

it is only possible in the short space allotted to express his thoughts.

With regard to material Mr. Allen touched upon the long-lived character of concrete-arch bridges, some of which were constructed in France nearly fifty years ago and are still in good condition. As an initial step in any highway improvement the speaker said "it therefore seems essential in carrying out any general or special highway improvement work to first adopt some general plan of handling the work projected" and to aid in this he advocated a systematic survey of all the existing bridges and important culverts in the municipality. Such a survey should give attention to the following points: a systematic survey of all bridges and important culverts in the municipality with regard to their name location, construction, character of foundation conditions, present condition, when last painted or repaired; second, the classification should be made of the bridges based on the amount and character of the traffic. This information should be included in a general report to the council of the municipality with recommendations.

With regard to construction proper, Mr. Allen thought it advisable at times to put down a reinforced concrete floor slab which would vary in thickness from 5 to 8 inches at the crown to 4½ to 6 inches at the edge. The addition to the concrete mixture for bridge floors of a small percentage of high-calcium hydrated lime would notably increase its density and durability. In long-span bridges he also recommended spreading on the finished floor surface a good covering of gravel, which in winter time would serve to hold the snow better than a smooth surface and in addition it would protect the concrete from excessive wear. In concluding Mr. Allen recommended that a bridge plate bearing the name of the bridge should be placed on each right hand post of the bridge. They are made of bronze and would cost \$5.00 a pair. Such a system has been adopted in Hastings County.

In a discussion on this subject, Frank Barber, C.E., Toronto, Ont., gave some valuable suggestions without monopolizing time with superfluous language. Following are a few of his suggestions:

It is cheaper to clear away the clay, sand and gravel so the stream at low water will wash both sides of the abutments. This is cheaper than widening the span to accommodate water in time of freshets.

It is not consistent to have a 16-foot roadway on a bridge with a 14-foot approach. It would be better to have the approach a little wider than the roadway. For some reason teamsters do not care to pass on a 16-foot roadway, therefore, it would be desirable to have a 14-foot

roadway for one-way traffic and an 18-foot roadway where traffic is to be carried on both ways at the same time.

In the case of cuts and fills the slope should not be steeper than 1½ to 1. Anything less than this is uncouth in railroad construction work and unsatisfactory in general highway construction. It might be advantageous to have the slopes 3 to 1 in some cases.

It is often advisable to put old sods on the slope as this will more effectively stand the strain of heavy rain and freshets. The cost is generally about 9 cents per square yard.

The road laws of the Province of Quebec were explained to the Convention by D. Michaud, Deputy Minister of Roads, Quebec City, P.Q. Out of 45,000 miles of roads in the Province of Quebec 15,000 miles of earth roads are regularly and systematically maintained under control of the roads department. The road department owns 58 macadamizing plants, which it rents or lends to the municipalities. It also owns such machinery as rollers, traction engines, road graders, cranes, shovels, etc. 143 municipalities own their own plants. The good road law of 1912 authorized the expenditure of \$10,000,000 which was to be procured by the Government but in the last session of the Legislature the sum was raised to \$15,000,000. A large amount of work is being done along the line of good roads construction in Quebec and Mr. Michaud said that the people were satisfied with it.

MAINTENANCE.

The Convention listened with interest to Major W. W. Crosby, C.E., Baltimore, Md., in his discussion of "Dust Prevention." "Road dust prevention begins with the construction of the road crust by securing proper road metal, by providing proper drainage and making the firmest angular bond that the metal is capable of in the macadam. There is no one best material and no one best method for dust prevention."

Major Crosby then went into a discussion of different materials used for laying dust. Sea water, said the speaker, has some value on account of the salts contained in it, but they are not permanent or powerful enough and they are soluble and soon wash away. A concentrated sulphate liquor is used quite extensively but it is also soluble. Bituminous materials are most effective in dust prevention and in the selection of any materials it is well to remember that the asphaltic oils are superior to paraffin preparations.

The Convention regretted the absence on account of illness of W. A. McLean, President of the Association.

The election of officers for the ensuing year resulted in the selection of B. Michaud, Deputy Minister of Roads for Quebec, as President. G. A. McNamee, Montreal, was chosen as Secretary-Treasurer.

War Stamps.

Re one cent war tax on letters and post cards mailed in Canada for delivery in Canada, United States or Mexico, and on letters mailed in Canada for delivery in the United Kingdom and British possessions generally and wherever the two cent rate applies.

A war tax of one cent has been imposed on each letter and postcard mailed in Canada for delivery in Canada, the United States or Mexico, and on each letter mailed in Canada for delivery in the United Kingdom and British Possessions generally, and wherever the two cent rate applies, to become effective on and from April 15, 1915.

