

dust. Oil appears to be the only remedy. People in the city, who live on much-used thoroughfares, are compelled, for their own convenience, to pay a frontage tax, to water the streets and keep down the dust. Would it not be to the interests of the farmer whose farm is along the main road, and who suffers from the dust evil, to pay a small frontage tax to help cover the cost of purchasing and applying the oil? If he were willing to do this, I believe the auto men would not object to increase in license fees to help the good work along. Up till 1911, auto licenses cost four dollars per year, and renewals two dollars. But now renewals cost the same as the original license. You point out that at present the total taxes on autos amount in Ontario to only about \$25,000 per year; but, with the increase of the number of motors in use, this will soon be doubled and tripled. I believe your suggestion for a graded system of fees is right. The man with a fifteen or twenty horse-power car should not be compelled to pay as much as the man with a fifty horse-power machine. The New York State tax of from five to fifty dollars, according to horse-power, is a good one. I would say that cars of twenty horse-power and under should pay a tax of, say, six dollars per year; up to thirty horse-power, ten dollars; up to forty horse-power, fifteen dollars; and greater horse-power than this, twenty-five dollars, per annum. This money, minus the cost of collection and supervision by the Ontario Government, should be handed over to the county councils, and applied to the upkeep and oiling of main highways where the dust has become a pronounced evil. But the man who owns a valuable farm on the main highway has as much right to help pay for his own convenience and the protection of his fields from dust as has the man who resides on a main street of a city, and who does not own even a horse and buggy, but who pays from three to four cents a foot for street-watering.

In closing, I would like to say that, as a rule, I have found the automobile men to be considerate of other users of the road, but occasionally a rattle-brained driver comes along who drives at top speed, and is in danger to himself and everybody else. The farmers may take it for granted that such a man as this will find no sympathy amongst motorists when he gets into trouble. The man who values his car and the lives and property of the people he meets on the road will be content to go along at a moderate pace and keep within the law.

ED. J. CARTY.

[Note.—An experienced and capable journalist, Mr. Carty naturally possesses a good stock of common sense, which he uses in running his motor. The lack of it on the part of so many men who run these machines has made them an unmitigated nuisance on the roads, and this is the real reason of country antipathy, not a fear that the price of horses will be reduced, for horses command a more ready sale, at higher prices than before the advent of the auto. The proof of the damage done the roads is the roads themselves where the motors are most used.—Editor.]

How the Auto Destroys the Road.

Editor "The Farmer's Advocate":

I would like to draw the attention of your numerous readers to a subject that I think is of considerable interest to farmers, but, on account of its newness, have not given it the serious thought and attention it deserves. That is, the effect the new traction service is having on the principal thoroughfares, in the shape of the automobile traffic. In other countries the same effect has been noted; that is, that, wherever the auto appears in great numbers, the effect on the roadbeds is at once to put them out of condition. We have an excellent exhibit on the road leading from London to Lambeth. I have used that road for upwards of fifty years, and in all my experience I have never known that road to be in such a dangerous condition as it is at this moment, and I am inclined to think that the whole or greater portion of the cause of this condition lies in the fact that never in the history of that road has there been so many automobiles using it as during the season of 1911.

Let any person watch the course of the automobilist, and it will be found that they always keep in the regular tread, never taking the side or a new tread to sort of even up or spread the wear on the general surface. This, I assume, is a matter of habit, especially at night, as he does not want to take any chances on the side of the road.

The autoist will not admit that his wheels will injure a road, and, to the unthinking individual, it is quite natural to imagine that a soft tread-wheel, like a cat's paw, would never

