## THE

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## A.R.E. & M. of W. Association.

At the American Railway Engineering and Maintenance of Way Association's meeting in Chicago, Mar. 16, the President, W. McNab, Principal Assistant Engineer G.T.R., read an address, the principal portion of which was a contracted by the contract of the co

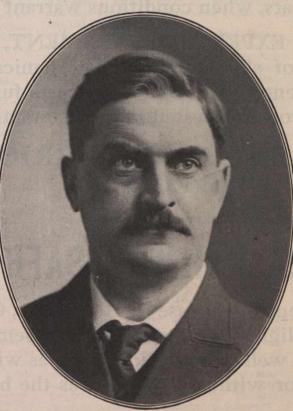
of active work, and during that period has made an envisible record, and now occupies a prominent position in the front rank

prominent position in the front rank of railway organizations and engineerng societies. The advantage gained this status turns on the beneficial the else it exerts in connection with he objects of the Association—the advancement of knowledge pertaining to the scients of knowledge pertaining to the scientific and economical location, construction, operation and maintenance of railways—an influence which been imparted to the railway world in a degree of usefulness, uni-Versal in its scope and almost unparal-leled in its import. This feature should be especially stated that the members especially gratifying to the members on this particular anniversary. More especially should this appeal to us, as few (if any) kindred bodies have, within the appeal or similar within the same period or similar stability, practical usefulness and, in several, the high standing attained by this Association.

In modern days, the science of railway engineering occupies a wide lay in the domain of civil engineering in the generic sense. This fact was railway construction, by the compilers of the lexicons of that period, the term as 'one who plans railways, harbors, etc.' railways apparently being defined by them docks, etc.' railways apparently being these early days down to the time when the present classification of exway was introduced, each rail-regard to physical standards, as well considered necessary for its proper the field of the course of time, however,

the field covered by what is comprehended so the term railway engineering, became supervision in detail from one source was officially enjoyed the broad title of civil engineer. Less degree, a lack of proper appreciation of as an adjunct to the practical working of the from y, and the results of experiments made dividually, to establish a justification for value, not alto establish a justification for value, statistication for value, statistication for value, statistication for value, as the case might be, was often ac-

quired only after the expenditure of large sums of money, direct or indirect, and the ascertained facts were jealously guarded by the interests concerned. To the railway world, however, the results of such investigations, even if known to be of benefit, did not meet all the requirements essential to a comprehension of what was expedient from an economic standpoint, and the lesson which should have been taught, viz., that as much, if not more, valuable experience is to be ac-



A. SHIELDS.

Master Mechanic Canadian Northern Railway.

quired through failures rather than from successes, was not properly brought home.

"The text-books upon particular subjects connected with railway engineering in use in earlier days, were produced under private or individual auspices. As a general rule they were ably edited, yet the perspective embraced was circumscribed by reason of existing circumstances, and the value of their use was necessarily limited on account of lack of systematic re-issue of such volumes with supplements to meet changing conditions. Special articles upon railway technical matters, which appeared from time to time, lacked the value of full discussion, and information thus imparted did not meet requirements; therefore, the interest created could only be looked upon as more or less temporary and super-

ficial. Railway engineering, as a great department of knowledge, eventually came to be so subdivided in order to meet the conditions of the times, that each subdivision practically developed into a distinct science, yet each department retained possession of all the elements tending to form a harmonious whole. Evolution in this respect, however, progressed slowly, and the methods and standards in use were in many instances adhered to too long, partly because their chief recommenda-

tion lay in the fact that they were time-honored, or that there was a lack knowledge of better substitutes. Nowadays, fewer text-books on details of railway construction and maintenance emanate from private sources, for the output of your Association, viz., the conclusions and principles of practice emanating from its various com-mittees, which eventually find their way into the Manual of Recommended Practice, have become the source of appeal in their respective spheres. If reference be made to the discussions preceding the adoption of such conclusions and principles of practice to be found in our Proceedings, it will be noted that every detail has been noted that every detail that every detail has been thoroughly covered. The bibliography of the Association is, in consequence, liberally made use of to advantage, not only by the members, but by the executive officers of our railways, as being practically authoritative on railway technical details. In this general connection, we are amply justified in stating that there need be no hesitancy in accepting as good modern practice, based upon scientific methods, the general principles which are recom-mended therein. You are all aware that before any of the various recommendations are adopted and dissemi-nated, they have been thoroughly dis-cussed, and voted upon in open convention by the most competent and up-to-date body of railway engineers to be found anywhere, and in no other organization is there a greater degree of care exercised to guard against inconsistencies than is exhibited in our own.

But while there is every reason to be proud of our achievements during these past ten years, we should not rest content, but endeavor to keep our work up-to-date by eliminating from our Recommended Practice what in course of time has become obsolete, and perfecting that which is considered worthy of retention, in order that our recommendations may be safely relied upon as representing the best practice that can be devised for the time being

vised for the time being.

In no quarter of the world do the diversities of nature, both physical and climatic, exist in a greater degree than on the North American Continent, and for this reason the problems confronting railway engineers afford ample opportunity for the exercise of that particular knowledge which your Association was formed to advance, namely, that per-