

Road-Building to be Taught in the Common Country Schools.

Extract from an Address of Gen. Roy Stone, Head of the Government Department of Road Enquiry, Delivered Before the Teachers' Convention, held in Buffalo, N. Y., last Month.

We come to you for help in a work which appeals to teachers of America from a standpoint of every interest in the land—moral, intellectual and social, as well as material. A Southern editor states it perfectly when he says: "Every mile of good road built in the country will increase values, improve morals, elevate citizenship, stimulate trade, beautify the country, promote education, raise the standard of religion, and add to the wealth, health and happiness of the people." We do not come to you, however, for help till we have put our own shoulders to the wheel. Four years ago a few of us organized, at Chicago, the National League, for Good Roads, and spent \$10,000 in hard-raised money to begin our campaign. Before that was gone we had gained the ear of Congress, and we have had a little national aid for our work ever since.

I will not waste your time nor mine in arguing for good roads; what you do not know about good roads is not worth telling. I will come at once to the question, which I trust is on all your lips: "How can we help?" There are three ways in which you can help individually.

1. You can "preach the gospel of Good Roads," and carry the glad tidings that already in America, and in many places in America, and in the most unpromising places, that gospel has borne fruit, and the people are even now enjoying its blessings. If any of you will take up this work we can furnish you with chapter and verse for your sermons, and applications and illustrations without number. I will give you one topic to carry home with you.

The cost of bad roads to the United States has been variously estimated by competent authorities, and the lowest estimate of the bad roads tax, that of Prof. Latta, of Perdue University, collated from the certified experience of practical farmers in forty counties of Indiana, amounts to seventy-seven cents per acre annually, or fifty dollars per square mile of farm area, and there are one million square miles of farm area in the United States; five hundred million dollars, or three times the cost of all the common schools in the country utterly wasted. What could not be done for education if this vast sum could be saved.

2. Not only can you preach Good Roads, but you can teach a little road-building in all your schools. No knowledge would be more valuable; it would be taken home from school and discussed in every family. It is a practical concern of everyday life, and will interest parents as well as children, women as well as men; attention will be called to every defect in the location, construction and care of the roads directly about you. You will need no text books, for no high-class technical

knowledge is necessary to teach the rudiments of road construction and repair. We can furnish you from Washington with our printed circulars, giving all the information you will need to impart; and if any of your pupils desire to go beyond the stage of primary instruction in this matter it will not be long before the higher schools, and especially the agricultural colleges, will be teaching road building in all its higher departments.

3. But better than teaching and preaching, you can do much to actually improve the roads of the country. The great need of our country roads is daily care. For want of that care a trifling depression, which a shoveful of gravel would fill, fills with water instead, and deepens, widens and lengthens with every wheel that dips into it, till it becomes an impassable mud-hole. For want of that care, when a rain-storm comes, a little stream of water which the stroke of a hoe would turn aside, follows the wagon-track down a long incline, grows into a torrent, and makes a dangerous gully or a stony hill face; for want of care and a little work loose stones accumulate in the wagon way, and stay there till the annual season of road repair, while fast ones grow out of the ground apace for want of a hammer stroke to knock off the first point that shows; weeds and rubbish choke the ditches and sluice-ways, and costly wash-outs occur, or standing water soaks the road-bed and turns it into a quagmire.

In the absence of care every defect grows by geometrical progression; the worse it gets the faster it grows. Forty million dollars we spend every year on road repairs, and make the road no better. We roll the great stone up the mountain with forty million days' work, and then we let it go to the bottom, to be rolled up again next year. What is the cure for this state of things? The trouble itself is nothing new. Every thinking farmer knows it of old, and has puzzled his brain for a remedy. The daily care of all the roads by paid laborers would be a tax absolutely unbearable; the travel to and fro to do the little work required would cost ten times as much as the work itself. What, then, can we do? When you have interested parents in your district in the subject of road improvement, and taught your scholars something of the proper methods of carrying it on, why not take advantage of the fact that your roads are travelled twice a day by boys old enough to take the ordinary daily care of them if they have the means to do it? Why not organize your own road leagues among the older boys, and persuade your township road authorities to supply a few light tools, to be kept at the school house, and carried home when needed for road repairs, or used at recess on the roads near the school-house? And why not persuade these authorities to offer a prize for that school district which does the best work in this direction? The effect of daily care would show so promptly in preventing the deterioration of the roads

after each annual season of repairs as to offer great encouragement for the general betterment of the highways, and by these means you will not only be conferring an instant and visible benefit upon every resident in your district, but you will be training up a generation of better road builders for the future.

So much you can do individually. Collectively, if your powerful organization will interest itself in this subject, make it one of its active departments in connection with rural schools, put some of your best workers at the head of it, and, finally, co-operate heartily with all the State and local organizations, you may have the satisfaction of helping to raise country life in America to a level with that of the old world, where good roads prevail.—*Good Roads.*

A Successful Institution.

The Brockville *Times* has been investigating the working of the House of Industry built by the county council of Leeds and Grenville, at Athens, which was opened last year—and found thirty-three regular inmates; seventeen women and sixteen men.

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During the summer months the rising bell rings at five o'clock and for breakfast at six, but in winter they rise and breakfast an hour later. Dinner at noonday, tea at six, and all in bed by nine o'clock,—some much earlier. For breakfast they get bread and butter, porridge and milk, and tea; for dinner—potatoes, meat (beef or pork), soup, vegetables, rice or bread pudding, and bread, but no pies or pastry; while for tea they are given bread and butter, tea, hot biscuits, or johnnycake once a week, and occasionally a hash of meat and potatoes. Sugar is a luxury unknown to the great majority, and butter is given only at breakfast and tea. Granite-ware is the prevailing style of china.

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The House of Industry is not alone an honorable monument to the Christian charity of Leeds and Grenville. It is a monument no less to the sound, practical, good sense and business capacity of the counties council in dealing with the problem of relief for the helpless derelicts of the community who have been left stranded by age and poverty. In thus dealing with the problem the United Counties of Leeds and Grenville stand among the first counties of Ontario,—and of the Dominion,—in affording an object lesson of how best to give permanent relief to the helpless, aged, infirm and poor in a way that is at once the most effective and the most economical in its results.

The road system of Ohio is one admirably adapted to the end proposed; the county paying a part of the cost and the property owners, within a reasonable distance on either side, contributing the remainder.