injure a road surface. But it does, and the reason is not far to find. The tendency is to create a vacuum by that portion of the tire surface touching the earth or roadbed. To get a fair idea of what that means, let a wagon stand on, say, a pavement, alongside of an auto on the same pavement, then compare the amount of tire surface on the two types of wheels that touch the surface of the pavement. It will be readily seen that only a fraction of the steel tire touches the pavement, while a very large area of the rubber tire has a hand-like grasp of the pavement surface; in the one case there is not a particle of chance for the creation of a vacuum, while in the other (the rubber) vacuum conditions are almost perfect; hence, the two actions are wonderfully different. In the case of the large-diameter, slow-rolling steel tire, the natural tendency is to roll down the road as would the action of a land roller the lumps in a field. The contrary is the effect of the rapid-striking, small-diameter rubber tire, which, by creating a vacuum, lifts up, as does a suction machine of any kind; hence we see such enormous clouds of dust every time one of those 30 to 50-mile-an-hour machines passes by. Watch the action of a one-horse carriage on a dusty roadway, when the wind is blowing across the trail, and it will be noted that the greater portion of the dust comes from the action of the feet of the horse, very little coming from the four wheels. Compare that with what happens from the four wheels of the auto. Here you have a splendid exhibit of the lifting-up process—a natural tendency to disintegrate or destroy and scatter the particles that go towards road formation. Another evil is the smallness of the wheel. Every depression that exists in a roadbed will suffer more from the shock it receives from a rapid-driven small-wheel than from the slower-moving large one. To illustrate this, lift a brick out of a pavement, get into any auto, and let the usually rapid running take place, and note the effect on the machine, also the position of the tire when it strikes the depression. Now try a wagon or carriage over the same depression, and note the mechanical effect. Hence, the city pavement suffers equally. To such an extent has the dirt and dust nuisance become in the city that, notwithstanding all the sprinkling and scraping and sweeping, housewives have just as much dusting to do as five years ago, or when the auto was practically an unknown quantity.

With these facts before the farmer, I think the only remedy is to adjust the tax in a more equitable way, or raise the auto license to a much higher figure, and graded so that the man with the heavy car would pay in proportion to his ability to destroy; that is, a 4, 5 or 7 passenger outfit will do more damage than a runabout or a 2-passenger machine. And, as some counties in the Province have practically no traffic from this class of road destroyer, I think the Government should allow the license to be issued by the county. In this way, the sections most used would get a greater revenue, so that a better return could be made to the highway. Possibly the Government might continue to issue the license, and, by checking the locality, give back to each county a share of the income, in proportion to its number of licenses. The auto has come to stay—there can be no question about that—and when we know that it is injurious to a roadbed, I think it is but fair that that set of people should be compelled to materially assist in the cost of road maintenance.

London, Ont.

JOHN M. PARSONS.

The Automobile License.

Editor "The Farmer's Advocate":

In the past, I have been surprised at the very mild attitude displayed against the "devil wagon" (auto) by "The Farmer's Advocate," but your eyes have seen the menace they are to agriculture. The editorial, in your issue of July 27th, is freighted with facts (more could be stated), and it is to be hoped you can bring about some legislation that will afford farmers relief.

People who are not in close touch with all classes of farmers have a very vague idea of the mischief these autos work, especially in the rural parts. Farmers' daughters, who used to play an important part in the business of the farm, are now driven from the roads. Farmers' wives, who need a change and a pleasure drive as much as anybody, are now deprived of that luxury.

As a rule, those who own autos are people of means (they ought to be, anyway), and if the unvarnished facts were placed before them, I believe they would be willing to pay. I believe each machine ought to pay a flat rate of \$5.00, and \$1.00 for each horse-power as a yearly license for running on our country roads. The side-roads and other lines would be immune, and the farmer's family could drive with greater safety. Then give the municipal council authority to grant a license to run on the roads under its control. In regard to the dust nuisance, farmers should be encouraged to set out shade trees along the roadside. They answer for a dual purpose—gather dust, and keep the roads moist and dust-proof. "The Farmer's Advocate" can do no better work than to bring about some measure of relief to the farmers from the auto nuisance, and it is my sincere wish that its voice may ever grow stronger in its cheerful words of encouragement in times of trouble, by wise counsel, its lofty aim, and true constructive character.

York Co., Ont.

