

# The Canadian Engineer

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A Weekly Paper for Civil Engineers and Contractors

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## PAVEMENT GUARANTEES

**H**EATED discussion followed the proposal made last February to the American Road Builders' Association by its committee on economic status of guarantees for pavements on roads and streets, that 10% of the contract price of new paving, and 20% of the contract price of resurfacing work, be retained by municipalities as a guarantee of satisfactory construction.

It was claimed by the paving contractors that serious injury would be done to their business as a result of the retention of such a large percentage of their contract price. The committee took these objections into consideration and decided that they could be practically eliminated by reducing the amount of the retained percentage to a point where the money retained would merely equal the reserve which the contractor might reasonably be expected to set aside to cover repairs.

From the committee's final report, published in *The Canadian Engineer* for November 27th, 1919, it will be noted that the amount of the guarantee was reduced from 10% to 5% for new construction, and from 20% to 8% for resurfacing, with the idea that the contractor should be paid immediately upon completion of his work all the money which he has expended in construction, together with a 10% profit.

Francis P. Smith, consulting paving engineer, New York City, advises us that the committee were of the opinion that if paving work be constructed with reasonable care, the percentage guarantee finally recommended by the committee would be sufficient to cover all ordinary repairs, and that it is inadvisable and nearly impossible to set aside a reserve sufficiently large to cover anything like a complete failure of pavements, and that protection against such contingency should come from the guarantee bond.

## ENGINEERING WORK AT THE FRONT

**C**ANADIAN engineers who saw active service with units in France are probably without knowledge of the doings of other "sappers," who served in Siberia; and officers and men who were sent to Italy have no idea what kind of work had to be done in India; those who were in Serbia have heard little of conditions in Gallipoli; sappers who encountered great heat in Mesopotamia would be interested to know the conditions that were met on the Archangel front. Each and every front of our expeditionary force had its own trials and met conditions peculiar to the part of the world in which it was engaged. Sappers were called upon, probably everywhere, to fulfil their functions as complete units or field companies, but there is no doubt but that individual sappers, or small parties of sappers, were often sent to perform some important work, away from the force and lines of communication, where unique difficulties were encountered.

It is suggested that it would be very interesting to all engineers, whether they have served overseas or not, to read short accounts of the experiences of sappers who have served on the different fronts. *The Canadian Engineer* would like to receive and will gladly pay for articles dealing with the different phases of sapper activity on the various fronts.

Those Canadian engineers who served with bridging trains in Palestine and Egypt could write valuable accounts of engineering operations prior to the capture of Jerusalem, and those who were building railways could put together interesting material on this subject. Many Canadians also served with the Royal Engineers in India, Mesopotamia, Persia and other countries, and every man must have had some engineering experiences differing from those of his fellows.

## COURT ACTION FOLLOWS ELECTROLYSIS

**A**CCORDING to T. H. Hooper, waterworks superintendent, approximately twenty-five miles of Winnipeg's water mains are at present affected by stray electrical currents from the tracks of the Winnipeg Electric Railway Co. Mr. Hooper has been instructed to report upon the cost of examining the whole of the twenty-five miles affected. The city is now suing the company for \$18,000 alleged damages through electrolysis.

## SUIT AGAINST ONTARIO "HYDRO"

**T**HE council of Stamford township, Ontario, is about to bring a test suit against the Hydro-Electric Power Commission of Ontario in connection with the power canal which is being built between Chippawa and Queenston. In the past five months sixty wells have dried up in Stamford within half a mile of the canal. The Hydro Commission decline to admit liability and refuse to supply the farmers affected with water unless they pay for it.

## MOTOR FLUSHERS EFFECT BIG SAVINGS

**I**NTERESTING facts relative to the saving effected by the replacement of horse-drawn equipment by motor street-flushers are given in the report of the Works Commissioner of Ottawa. He says: "Each of our flushers mounted on motor trucks has replaced ten horse-drawn outfits. Two 1,000-gallon power flushers mounted on 3½-ton trucks operated all year, flushing an average of 18 miles of pavement, of all widths per day at a cost of \$1.72 per mile. The total cost was \$4,650 for 150 days of actual operation. The teams formerly used accomplished this work for \$16,800."

**T**HE editorial, business and mechanical staffs of *"The Canadian Engineer"* wish every reader a right merry Christmas and a happy New Year.