

ENGINEERING PROBLEMS OF CANADIAN CORPS FEATURED AT MEETING OF ENGINEERS

Delegates at Convention Had Another Interesting Day—Heard Papers, Had Automobile Drive, Dance and Luncheon—Hampton and Gondola Point Visited Yesterday Afternoon.

The second day of the fifth general professional meeting of the Engineering Institute of Canada was devoted partly to business and partly to pleasure, and judging from the faces of the members they enjoyed every minute of it. The morning session was devoted to business entirely, papers being read by F. A. Bowman, of Halifax, on "Engineering Problems Connected With the Use of Telephones," and V. B. Mackay, of Halifax, on "Heating Problems Produced by Some of the Modern Methods of Building Construction."

At one o'clock the members were the guests of the St. John Board of Trade at luncheon in Bond's. At 2.30 a most interesting paper on Canadian Corps engineering problems during the advance of 1918 was read by R. Fraser Armstrong. At 3.15 automobiles were taken for a trip to Hampton. After tea at the Wayside Inn, Gondola Point was visited, where a pleasant hour was spent in tripping the light fantastic. The party arrived back in the city about 8.30 o'clock.

After luncheon, R. B. Emerson, president of the Board of Trade, extended a welcome on behalf of the Board and business men of the city to the visiting engineers. They represented a department of activity in which the Board of Trade was greatly interested, as it was through the engineers all development must come. Without the aid of the engineers this city could not be made a national port for they must supply the plans for the facilities. The transportation companies must depend on them to keep pace with the growing needs of the country. The great war could not have been successfully won without the aid of the engineers—and the part played in that war by the Canadian engineers was no mean one. Now they were able to turn their thought and abilities once more to the arts of peace. The development of this great Canada in the days to come lay largely in their hands.

He then called on Lieut.-Col. R. W. Leonard, president of the Institute, who said it was a personal pleasure to him to come to St. John and revisit old scenes. On behalf of the Engineering Institute of Canada, he thanked the Board of Trade for its hospitality and kind words. It was rarely that a layman expressed the appreciation of the multiple problems met with by the engineer as had the chairman in his address. He then briefly sketched the history of the organization, which forty years ago was begun as the Canadian Society of Civil Engineers, but a few years ago had been enlarged to take in every branch of engineering and was now known as the Engineering Institute of Canada. He expressed the regrets of Mr. Vaughan, Mr. Francis and General Bertram at not being able to be present.

Solving Difficulties. Dealing with the unrest of the times, the speaker contended that the engineers were the one body who were in a position to deal sanely with these problems. They were not employers of labor, neither were they laborers in the generally accepted meaning of that term today, yet they were in close touch with both capital and labor. They were able to appreciate the claims of labor and the attitude of capital toward these claims. He believed that if both parties would consent to have the engineers act as arbitrators the great majority of these questions could be settled to the satisfaction of all concerned. He referred to the fact that this Institute had been asked to send three delegates to the industrial conference soon to meet in Ottawa, and he believed they could do a great deal of good there.

He next called on His Worship Mayor Hayes, who said he had already been heard twice by the body and he did not propose to inflict a third speech on them, but was pleased to meet with them.

C. O. Kirby, chairman of the St. John Branch, was next called upon. He extended the thanks of the St. John Branch to the Board of Trade for their hospitality. He assured them that the members of this branch were taking a keen interest in all the local problems and were following closely the developments, and served notice on the members of the Common Council present that before long this branch intended to make itself felt and have something to say in civic matters.

J. K. Canong said the greatest thing in life in his estimation, apart from religion, was achievement, and the spirit of achievement was that of the engineer, the man who was always

looking ahead to getting something done, and whose work in the main was for the bettering of living conditions. F. A. Bowman, chairman of the Halifax Branch, said it gave him great pleasure to be at a gathering of this kind, which in his estimation was a splendid illustration of the spirit of cooperation growing up all over the world. He was especially glad to meet the business men of the community, and every gathering of this kind tended to bring about a better understanding between the business men and the engineers. The Maritime engineers had a group of problems peculiar to this locality, and the discussion of these in convention was bound to aid in arriving at a solution. On behalf of the Nova Scotia Branch, he thanked the Board for its hospitality.

