

Stable Plan of E. J. Pearson's Barn.

the best macadam principle, and a large force of men are kept almost constantly employed in keeping it in order. Such a road, if used by horse-drawn vehicles, would get out of order very slowly, even though the traffic were heavy and constant. This driveway, however, is the main driveway for the motorist, and only those who pass over it occasionally could have any conception of the amount of repairing that has to be done. A few days after a section is put in first-class order, almost as smooth and as hard as pavement, it commences to show wear. The fine, crushed-stone finish is sucked up, leaving the broken stone bare. Soon these commence to loosen and be knocked about, and before long the road is more like a cobblestone pavement than a macadam road, with this difference, that it is strewn with pieces of broken stone from the size of a hen's egg upwards. This is more especially true in the outer districts, where drivers have little fear of detection by the police, and consequently run at high speed. Such a stretch extends alongside of Dow's Lake, approaching the Experimental Farm from the city. One month after this bit of the driveway is put in first-class repair, it becomes unfit to drive over with an iron-tired vehicle, and a bicyclist has to pick his way very carefully to avoid being thrown from his wheel, as the surface is strewn with loose, angular pieces of stone. At first sight, one may incline to the view that the wide, soft tires of a motor car would roll dry road and improve it, and if these vehicles were drawn by horses they would do little or no damage to a well-made road-bed, but it must be remembered that the machine must be pushed along by the tires gripping the surface of the road, and that, under the pressure of a twenty, thirty or forty horse-power motor. The higher the speed, the greater becomes the pressure backwards on the surface of the road. In addition, the yielding of the tire causes a suction which lifts the fine material, to be blown aside, leaving the coarser material bare and ready to be pushed out of place. As soon as one stone is loosened, the next one loses its support; the surface is now broken, and disintegration immediately sets in. No other vehicle that travels the roads operates so destructively upon the road surface.

No doubt much of the damage to the roads by motor cars would be overcome if the dust were permanently laid. The dust nuisance would also be thus removed. A recent visit to New York, Washington and Philadelphia proved to me that this is the case, and that the thing is reasonably possible. The driveways in and near those cities are almost all oiled with a dressing known as tarva. This material is a rather thick, tarry oil

that is poured on the road and spread with large brushes. In some cases it is applied with an ordinary watering cart. Macadam roads so treated remain for a long time smooth, firm and moist, thus maintaining an unbroken surface. It also sheds the water, which is so destructive to the ordinary country road.

This season a number of stretches of the Ottawa driveway are being treated with tarva, and much good is expected to result. After the tarva is applied, a thin coating of coarse sand is put on. This rolls into the tarva, forming a firm, enduring, wearing surface.

Co-operative effort to keep the roads in order is what is needed. The automobile has come to stay, because it is highly useful. Perhaps a frontage tax, if properly applied, would help, but a substantial auto tax would be more to the point, and more justifiable. An annual tax of less than ten dollars is ridiculously small, while fifty dollars a year should not be considered excessive for cars propelled by motors of forty horse-power and upwards.

Ottawa.

J. B. SPENCER.

Considering Tollgates.

Editor "The Farmer's Advocate":

This auto question has of late taken our consideration, and a remedy seems far off. Our council believe in a special tax for passing through our township, or each township, and the speed limit should be reduced. They run at about 25 to 30 miles, and sweep the dust from the road. In our township we are strongly of the opinion that we may have to go back to the old plan of tollgate, and charge a fee for each auto, and a system of 'phones could force them to a reasonable speed limit. The only hope to remedy the evil is for all municipalities to take this up, and be ready for the next time when the Provincial Government goes to the country.

Ontario Co., Ont.

W. W. SPARKS.

Increase License by \$25.

Editor "The Farmer's Advocate":

While motoring is a luxury, we must not lose sight of the fact that automobiles are here to stay, so an increase of license fee suggests itself. I would say an increase of \$25, the same to be collected in the usual way, and the proceeds to be devoted to road maintenance. This gives the autoist an opportunity to contribute to the keeping up of good roads.

