

will help to keep farmers and the farm. This is safety-first. Bolshevism does not flourish on the farm. The red-rag flag gets no applause or color-bearer among country folks. The red-light danger signals flash their warning from the city, not from God's great out-of-doors.

The biggest men, the best minds and the ablest statesmen must hold the helm on the ship if great nations are to endure. Your country and mine will be most secure and content if we do those things that will keep a normal percentage of our people outside of the city. Again, macadam, mileage and maintenance are the panacea. Roads for the many, not alone for the few. Good roads are never a menace. Good roads cost less than bad roads.

"Macadam-Victory Roads"

"Macadam-Victory Roads" made thrones crumble and crowns tumble. John Louden Macadam helped to paint the picture of Hun battleships in the North Sea floating a white flag and surrendering Germany's sea power forever. Macadam helped to write the greatest chapter in human history and in human liberty. Macadam has set the makers of geography to the task of re-charting the world.

It costs more to live to-day than ever before, but it's worth more to be living now than ever before.

The peace treaty and the League of Nations will not settle all questions, but they will settle the Huns. Britain, France and the United States have not always drunk from the same canteen, but when we fought together on the fields of France and Flanders, we forged a mighty link in friendship's chain which I hope will be broken never. We dedicated and consecrated "Macadam-Victory Roads" to peace on earth and to the brotherhood of man. In lands where God and the Golden Rule hold sway, there the name of John Louden Macadam will be applauded forever.

The spring meeting of the American Society of Mechanical Engineers will be held June 16th to 19th at Hotel Statler, Detroit, Mich.

"Tension members of wood have been used for tramway stations in Vienna, and given complete satisfaction," says a recent issue of a German engineering journal. "It is, however, essential that the wood be well seasoned, impregnated to prevent warping and decay, and completely covered with concrete, as the chloride of magnesium in the cement assists preservation." An illustration is given of a staircase step where concrete is economised by enclosing a hollow wooden box in the step. The box is kept in position by stout wire. Rushes have been used in accordance with a German patent for concrete ships.

Thomas Adams, town planning adviser to the Commission of Conservation, read a paper at a recent town-planning conference at Niagara Falls, Ont., in which he said that a regional survey of the Canadian Niagara district is much needed. The problems to be solved, he said, include industrial development, economic use and regulation of land subdivisions, housing and sanitation, transportation, power distribution, water supplies, sewerage, parks and boulevards. Cheap power is having its effect in building up this district, said Mr. Adams. On the Canadian side of the river there are 145 manufacturing establishments and there are only 183 on the United States side outside of Buffalo.

The contract for the Hunter St. bridge, Peterborough, Ont., has not yet been awarded, as the members of the city council cannot agree upon the terms of the contract. A by-law had been prepared, awarding the contract to the Canadian Engineering & Contracting Co., of Hamilton, Ont., on a cost-plus basis, the company guaranteeing that the bridge would not cost more than \$276,000. Subsequently, however, the city council passed a by-law raising the rate of wages and reducing the hours of labor. In view of this increased expense, the company was forced to withdraw its guarantee as to the maximum cost. The by-law authorizing the award of the contract was then defeated. The matter will be discussed further at the next council meeting.

DEVELOPMENT OF RURAL MOTOR EXPRESS*

BY F. W. FENN

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ALTHOUGH the greatest problem confronting us to-day is the high cost of living, we are fortunate in possessing two dominating factors which if applied, and applied in the right way, will tend to lower food cost to the place where it properly belongs. I refer to good roads and highway transportation.

Highway transportation is already here, but, with the exception of a small percentage, our roads are not adequate to efficient haulage. To make this form of transportation efficient and economical, we must have a solid roadbed,—heavy enough and firm enough to allow for speed and tonnage.

Consumers Need Good Roads

You cannot have these if you are operating in mud. Mud retards progress; your operating costs increase, and hence you are not able to give your patrons transportation at a figure which could be called economical, nor can you expect to receive from your operation the profit which would come to you if the operation were on a solid base.

Therefore under these conditions you would not be doing much in the way of lowering food costs to the consumer.

The consumer, as well as the producer (the farmer) should be as much interested in better roads as the operator who uses them, for economy in this line will affect all.

It has always been the practice to develop up to the existing demand. You would not build or make anything for which a demand did not exist. Taking the railroads as an example,—development of load always preceded the development of the steel highway. In the early days, wooden rails with iron bands were used because the traffic of the day did not demand more. However, as trains grew in length, cars became larger and locomotives became heavier; heavier rails were laid; ties were placed closer together; rock ballast was resorted to and stronger bridges were built. The railroad had developed up to the demands which its tonnage was making upon its roadbed.

Our tonnage for highway transportation is here, and the most flexible machine in the world for hauling that tonnage is here also when we apply the motor truck, but the highway must be built to carry it. We must not build as we built to carry horses and wagons, for if we do we are not following natural laws, but are wasting our money and our efforts.

You are no doubt aware that the rural motor express is even now ahead of highway development, for it is operating in every state and every community within our states, and its influence is being felt by the farmers in increased production and bigger profits, and by the consumer through larger supplies and ultimately lower costs.

Born With the War

The rural motor express had its birth with the war, coming up in a time of need, when the world was calling for food, and when we were paying a price that was staggering.

Hon. John M. Baer, of North Dakota, in a speech in the United States House of Representatives, stated:—

"A new and scientific method of marketing is a problem that surpasses every other economic movement in its importance. Every plan to obtain for the farmer a greater share of what he produces, and at the same time to reduce the cost of living for the consumer, demands the immediate attention and earnest consideration of every patriotic citizen."

Mayor Shank, of Indianapolis, recently went to Grand Rapids and bought several carloads of potatoes at 50c. per

*Paper read May 22nd, 1919, at the Canadian Good Roads Congress, Quebec.