This War Tax is to be prepaid by the senders by means of a War Stamp for sale by Postmasters and other postage stamp vendors.

Wherever possible, stamps on which the words "War Tax" have been printed should be used for prepayment of the War Tax, but should ordinary postage stamps be used for this purpose, they will be accepted.

This War Stamp or additional Stamp for war purposes should be affixed to the upper right hand portion of the address side of the envelope or post card, close to the regular postage so that it may be readily cancelled at the same time as the postage.

In the event of failure on the part of the sender through oversight or negligence to prepay the war tax on each letter or postcard above specified, such a letter or postcard will be sent immediately to the nearest Branch Dead Letter Office.

It is essential that postage on all classes of mail matter should be prepaid by means of ordinary postage stamps. The War Tax stamp will not be accepted in any case for the prepayment of postage.

All the defects in factory butter and cheese are not due to carelessness or bad management at the factory. Make conditions right on the farm, and then the factoryman and maker will not have the same opportunities to lay all the blame on the milk producer.

Somebody, fond of statistics, has figured out that one large newspaper in New York city uses in one year all the spruce grown on 16,000 acres of land as spruce naturally grows.

Toronto, Montreal, Buffalo, and Other Leading Markets.

Toronto.

Receipts at the Union Stock-yards, West Toronto, on Monday, March 29, numbered 118 cars, comprising 1,829 cattle, 961 hogs, 127 sheep and lambs, 139 calves, and 529 fed-horses in transit. Cattle were steady to strong. Choice steers, \$7.80 to \$8.15; choice butchers' steers and heifers, \$7.25 to \$7.50; good, \$7 to \$7.25; medium, \$6.60 to \$6.85; common, \$6.25 to \$6.50; cows, \$3.75 to \$6.50; bulls, \$5 to \$6.50; feeders, \$6 to \$6.50; stockers, \$5 to \$6; milkers, not many on sale, at \$50 to \$80; calves, \$5 to \$11. Yearling lambs, \$9 to \$12, one deck of 97, weighing 103 lbs., selling at latter price; light ewes, \$7 to \$8; rams and heavy ewes, \$6 to \$6.75. Hogs, \$8.75 weighed off cars, and \$8.50 fed and watered.

REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards for the past week were:

	City.	Union.	Total.
Cars	29	302	331
Cattle	351	3,683	4,034
Hogs	564	9,384	9,948
Sheep	208	325	533
Calves	48	692	740
Horses	75	81	156

The total receipts of live stock at the two markets for the corresponding week of 1914 were:

	City.	Union.	Total.
Cars	5	293	298
Cattle	58	3,724	3,782
Hogs	134	7,693	7,827
Sheep	—	1,171	1,171
Calves	—	462	462
Horses	47	226	273

The combined receipts of live stock at the two markets for the past week show an increase of 33 carloads, 252 cattle, 2,121 hogs, 278 calves; but a decrease of 638 sheep and lambs, and 117 horses, compared with the corresponding week of 1914.

Receipts of live stock for the past week were moderate in nearly all the different classes, and as a consequence prices were steady and firm. This week, other years, would have seen a large number of cattle that had been prepared for what used to be known as the Easter market. This year, however, there were few cattle offered for the Easter trade, but there was enough, seemingly, to supply the demand. The bulk of this class was bought for the Quebec and Montreal trade. There was a fair demand for stockers and feeders, all offerings being taken at steady to firm prices. Milksters and springers, of which there was a moderate supply, sold at about the same values as given in our last letter. Veal-calf deliveries continuing to be light, caused prices to remain firm. Sheep and lambs seem to have reached the limit of high values. Hog prices have been firm, although the packers tried to break values, but did not succeed.

Butchers' Cattle.—Choice heavy steers and heifers of Easter quality sold at \$8 to \$8.25; extra choice butchers' steers, \$7.50 to \$7.75; good to choice, \$7 to \$7.50; medium, \$6.60 to \$6.85; common, \$6.25 to \$6.50; cows, \$3.75 to \$6.50; bulls, \$5.25 to \$7.75, and one bull sold at \$8.

Stockers and Feeders.—Stockers, 500 to 600 lbs. each, sold at \$5 to \$5.60; feeders, 700 to 900 lbs., sold at \$6.40 to \$6.60.

Milkers and Springers.—Choice milkers and forward springers sold from \$70 up to \$90, and \$95 was paid for two or three; common and medium quality sold at \$45 to \$65.

Veal Calves.—Choice calves sold at \$10 to \$11.50; good, \$8 to \$9.50; medium, \$7.50 to \$8; common, \$6 to \$7; Eastern, grass calves, \$4 to \$5.