Engineers at the Front.

Colonel Leonard then took the chair and called on R. Fraser Armstrong, town manager of Woodstock, for an address on Canadian Corps engineering problems during the advance of 1918. Captain Armstrong was in charge of the water installation branch during this period. He referred briefly to the change which was made early in 1918, in the organization of the engineering department of the Canadian Corps, when it was arranged into four brigades of four battalions each of about the same strength as an infantry battalion. The engineers were responsible for the bridging, water supply, tramways and roads.

In the spring of 1918 when it looked at one time as though the Canadians might have to fall back in the Arras region, plans for the delaying of the German advance were formulated, and these included the spreading of a lot of barbed wire and the flooding of a considerable space of country in the Scarpe region. Seven dams were built, fifteen sappers and seventy men being employed on each, enabling them to flood the country, if necessary, in seventy-two hours. He stated that during a foggy spell this was tried

out and came up to expectations.

Dealing with bridge work, the bridges were of three types, one for infantry crossing, one for first line transport and one for heavy transport. For infantry crossing they used a plank and cork bridge. For first line transport, a pontoon bridge, and on one occasion they had laid a pontoon bridge ninety feet long in one and a half hours. The bridge used for heavy transport was known as the Ingles portable and this bridge, built in sections, 12 feet wide, 12 feet high and 12 feet deep carried the heaviest traffic. One of these bridges, 108 feet long, was placed in position ready for use in 12 1/2 hours. During an advance 200 bridges were built by the Canadian Corps and of these 86 were for heavy traffic. The Canadian Corps did some of the best work in France. Once troops to the left of the Canadian division had to come down and use the Canadian bridges to cross the canal. The corps had been able to carry their tramways right up with

BEWARE OF TENDER, INFLAMED GUMS

Pyorrhea, with a premature loss of teeth, is almost inevitable if you do not properly care for your gums. Here is the explanation:

As you age, the body tissues naturally relax. You see this tissue loosening in the neck. It goes on in your gums, too. As you grow older, your gums shrink below the normal gum line. Through lack of care they become spongy and inflamed. Then you have Pyorrhea (Riggs' Disease). Four out of five people over forty have Pyorrhea. And many under forty, also.

Don't let a tender gum spot develop. These tender spots breed disease germs which enter the system through tiny openings—infected the joints or tonsils—causing other ailments. Immediately get Forhan's, which positively prevents Pyorrhea used in time and used consistently. Forhan's tones the gums and hardens them. They in turn keep the teeth healthy. Brush your teeth with Forhan's. It cleans them scientifically—keeps them white and clean.

If gum-shrinkage has already set in, start using Forhan's and consult a dentist immediately for special treatment, 35 and 60c tubes. All druggists. FORHAN'S LTD., Montreal.

Forhan's
FOR THE GUMS

BABY HAD DIARRHOEA WAS GIVEN UP.

DR. FOWLER'S EXTRACT OF WILD STRAWBERRY CURED HER.

Mother should look well after their children during the hot summer months, as this is the time of year when the young ones are liable to all kinds of bowel complaints.

If your children have any looseness of the bowels do not experiment with new and untried remedies. Get one having stood the test of time. Dr. Fowler's Extract of Wild Strawberry has been on the market for the past 74 years. Don't accept a substitute and perhaps endanger your child's life.

Mrs. Willis Coupland, Sundridge, Ont., writes:—"About four years ago my little girl, then a baby two months old, took diarrhoea. I took her to the doctor, but to no avail. After he had given her up, I read of Dr. Fowler's Extract of Wild Strawberry and immediately got a bottle. Within two days she was improving fast. I can not over-praise it enough. I hope some poor sufferers will see this letter and lead them to a friend indeed."

Price 35 cents. Put up only by The T. Milburn Co., Limited, Toronto, Ont.

the troops and the average daily load of supplies was 1,500 tons. During this advance 773 miles of road were repaired and maintained for heavy traffic and 290 miles of dry weather track to keep horse transport off the main roads.