As to damage to crops from dust, I fear recompensing for this would cause endless litigation. I would say reduce the speed limit to, say, ten miles an hour when roads are dusty. By reducing the cause, you reduce the effect. Speed, to my mind, is the cause of all the trouble. Another point in favor of reducing the speed is you put the "dare-d—l" out of business. He is a menace to life and property. I have met a great number of very considerate motorists, but, unfortunately, on the same road we meet the very inconsiderate, as well.

Westworth Co., Ont.

JOHN YOUNG.

Fall Wheat Manuring.

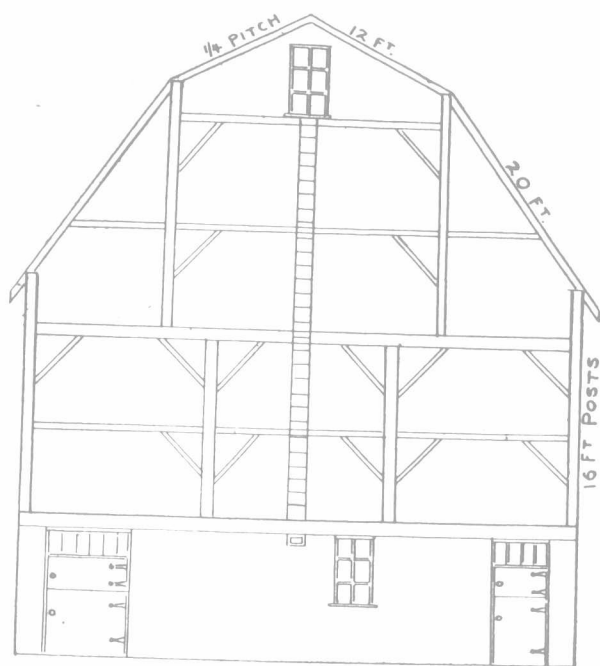
Jas. B. Thompson, Middlesex Co., Ont., relates an experience worth noting in methods of manuring fall wheat following oats last year. After taking off the oat crop, some six manure-spreader loads per acre of barnyard manure were applied on a portion of the field, and plowed down. The supply of manure only partly covered the field, but the pile was replenished later on, and after the ground was frozen in December, the rest of the field was top-dressed on the new growth of wheat at the same rate as the other, six loads per acre. In all other respects the cultivation was similar, but there was a surprising difference in the results disclosed by the recent harvest. The portion where the manure was plowed down early gave a fine crop of from 30 to 35 bushels per acre, while that from the later top-dressing would hardly exceed 10 bushels per acre. Mr. Thompson does not venture an explanation of so marked a difference in the yields.

An Oxford Co. Barn Plan.

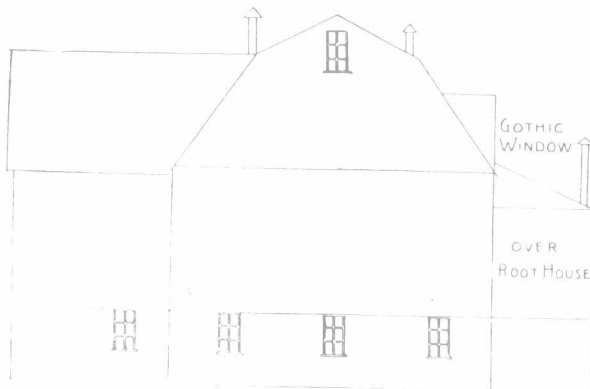
Editor "The Farmer's Advocate":

I am sending you, under separate cover, the plan I used for my barn. There is a cupola on the roof that does not appear on the plan, with glass windows that open and close with the wind. I find the arrangement very convenient. I have no sketch of the front. The gangway is built of cement, and the side walls rise two feet above the earth so as to prevent an accident, and are topped on by a projecting cap. The barn is painted red, with white trimmings, and presents a very attractive appearance.

E. J. PEARSON.



End Frame of E. J. Pearson's Barn.



Side Elevation of Mr. Pearson's Barn.



Profile Plan of Part of Cow Stable.