Sheep and Lambs.—Light ewes, \$7 to \$8; heavy ewes and rams, \$5.50 to \$6; yearling lambs sold at \$8.50 to \$11.50. Spring lambs, weighing 60 to 80 lbs. each, sold at \$10 to \$13 each.

Hogs.—Prices have varied slightly, but closed as follows: Selects, fed and watered, \$8.60 to \$8.65, and \$8.35 to \$8.40 f. o. b.

COUNTRY PRODUCE.

Butter.—Prices are much firmer, having advanced two cents per lb. Creamery pound squares, 35c. to 37c.; creamery solids, 33c. to 35c.

Eggs.—New-laid eggs are plentiful, having declined again this week, and are now selling at 20c. to 21c. per dozen by the case.

Cheese.—New, large, 18½c.; twins, 19½c. to 19½c.

Honey.—Extracted, 12c.; comb, \$2.50 to \$3 per dozen sections.

Potatoes.—Per bag, 45c. for car lots of Ontarios, track, Toronto; New Brunswick, 52½c., track, Toronto.

Beans.—Hand-picked, per bushel, \$2.60; primes, \$3.30.

Poultry.—Turkeys, per lb., 16c. to 18c.; ducks, 15c.; hens, 13c. to 15c.; chickens, live weight, 13c. to 15c.; squabs, per dozen, \$4; geese, 13c.

HIDES AND SKINS.

City hides, flat 17c.; country hides, cured, 15½c. to 18½c.; country hides, part cured, 15c. to 16c.; calf skins, per lb., 18c.; kip skins, per lb., 16c.; sheep skins, \$2 to \$2.50; horse hair, per lb., 38c. to 40c.; horse hides, No. 1, \$3.50 to \$4.50; wool, unwashed, coarse, 22c.; wool, unwashed, fine, 26c.; wool, washed, coarse, 30c.; wool, washed, fine, 36c.; rejections and odds, washed, 25c.; lamb skins and odds, \$1.25 to \$1.75; tallow, No. 1, per lb., 5½c. to 7c.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, \$1.12 to \$1.15; Manitoba, No. 1 northern, \$1.41; No. 2 northern, \$1.60; No. 3 northern, \$1.57, track, bay points.

Oats.—Ontario, No. 2 white, new, 60c. to 62c., outside. Manitoba oats, No. 2, 70c.; No. 3, 68c., lake ports.

Corn.—American, No. 3 yellow, 81½c., track, Toronto.

Rye.—Outside, \$1.15 to \$1.17.

Peas.—No. 2, \$2 to \$2.05, outside.

Barley.—For malting, 79c. to 82c., outside.

Buckwheat.—No. 2, 82c. to 83c., outside.

Rolled Oats.—Per bag of 90 lbs., \$3.40.

Flour.—Manitoba flour.—Prices at Toronto were: First patents, \$7.70; second patents, \$7.20; in cotton, 10c. more; strong bakers', \$7; Ontario, 90-per-cent, winter-wheat patents, \$5.95 to \$6.05, Montreal.

HAY AND MILFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$18 to \$20; No. 2, \$17 to \$17.50 per ton.

Bran.—Manitoba, \$26 to \$27 in bags, track, Toronto; shorts, \$28 to \$29; middlings, \$33 to \$34.

Straw.—Baled, car lots, track, Toronto, \$8 to \$8.50.

TORONTO SEED MARKET.

The following are the prices quoted by Toronto seedsmen, to the trade, for re-cleaned seed: Red clover No. 1, \$21 to \$22 per cwt.; red clover No. 2, \$19 to \$19.50 per cwt.; red clover No. 3, \$18 per cwt.; alsike clover No. 1, \$19 to \$20 per cwt.; alsike clover No. 2, \$17.50 to \$18.50 per cwt.; alsike clover No. 3, \$16 per cwt.; alfalfa clover No. 1, \$19 to \$22 per cwt.; alfalfa clover No. 2, \$18 to \$18.50 per cwt.; timothy clover No. 3, \$17.50 per cwt.; timothy No. 1, \$11 to \$11.50 per cwt.; timothy No. 2, \$9.50 to \$9.75 per cwt.; timothy No. 3, \$8.75 per cwt.

FRUITS AND VEGETABLES.

Hot-house rhubarb was scarce last week, and sold at from \$1 to \$1.25 per dozen. There were three cars of Florida tomatoes came on the market, and sold at \$4 to \$4.50 per case.

Apples—Spys, \$4.50 to \$5 per barrel; Baldwins, \$3.50 to \$3.75 per barrel; Rus-

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