GOOD ROADS NOTES.

A Farmer's Views.

THERE is no class has a deeper interest in good roads than farmers, and the stranger estimates the progressive character of a community by the condition of the public highways. The time is past when a mere track through the woods satisfies the farmer, and good roads is the demand of the period. The good road convention lately held at Omaha was indicative of the increased interest in this question, and the number attending from distant States was proof of the importance of securing better roads. The great question was how to build good roads and have them permanent. Many of the Eastern men argued for macadam or broken stone for a covering for the highways, but some of the Western men thought that very little of the Western limestone could resist the severe frost of winter.

In some States the prisoners and convicts were put to work to prepare the broken stone for roads; no stone applied that would not pass through a ring of a given size. This secured a good uniform road bed. Some of the principal roads in the republic were built in this way, and the great national road connecting Washington, D. C., with St. Louis, Mo., is a standing evidence of the importance of building first-class roads to invite the attention of settlers. The Romans always built first-class roads to secure their distant colonies, and the Incas of Peru built roads extending many hundreds of miles that exist to this day. But none of those nations had the intelligence and command of resources that the citizens of this republic have.

Farmers as a class have been the ardent advocates of the railroads and contributed largely to their construction, and those rich corporations ought to extend a helping hand to improve the common roads. There were various schemes agitated in that convention for improving our highways. One that called for notice was a steel or iron track suitable for an ordinary wagon to run on, and an ordinary team could haul four or five tons with ease. This was a flat piece of iron or steel about six inches wide with a slight flange on the edge, as there was a double track with just room for the team between; the cart or wagon once on could remain or pull off at any place, as there should be a double track for going or coming, but it struck the observer that all teams should travel at a uniform pace. It seemed that the general feeling among the members present was in favor of more efficient road laws; all road tax to be paid in cash. The roadbed once properly constructed and rounded up to secure drainage, a covering of a good article of gravel, if easily reached, was the cheapest and most desirable for our common roads.

Now is the time for action. You farmers who have nice carriages and spring wagons, etc., feel bad to haul them over the mud and mire that you have to pass over to your market towns, churches or places of amusement. Get together and secure legislation on this important movement. Here is a common interest where no political bias can enter.

I would suggest the agitation of the following reforms, to be secured by the farmers in aid of good roads, and demand consideration of them by your representatives:

First. Thorough change in our road system, and the payment of all road work in cash.

Second. The appointment or election of a county superintendent of roads. He should be a competent engineer, whose duty should be to pass over all roads in the county and leave instructions to see that the sides of the roads were kept clear of noxious weeds, and that all taxes were paid, all bridges kept in good repair, and no person permitted to deposit a ballot that had not paid his road tax. If the farmers once wake up to the importance of improving our highways they can accomplish all they desire. Take some of the leading roads, keep the road grader smoothing and rounding up the roads and cover a certain number of miles each year with broken stone or gravel, and you will soon have first-class roads to pass over.—Iowa Farmer.

The Good Roads Prospect.

The chief obstacle to the general use of the automobile in this country is the disgraceful lack of good roads. Such an event as the Paris-Bordeaux automobile race in France or the English excursion from London to Edinburgh and return would be impossible in this country, simply because we have not got 500 continuous miles of road fit for the automobile or for any other vehicle.

But the movement in favor of good roads which gained such reinforcement from the bicycle is being strengthened by the introduction of the automobile. A project has been started among a colony of wealthy summer residents of New Hampshire to improve a tourists' roadway of 500 miles from Boston to Dublin, N. H., thence up the Connecticut Valley, through the White Mountains, down to the Maine coast and back to Boston.

The disastrous failure of a recent attempt to travel by automobile from New York to Buffalo demonstrated the disgraceful condition of the ordinary roads in the Empire State. If the New England project results in giving us 500 continuous miles of good road it will be a valuable and much-needed object lesson.—New York World.

A College Girl Described.

A college girl is a girl that studies so hard all winter that her mother has to get up and get her breakfast all summer.—New York Press.

POPULAR SCIENCE.

A young Danish engineer has constructed a phonograph which will take telephone messages. It is much simpler than the Edison phonograph, and instead of a wax roller has a steel band from which the message can be wiped off after it has been delivered.