The providing of water was one of the big jobs of the engineers. Approximately 100,000 men and 25,000 horses having to be cared for.

During August, September and October, 1918, forty-two pumping stations were erected. Eighty-five water points were established and these were fed by tank lorries. Fifty-five thousand feet of pipe was placed or reclaimed. Thirty reservoirs of from 8,000 to 18,000 gallons capacity each were constructed. Six thousand lineal feet of horse troughing was placed and forty water tank lorries kept in constant use.

A hearty vote of thanks was extended to Mr. Armstrong for his excellent paper, on motion of C. McE. Sievea.

Automobile Drive.

At 3.15 cars were taken for the drive to Hampton and this proved most enjoyable to every one who was able to take part. The weather man was kind enough to smile on the event and the rain which had fallen

early in the day had only laid the dust. The scenic beauty of the drive made a great impression on the visitors, one gentleman, who has seen Canada from end to end stating that he did not know of any city in the Dominion which had the scenic drives of St. John. Arriving at the Wayside Inn, five o'clock tea was served after which the party proceeded to Gondola Point, where a couple of hours was spent in dancing, the new pavilion providing excellent accommodation for those who wished to indulge. The St. John branch were the hosts at the drive and tea at Hampton, and they proved fine entertainers.

Today will be largely devoted to sightseeing. This morning a trip will be made around the harbor, at one o'clock the members will be the guests of the St. John Dry Dock and Shipbuilding Co. for lunch at Courtesay Bay; at 2.30 there will be a paper by A. R. Crookshank on "Construction of Beacon Bar Wharves," and at 3.30 trips to various manufacturing plants.

Morning Session.

At the morning session F. A. Bowman, M. E. I. C., plant engineer of the Maritime Telegraph and Telephone Co., Halifax, read a valuable paper on engineering problems connected with the use of telephone cables. He said that where thousands of telephones were used in a city, all the wires must be compressed into as small a space as possible and the telephone cable was the result. The transmission power of a telephone was arranged so that any subscriber could use his phone for any length of trunk line calls. The current used was so small that a very small wire could be used to transmit it. He explained that the reason why wires leading into the subscriber's place were twisted was chiefly to prevent induction from the nearby circuits.

Wires in cables were insulated from one another by two layers of dry manilla tissue paper wound around them. He said that the speed of electricity was the same as that of light—188,000 feet a second. Mr. Bowman exhibited some samples of equipment and cables, showing amongst other things the means adopted to prevent dampness affecting the service. He also showed the means used to protect telephones from damage by lightning or other high potential currents.

He explained how an aerial cable is supported by a steel wire as the weight of the cable would not allow it to be suspended on its own strength. In suspending the cables allowance had to be made for all sorts of weather and the added weight of ice and snow arranged for. The speaker also explained how the poles were strung (Continued on Page 7)



Come!
Here's New
Health and
New Life

It is wonderful how quickly Wincarnis will benefit you when you are Weak, Anaemic, Nervous, and Run Down. Get a bottle of Wincarnis to-day and see how quickly it will help you to regain your former health and vitality.

Remember that your health is your most valuable possession. Ill-health, apart from the misery it causes, deprives you of your right to enjoyment and handicaps you in your daily duties. But good health—glorious, glowing health—can be yours if you take Wincarnis. Because it possesses a four-fold power in creating the health you need.

Wincarnis is a tonic, a regenerative, a blood-maker, and a nerve food—all in one. Therefore it promotes new strength, new blood, new nerve force and new vitality. That is why over 10,000 doctors recommend Wincarnis. And it is also the reason why you can take Wincarnis with the certain knowledge that it can give you new health.

If you are weak, Wincarnis will give you new strength. If you are anaemic, Wincarnis will give you new rich red blood. If you are nervous, Wincarnis will give you new nerve force. If you are run-

down, Wincarnis will give you new vitality.

