

Editorial

ENGINEERS AS VIEWED BY THE CONTRACTOR.

The relation between engineers and contractors has always been a vexed question and any improvement in the harmony of their relations is made difficult because they represent opposing interests to a considerable degree. It would, of course, be unfair to expect that differences of opinion will not exist at times between these two. It is inevitable when human agencies are involved.

Contractors are in very many instances largely influenced by the opinions of engineers. The engineer who has already earned a reputation for ability, honesty, a disposition to fairness, will always attract bidders for any work with which he may be trusted.

In bidding for work contractors are about as sensitive as weather vanes. They know it is quite possible to make a profit at a given bid under one engineer and impossible to avoid a loss under some other engineer, even when all other conditions are practically the same.

Then, again, if an engineer's preliminary estimate is believed to be too low it tends to drive away bidders and to indifferent high bidding. Under such circumstances some contractors who are over-anxious for work are influenced to bid too low. They may get the work, in which event the engineer has an unpleasant task on his hands during construction. As a result, too, there is almost sure to be a disposition on the part of the contractor to save himself from loss and he is thus tempted to slight the quality of the work. In such a case both contractors and engineers are in some degree injured by the work having been done at less than cost.

The engineer who can make reliable preliminary estimates will always find his services in demand by municipalities, corporations and others.

LITERATURE AND THE ENGINEER.

One great sneer on the lips of so-called superior people is that the present is a machine-made age. Frankly it is; and of all the matters which distinguish and make the age interesting, mechanism and mechanical art generally must have a foremost place.

Each age in history is now considered as distinguished in some one direction and it is rightly assumed that those connected with each age's activity were peculiarly blessed. To be closely associated with the moving motive of the present day need therefore cause no misgivings.

The men who write for universal consumption are, in the main, apart from its leading feature. The engineer's mentality runs less to words than deeds, hence much misconception as to his real importance in the realm of books. Individual craftsmanship has given place to more intensive cultivation, needing collective effort spread through many sub-sections, each of which demand skill equal to that formerly needed in a wider sense. Team effort, organized production on an immense scale has taken the place of isolated manual dexterity. Can no writer of eminence find in such material, scope?

The historian of the future must inevitably turn to the files of the technical press if he is rightly to interpret the last few decades. The history of the world has received an indelible mark from the hand and brain of the engineer which will endure to the end of time.

Wealth, comfort and convenience have all been profoundly affected less by the speech of the politician than by the work of multitudes of unrecorded men with a common end in view. Nothing done in an engineering sense has been devoid of communal good, save that perfected engines of destruction have issued from the same source. Yet, even progress here is ultimately to end war more certainly than diplomacy. Cheap bread, cheap transport, cheap meat, cheap wearing apparel, and the thousand and one essentials which make up the material comfort of modern life have a single hand visible throughout the entire series. It is the hand of the engineer.

Literature, because of its lack of technical understanding, has avoided him—has failed lamentably to analyze his work or popularize his activities. It is high time that the engineer spoke for himself, that his overdue claims in the matter be recognized.

Technical literature of a practical order is surprisingly well done, but is a thing apart from usual literary notice. As a specialist the engineer discusses matters of a particular and not of general interest, and is penalized therefor. He uses terms and phrases not familiar. He is developing a special literature suited for particular consumption, finding keen delight in what must inevitably be puzzling to the outsider. As the activities of the engineer take a wide range the average journalist will be forced into line. He will have to understand at least the broad features of the engineering field so that he may rightly interpret for the more general public.

ONTARIO GOOD ROADS ASSOCIATION.

The suggestion that the Federal, Provincial and municipal authorities co-operate in finding employment for returned soldiers by the construction of highways was embodied in a resolution adopted at the fifteenth annual convention of the Ontario Good Roads Association held at Toronto last week.

Mr. W. Huber, assistant engineer of the Department of Public Highways, in the course of an address on "Reducing Construction Costs by Increased Efficiency," made specific mention of the various factors which governed efficient engineering, as follows: Traffic conditions, freight rates, condition of roads, labor market, etc.

In summing up, Mr. Huber said that the efficiency of road construction depended upon the systematic planning of the work, the careful supervision, the selection of the best and most responsible men, the fair treatment of the workers, and the adoption of a suitable system of records.

The following are among the resolutions adopted:—

1. That the province be asked to pay for 40 per cent. of all roads erected under the Provincial Highways Act.
2. That Legislature be asked to undertake the construction of a provincial roadway from Windsor to