The practicability of using electric light for the forcing of vegetation is maintained by a writer in Science, who claims to have been quite successful in applying it for raising lilies. He finds that the arc light should not be used until the lily-buds are an inch long, and that it should then be passed through glass to screen out the ultra-violet rays. In his experiments a dark brown burn appeared on the plants under the naked light. The light was continued nightly for four months and the plants were taller and earlier in blossoming, but less robust and with shorter-lived flowers than those grown in the dark.

Those who speculate upon the inhabitants of other planets usually forget how slight a change of present conditions on earth would suffice to extinguish the forms of life we know. Mr. Lowell has suggested that the "canals" of Mars may be the stupendous works of beings akin to the human race, but an English astronomer points out that the force of gravity is only about a tenth as great as on earth, and that as a consequence of this must be a failure to retain the lighter gasses and probably even water. In a waterless world, under an atmosphere of nitrogen, argon and carbonic acid, life must be very different from anything we can imagine.

The sand dunes of the Gascony coast are stated by R. LeMang to occupy a belt four or five miles wide and 150 long, in which area they frequently rise to a height of 125 feet, and in one case reach 300 feet. The shifting sand has been that along the shore. Barren of vegetation, this has been blown about by every wind and has buried fields, forests and villages, and has caused disastrous inundations by blocking the mouths of the streams. The evil has been finally remedied by long experiment and nearly a century of systematic work. A gently sloping half artificial dyke runs along the beach, next to which is a strip a quarter of a mile or more wide, which has been covered with stunted firs and bushes, and behind this is a great artificial forest of firs and oaks, the whole effectually checking the sand invasion.

New Zealand is distinguished for its flightless birds. The Takahe, which was first captured in 1849, and of which the fourth and best specimen was taken two years ago, has now been described by Sir W. L. Buller as a handsome bird of the rail family, about as large as a goose, blue-breasted, having a heavy gait, and with a very noticeable beak in the form of a large equi-lateral triangle of pink horn, one angle being directed forward.' Its most remarkable characteristic is that it is absolutely unable to use its wings for flying. The first two specimens obtained of this flightless rail are in the British Museum, the third was purchased by the Dresden Museum for $500, and as much as $1500 has been offered for this fourth specimen.

The mystery of the "wabbling" of the earth's axis may be explained, in the opinion of Dr. J. Halm, a German astronomer, by assuming that the rotation of our planet is affected by changes in the magnetic influence of the sun. He publishes a comparison of observations on sun-spots and on the irregular motions of the north pole, which appears to show a coincidence between the two phenomena. During a maximum of sun-spots the magnetic influence of the sun seems to be greatest, and after the passage of such a maximum the disturbance of the earth's axis diminishes. The fact that the earth's poles of magnetism do not correspond in location with its geographical poles may, Doctor Halm suggests, indicate how the sun's disturbing action is applied. When the magnetism of our globe is most powerfully excited then the strain along its magnetic axis may cause a distortion of the figure of the earth, which becomes less as the strain diminishes.

Dickens's London.

As we jog along, or walk by turns, we come to Buckingham street, and looking up at Alfred Jingle's lodgings says a grateful word of Mr. Pickwick, says Kate Douglas Wiggin in the Atlantic. We tell each other that much of what we know of London and England, when we come to it, seems to have been learned from Dickens.

Deny him the right to sit among the elect, if you will; talk of his tendency to farce and caricature; call his humor low comedy, and his pathos bathos—though you shall say none of these things in my presence unchallenged; but the fact remains that every child, in America at least, knows more of England—its almshouses, debtors' prisons and law courts, its villages and villagers, its beadles and cheap-jacks and ostlers and coachmen and Boots, its streets and lanes, its lodgings and inns and landladies and roast beef and plum pudding, its ways, manners and customs—knows more of these things and a thousand others from Dickens's novels than from all the histories, geographies, biographies and essays in the language. Where is there another novelist who has so peopled a great city with his imaginary characters that there is hardly room for the living population, as one walks along the streets?

The wheel of fortune has turned many a man's head.