# The Canadian Engineer

ESTABLISHED 1893.

WITH WHICH IS INCORPORATED

# THE CANADIAN MACHINE SHOP.

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TORONTO, JUNE 7th, 1907.

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ISSUED WEEKLY IN THE INTERESTS OF THE

CIVIL, MECHANICAL, STRUCTURAL, ELECTRICAL, LOCOMOTIVE, STATIONARY. MARINE, MINING, METALLURGICAL AND SANITARY ENGINEER, THE SURVEYOR, THE MANUFACTURER, THE CONTRACTOR AND THE MERCHANT IN THE METAL TRADES

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#### REFORM IS IMPERATIVE.

Last month there arrived at Buffalo a train carrying twenty-eight bodies. They were the victims of the Southern Pacific Railway wreck at Honda. The cause of the disaster was a broken rail. Once again public indignation was aroused. Once more the daily press was furnished with good, sensational "railroad acci-"dent" copy. Manufacturers of steel rails and the railway companies have appointed a committee of experts to discuss the divergent views held on the subject of the broken rail.

For years this question has been a live topic in transportation circles. The rail manufacturers have blamed the railroads, and the railroad companies have blamed the manufacturers. While this enlightening controversy has raged, hundreds of human lives have been sacrificed. Cheap and nasty methods in railroad construction will not do. Too many issues are involved for any "skimping" work. On one road alone in the United States six hundred cases of broken rails were noted in two months. Every such break means the possibility of a wreck. It is thus a wonder that there have not been more derailments.

There was a time when the rails in the United States and Canada were rolled to the railroad engineers' specifications. Now, the rails are received, generally speaking, from one huge corporation. They are certainly not of such good quality as in the days gone by. It is all very well to make cheap rails. It suits these hustling days to manufacture them quickly. But rails cannot be made too cheaply and too quickly and yet retain quality.

As far as the average man can see, much of the evil rests with the rail factory. All concerns look to increased profits and dividends. But they should remember also that the good quality of their product is a very necessary item. It is the bounden duty of every factory to see that the rails they turn out are of the very best quality. The Almighty Dollar must not be the manufacturer's motto always. The annual toll of railroad accidents in Canada and the United States has reached about the limit.

It is time that engineers thoroughly investigated the causes of every accident, and endeavored to eradicate those causes. The public patience has been transformed almost to impatience. Reading of fatal railroad catastrophes every week is not conducive to the cultivation of public confidence in our steam transportation companies. It would be to the advantage of our big railroad companies to institute an investigation. One thing is certain, the appalling life loss caused by these accidents must be reduced. Until this is done it would be well that our much-vaunted progress in the science of transportation should not be made the subject of boasting.

#### TO BUILD OR NOT TO BUILD.

For fifty years the question of the Georgian Bay Canal has been discussed. As a hoary transportation topic, it almost rivals the English Channel tunnel. Compared with the latter enterprise, it demands far more serious consideration. The construction of this waterway would change the transportation map of Canada. In discussing the different actual and possible routes to