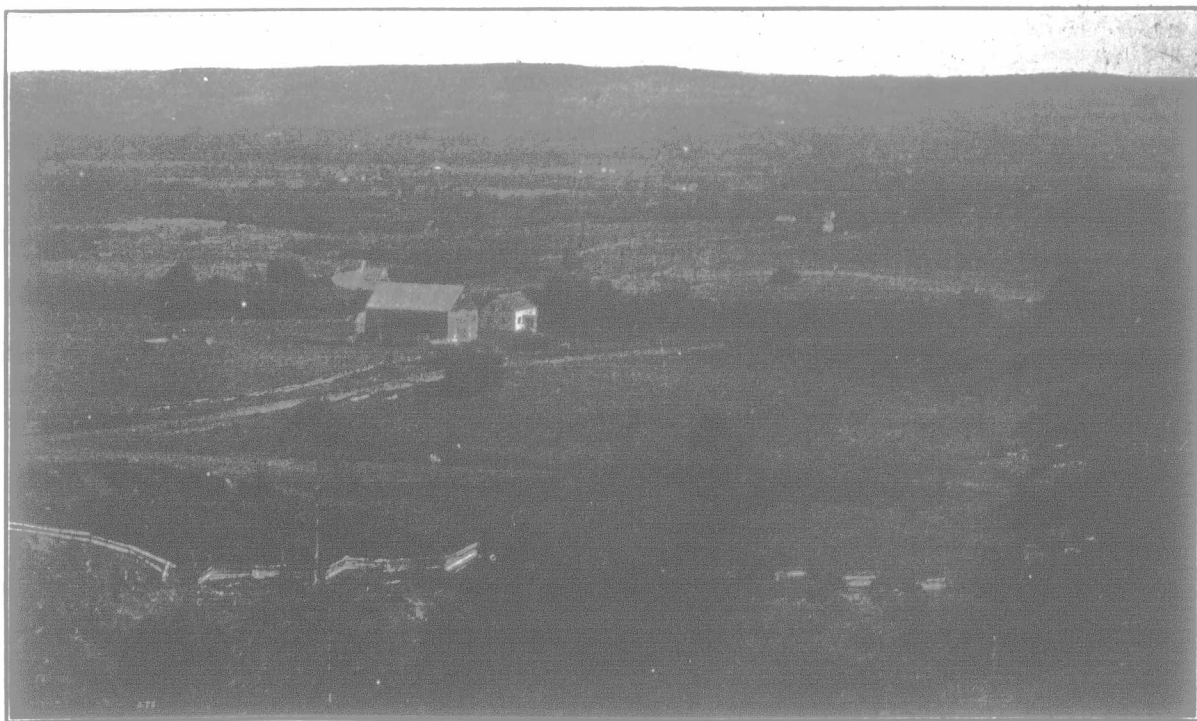
W. HENRY.

An Advocate of the Plow.

Editor "The Farmer's Advocate":

I have read with a great deal of interest the various articles published in regard to after-harvest cultivation. While my method is to a great extent similar to some mentioned in the different letters, I will give it in brief. Like Jos. Douglas and others, I favor plowing the ground as soon after harvest as possible. If the ground is soft enough, the gang plow is used, and the ground is plowed to a depth of about four inches. If the land is dry and inclined to be hard, the single plow is used. I use a wide-bottom plow that will cut a wide furrow and still only turn a four or five inch furrow. The ground, after plowing, is harrowed down, and then the spring-tooth cultivator or disk harrow is used. I use both, according to the land and what weeds are in it, but for general work I think I prefer the cultivator.

If the land was carefully plowed, every thistle and other weed should be cut off, and the harrow and cultivator will drag them out on top. The land is kept well worked for a month, and then it is ready to be plowed again. If the field has any low spots, or is usually a little wet in the spring, it is not plowed in the regular way, but is ridged up. One correspondent calls it back-plowing; others call it cut-and-covering. Call it what you like, it certainly is a good method of fall plowing. With the land all in ridges, the frost has a better chance at it, and at the weeds too, and in the spring it dries off quickly, and can be worked several days in advance of land



Nova Scotia Fruit Valleys.

Back of Berwick, King's County.