recommended 5 ft. for the length of the beam, and the Angus Shops thought it would be well for the committees of the two associations to co-operate in investigating the matter and to determine the standard length.

ELECTION OF OFFICERS.

The following officers were elected:—President, C. F. Fuller, Union Pacific; Vice Presidents, M. K. Barnum, Illinois Central; D. F. Crawford, Pennsylvania, and D. R. MacBain, Lake Shore and Michigan Southern; Treasurer, J. S. Lentz, Lehigh Valley. Executive Committee: R. E. Smith, Atlantic Coast Line; C. E. Chambers, Central of New Jersey, and H. LaRue, Chicago, Rock Island and Pacific.

At a subsequent meeting of the executive committee, J. W. Taylor was re-elected Secretary and F. W. Brasier was elected a member of the arbitration committee to succeed E. D. Bronner, who resigned on his appointment as General Manager, Michigan Central Rd.

American Railway Master Mechanics Association Meetings.

This association met at Atlantic City, June 17 to 19, the 1st Vice President, D. F. Crawford, G.S.M.P., Pennsylvania Lines, Pittsburgh, Pa., taking the chair in the absence through illness of H. T. Bentley, A.S.M.P. and M., Chicago Dock Island and Pacific Ry., Chicago, whose address was read by the secretary. Following are extracts:—

The question of consolidating the Association with the Master Car Builders Association has been discussed since the last convention, but the feeling of the members generally appears to be against anything of the sort being done; the thoughts expressed are to the effect that after 44 years of good service, it hardly seems wise that the A.R.M.M.A. should lose its identity. The two conventions could, however, be held in one week, Monday and Tuesday being set aside for the Master Mechanics' meeting; Wednesday for a joint meeting of the two associations to discuss matters of common interest, and Thursday and Friday for the Master Car Builders' Association. The principal reason for consolidating is to reduce the time away

from business, the present arrangement breaking into two weeks for those attending both conventions, but by handling it as suggested the duplication of work would be avoided by the joint session, and only five days would be taken up with both meetings.

A suggestion was made by the General Foremen's Association last year that the members be allowed to investigate and report to the Master Mechanics' Association upon matters pertaining to shop methods and practices, the statement being made that there might be numerous details in shop organization which we were desirous of obtaining information about, but for lack of time had to pass up, and which they were willing and anxious to investigate and report on if asked to do so. This offer was laid before the executive committee who will probably take advantage of it.

Apart from the experience gained at our meetings through the discussion of the various subjects presented, the opportunity for exchanging ideas among members, when outside of the Convention Hall, is great. I am a warm advocate of meetings of this kind, and know personally that valuable information can be obtained from people who have, perhaps, gone through some experiences that we are lacking. I believe we should insist on our men attending conventions; it broadens their ideas, gives them new thoughts and puts fresh life into them, so that on their return to business they are better able to grapple with the problems that confront them.

The question of promoting safety in the operating of railways has received a tremendous impetus lately. About eighteen months ago an organization was started on the Chicago and North Western Ry., in a very humble way, for the purpose of trying to reduce the number of accidents that were occurring daily on our tracks, in the movement of trains and in our shops and roundhouses. The plan worked out so well under the forceful leadership of the general claim agent, and with the assistance of the members of the central safety committee and the local committees on the various divisions, and the results were so gratifying that the scheme was quickly taken up by all of the large roads in the country, and now, fortunately, nearly everybody has acquired the "safety" habit, or as one road tersely sets forth, "It is better to be careful than crippled."

At one time it was thought that most accidents were inevitable, but when live safety committees got into action it is remarkable how quickly this idea changed, and a reduction in 16 months (the latest data for which figures are available) of 107 persons killed and 3,996 persons injured on the C. and N.W. shows what can be done when men make up their minds that it is better to cause a delay than to cause an accident. The fact that it is possible to make such a remarkable showing has induced the Railway Commission of Indiana to ask all the roads in that State to go and do likewise. Before long the Federal Government will probably step in and call for some action that will help this good cause along; if it would only pass a trespass law and enforce it, a large number of the 5,000 men, women and children who are now being killed each year, because of the dangerous track walking habit would be saved.

The past winter has been the most severe in years, as most of us know to our sorrow, and now that summer is here, we must remember our weaknesses and fix our fences before another winter comes along. In the summer we are liable to forget the cold weather, but that is the time to remember it, and taking advantage of the experience gained, to profit by it. It is only by having the engines and roundhouses in first-class condition that the best results can

be obtained, and I am sorry to say when the weather is warm we are likely to forget some of the things we promised to do when we were in trouble.

The progress in locomotive construction appears to have kept pace with the requirements, but nothing of a freakish design has been seen. The most radical departures noticed are the turbine locomotive, built and put in service at Milan, Italy, and the turbine electric locomotive constructed by the North British Locomotive Co. Dr. Diesel is also reported as having designed an electric locomotive, the generator being operated by a Diesel engine. So far, however, nothing definite has been heard of their performance.

The question of fuel economy is of greater importance than ever. The railways and locomotive builders, however, have had this before them, and a large number of Mikado engines have been built, which while pulling very little more tonnage than a consolidation engine, have done it with a decrease in coal consumed for the work performed.

In some places Mallet engines have displaced consolidations with remarkable success in the way of increasing the train load, reducing the number of trains, and doing the work with a reported saving of more than 40% in the amount of fuel burned over other engines engaged in similar service.

The superheater engine has given a good account of itself during the past few months, and the results obtained last winter were, generally speaking, very satisfactory. While we have had troubles on account of lubrication, headers leaking, etc., we are overcoming them successfully for the reason that our education has been improved by our difficulties and where regular men are employed, they soon become familiar with the different conditions brought about by the higher temperatures, so that no more trouble is experienced with superheater than with saturated engines, the improved results justifying the regular crewing of power, where possible.

Several switch engines have recently been equipped with superheaters and excellent results in the way of fuel and water economy are reported. It would seem that the best results in superheating could be obtained by an engine that is working practically up to its capacity most of the time, and not one in switching service, working intermittently, as most of them do, but the satisfactory service reported as being obtained by superheater switch engines would indicate a field for the device in that kind of work.

While nothing very new has been developed in the stoker line, steady progress has been made with the few that we consider have passed the experimental stage, and a number of Mallet engines have, during the past year, been equipped with them, in one case over 9,000 lbs. of coal per hour having been fed into a locomotive firebox by a mechanical stoker.

The question of efficiency in our shops has not been lost sight of. Careful investigations are constantly being made tending to increase our output and decrease cost, and in this we are being ably assisted by the tool and machine manufacturers, who are very much alive to our requirements.

The headlight question is still a very serious one for us; lack of uniformity in state and railway requirements making it difficult to know what to do for the best. The difference of opinion among railways as to what should be used is perhaps justifiable, for the reason that what would be entirely satisfactory on a busy double or four track road with block signals, might not be suitable for a single track road with very little traffic and no automatic signals, and it would be far better for the various states to call for a minimum re-