Wincarnis has been famous in Europe for a third of a century. Thousands have testified that it has restored them to health and strength. Don't confuse it with the many inferior preparations of apparently similar names; buy Wincarnis itself, the tonic that has been successfully imitated for nearly 40 years.

Ask your Doctor. Get it at your Druggist's.

Two sizes \$1.00 and (extra large bottle) \$1.75

Invaluable in cases of

Anaemia, Sleeplessness, Debility, Exhaustion, Brain Fog, Lassitude, Nervous Disorders, Carcinoma, Lowered Vitality, La Grippe, Fatality Weakness, Chills

Prepared by: COLEMAN & CO., Wincarnis Works, Newburgh, N.Y.

Canadian Office, 67 Yorkland St., Toronto. Sales Agents for the Dominion: FRANK S. HALL, Resident Director.

Ralph J. Parsons & Co., 101 Bay St., Toronto.

INSURE WITH THE

Guardian Accident and Guarantee Company

Accident, Sickness, Employers' Liability, Guarantee Bonds, Burglary and Plate Glass Insurance.

Knowlton & Gilchrist, General Agents, St. John, N. B.

The Original Kellogg's Toasted Corn Flakes are protected by the WAXTITE Moisture Proof Package

Our improved method of production enables us to put into the package Corn Flakes of an unvarying quality.

The WAXTITE wrapped package ensures them reaching your table in the same condition, with that flavor that cannot be imitated and as fresh as when they left the ovens in our TORONTO KITCHENS.

Millions were served at breakfast this morning with Kellogg's Toasted Corn Flakes out of the WAXTITE package and millions will be to-morrow.

Ask your grocer for KELLOGG'S in WAXTITE wrapper, others are imitations.

MADE IN TORONTO, CANADA

By The

W. K. Kellogg
Cereal Co.

Kellogg Toasted Corn Flake Company
Battle Creek, Mich. — Toronto, Canada

MOISTURE
and AIR
PROOF



Look for this signature



Cuticura
SOAP
OINTMENT & TALCUM

The pore-cleansing, purifying and sanitizing properties of this wonderful skin soap, using plenty of hot water and soap, best applied with the hands, will prove helpful to those who use it for the first time. Touch eruptions, roughness or irritation, if any, with Cuticura Ointment before bathing. Dry and dust lightly with Cuticura Talcum, a fascinating fragrance for powdering and preserving the skin. Nothing better than these ideal skin purifiers and their cost is but little.

Cuticura Soap Co., Ointment 25 and 50c, Soap 25c, Talcum 10c. For sample, each free. Write: "Cuticura," Dept. K, Boston, U.S.A.



NEW NEWER NEWEST
In the latest curves of fashion, in the new weaves, colors and fabrics.

Suits, \$25 to \$65.
Fall overcoats, \$20 to \$50.

Gilmour's, 68 King St.

FOR HEADACHE AND NEURALGIA
AK TABLETS
FOR ALL PAIN
ASK FOR AK TABLETS



of the Victrola
is a finer thing

inner for all of you,
for each of you—
"where there are

er's Voice"
ORDS

ch, double-sided

—Fox Tots Jos. C. Smith's Orch
es from Dixieland—American
That Say "I Love You"
Irving and Jack Kaufman
Dougherty Jack and Daughnut
Goniffrey O'Hara
ables—Waltz—end—Burmah Moon
Win. Eckstein's Strand Trio
—Have a Smile—Molly Fox Trot
Pietro

al Records
ed Catalogue Prices

o (Tenor) Enrico Caruso \$2.50
Jascha Heifetz 1.25
Jul (Soprano) Galli-Curci 2.00
Krisler 1.25
nd) Emilie de Gogern 1.25

\$3.97, sold on easy payments, if
of our 624-page Musical Encyclo-
"His Master's Voice" Records.

at any "His
oice" dealers

Gram-o-phone Co., Limited
entral

McMILLAN,

Distributors for
me Provinces

Coast, P. Q.

GO TO—
VARIETY STORE

and Exmouth Streets
ORDS, NEEDLES, ETC.

the improved Victrola IV.
ly \$34.00

Victor Records at
RETT'S

Union Street.