

RELATION OF THE TECHNICAL PRESS TO THE GOOD ROADS MOVEMENT.*

By Hyndman Irwin, B.A.Sc.,

ENGINEERING literature has as important a mission to fulfil in the field of highway work as it has in any other line of municipal or national development. It would not be difficult to substantiate a claim that it bears a much heavier responsibility here than in other phases of engineering work. For, in the road movement, as we of the present generation are obliged to regard it, we have many transitory practices to supplant, many precedents to uphold and many innovations to establish. The principles of dynamics, unchanged, of course, are served up in new and dissimilar ways, because of the variableness of traffic, climate and quality of materials. Generally speaking, each piece of work differs in several essentials from every other. The problem of making a dollar do the most work has innumerable counter-claims and conditions attached to it.

The successful engineer of to-day is necessarily a most diligent consumer of engineering literature. It is the most valuable instrument at his command. By it he acquires a knowledge of the experience and findings of others. To the highway engineer this knowledge is quite indispensable, particularly at this time when we are in the throes of revolutionary tendencies occasioned by the co-mingling on our thoroughfares of diversified methods of travel, heavier loads, increased speeds in every season, over arteries of commerce and pleasure fed by longer and more numerous tributaries than ever before. It is the lot of the road expert to strive constantly against the repellency of nature and the added negative influences of the transportation of man and his effects. The question of expenditure seldom allows him a conquest that is forceful and positive, but he is obliged to be satisfied with a compromise which is temporary and in need of constant vigilance. He cannot expect his own personal judgment and experience to carry him over all the difficulties of his work. In fact, without a knowledge of the experience of others he is unable to judge from an economic standpoint the success or failure of his own. Modern highway improvement and maintenance do not entirely submit to old and well-defined principles that, once inculcated, serve for all time. New methods, new machinery, new materials, up-to-date organization and management—these are vital points in the foundation upon which the good roads movement of to-day depends. Without a working knowledge of them the road man is not suitably equipped for his work. This knowledge, however, can be acquired in a sufficiently comprehensive degree in only one way—through the pages of the technical press.

In dealing with the relation of the technical press to the good roads movement one must include under the general title not only periodic literature, such as technical and trade journals, bulletins, proceedings of engineering and road organizations and reports of governmental departments, but also books, pamphlets and catalogues. They are all of value to the road expert. From catalogues, for instance, he obtains information respecting new machinery and appliances, their general construction, capacities, efficiencies and costs. This information is a very important asset, as the problems of

road construction, maintenance and repair, from the viewpoint of the road superintendent, are largely a matter of machinery, and are rapidly providing steady employment for men who have had a training in mechanical work. Likewise the publications of producers of road materials contain information scientifically compiled and arranged in a manner that admits of ready assimilation without material effort or study. Government books of records and statistics of physical and climatic conditions, reports of official tests, etc., are of great value. In short, there are many elements of the technical press which should be included. It is the purpose here, however, to refer to the class of technical literature for which the road man is obliged to pay money, viz., books and periodicals, and define their degrees of usefulness in the general establishment and upkeep of road systems.

With the publishing houses pouring forth an avalanche of new books, it is, perhaps, opportune to observe that there are many classes of books, as well as many books on road engineering and administration. This applies, of course, to literature of all descriptions, but as at this juncture of the road movement so much dependence is to be placed on written thought, attention may well be called to its varying qualities.

Books may be based upon right or wrong theories; they may describe good or poor practice; they may be well or poorly written. Their contents may consist of old material in new garb, or valuable and unpublished facts in unreadable form. Books may be evenly balanced, smoothly written, comprehensive treatises of principles, or they may be misleading and unreliable accumulations of jumbled notions. How often we find in our libraries two books on the same subject, one a veritable interest-binder, and another as difficult to read as a blue book on banking statistics. Again, a book may be abnormally padded with the apparent view of approaching the size of a higher-priced volume, while its antithesis is found to possess, in concise and logical manner, thoughts that are exceptionally clear and every thought in its proper sequence with its antecedent.

Comparatively few road men have large sums to invest on the literature pertaining to their work, but when a man on the job wants information of a technical character he generally wants it badly, and he is not generally so located that he can examine the reference books in the library or the samples on a publisher's shelves in order to ascertain whether or not the information he desires is contained in the books which would there be presented to him for examination. Not every man knows, moreover, just what the information which he desires to secure will entail in the matter of such examination. Book-purchasing under these circumstances bears a marked resemblance to the old-time horse trade, in so far as hidden qualities are concerned. The book purchaser, however, is not distrustful of the author or publisher, and is more likely to infer that the book is a good one, else it would not have been published. The circulars descriptive of the scope and qualities of the published work should naturally be expected to bring out the good points which it may possess, but other features, perhaps undesirable, may be quite overlooked. It is to be remembered that among the very reputable publishers of engineering works, even the best are not immune from misjudging a manuscript which may, when published, prove to fall very short of expectations, and to be unauthentic in some of its important statements.

Evidently the selection of sources of technical information is an important one to the road expert. Briefly, the reviews of newly published books, to be found in the

* Extracts from paper read at the First Canadian and International Good Roads Congress, Montreal, May 20th, 1914.