

THE LONGEST WAY AROUND ECONOMICAL WAY HOME

Department of Agriculture Advises the Cutting Out of Grades on Highways, Even at the Expense of Some Tillable Land.

THE average life of horses and automobiles may be increased and the cost of hauling reduced, according to the office of roads, of the department of agriculture, by relocating many old roads and the more scientific laying out of new ones. The natural tendency in road building is to build a straight road, whether it goes over steep grades or hills, or not, and pulling over these grades naturally adds to the wear and tear on horses and vehicles.

The doctrine of the office of roads is that the longest way around may often be the shortest and most economical way home, and that frequently by building a highway around a hill or grade, but little appreciable distance is added and this is more than offset by the reduced strain of hauling.

The chief drawback from the farm owner's point of view is the laying out of roads on this principle of avoiding grades necessitates, in some cases, running the road through good farm land or orchards or pastures, instead of going around the farm line and building the road through old worn-out fields and over rocky knolls. This, of course, must raise a question in the mind of the individual land owner as to whether the cutting up of his property by a road yields him individual advantages and so benefits his community as to offset the use of such land for a road, or to overcome the inconvenience of having his land divided. In this connection the Office of roads points out that the running of a road and the resulting traffic through a good farm, where there good sheep, cattle, horses, grain, fruit, or vegetables, has a certain advertising value and in many instances makes the land more valuable. In other cases, the importance of such a level road to the community is so great that it might well repay those using the road to give the farmer the equivalent in land

equally good in place of what he has sacrificed to the common welfare.

At any rate, the Office of Roads is now taking special pains to make clear the economic advantage of avoiding steep grades in their roads, even at some sacrifice of better land. Investigation shows that the laying of such roads over hills has resulted more from attention to the preservation of farm lines than from scientific attention to the problem of road building.

According to the testimony of farmers consulted, where a horse might be able to pull 4000 pounds on a level road, it would have difficulty in pulling 3000 pounds up a steep hill. The size of the load, therefore, tends to be measured by the grade of the largest hill on the road to market. In a number of cases actual experiment shows that the relocating of roads around hills has been accomplished, either with no addition in road length in some instances, and with the adding of only a few feet to the highway in others. The office knows of no case where a properly relocated road which has cut out grades has led to any question as to its material reduction of hauling costs.

PRISONERS ON HIGHWAYS PLACED ON HONOR

THE practice of putting convicts on their honor, especially prisoners who are at work constructing or repairing highways, has been started in several states and is meeting with much success, according to reports received by the national committee on prison labor. North Dakota, Oregon, New Jersey, Michigan, Ohio and Colorado are among the states where the honor system has been developed to its highest degree.

Under the laws of North Dakota the board of control may employ convicts on the public highways, their expenses to be paid by the respective counties in which they work. The law stipulates that the prisoners perform their duties under the supervision of skilled laborers who act as guards; but so far as possible, the law declares, the convicts are to be placed on their honor.

Another feature of North Dakota's prison laws is worded as follows: "Each short-time convict worked upon said state roads shall receive a credit upon his time of ten days for each 30 days that he shall faithfully and diligently work upon said state roads, and in case of convicts serving life sentences such privileges shall be given them as in the judgment of the warden is proper, but in case that any convict fails to do faithful and efficient work or attempt to escape he shall forfeit all or as many of said credits as in the judgment of the warden shall be proper."

Few Attempt to Escape.

Of 275 convicts who were worked under the honor system in Ohio only 18—less than 7 per cent—attempted to escape, according to the report of Warden Preston E. Thomas of the Ohio state penitentiary. While these men were thus employed there was no barrier except their own honor between them and freedom. Of the 18 men who broke faith all but seven were caught and returned to the prison, so that the percentage of those who failed to serve their full sentences was only two and a half. This record, says Warden Thomas, compares favorably with trusts in the outside world.

Also in Michigan, where all persons convicted of drunkenness or vagrancy are sentenced to work on the roads instead of going to jail, the practice of trusting prisoners has been found successful. Not only that, but according to W. M. Bryant, good roads commissioner of Michigan, the sentencing of convicts to work on the highways tends to eliminate much petty crime.

It was in Colorado, under Warden Thomas J. Tynan, that the honor system was first employed among prisoners at work on the highways, and it is in that state and Oregon that the system has been most extensively developed. Governor West of Oregon, in a statement to the national committee on prison labor concerning the honor system among prisoners at work on the roads, said:

"Our road gangs are made up of from 15 to 25 men, with a free man as foreman who lives and works with his crew. His word is law in camp and his report as to conduct of the prisoners carries great weight with the prison officials. It is more essential, therefore, that great care be exercised in the selection of these foremen. We have had unexpected success in the operation of our road gangs. Some have been maintained as far as 300 miles from the prison and nearly all in the hills and mountains, where every opportunity was given to escape. At first we lost a number of men due

FARM

largely to the novelty of the plan and unjust newspaper criticism, which made many of them fear the abandonment of the policy and their return to prison. There has been less newspaper criticism of late and the public, seeing the merits of the system, is accepting it as a settled policy."

PERMANENT CONSTRUCTION FOR THE FARM.

Charles H. Meiers.

ONE of the greatest mistakes that many American farmers make is the building of structures which are not intended to endure throughout a long term of years.

Many farmers who have spent a long term of years on the farm can look back over those years and see where they built fences which stood for only a year or two before they were tumbling down and required rebuilding; sheds which were weakly and inadequately erected and which soon became leaky or too small; barns, corncribs and granaries which stood in satisfactory service but a short time before the walls bulged and the roofs leaked. And there are hundreds of other instances which might be mentioned—instance with which we are all familiar.

Now, it costs but a very little more, usually, to erect a building or a fence that will endure for many years. For foundations and floors of buildings, concrete may be used at no great expense, and it will last for many years. Fence posts of concrete, it is said, will last 100 years. Tile, slate or galvanized roofs endure almost indefinitely long. And the expense of building for permanence is not extremely higher than that of building for temporary results.—Build for permanence on the farm.

SEED CORN PROPERLY DRIED.

SOME data regarding storage, germination and resulting stand of several farmers' corn scattered widely over the central section of the country may prove helpful to our readers.

The fall of the beginning of the tests was ideal in regard to ripening and curing seed corn. The average germination of the corn secured then was 76.4 per cent. It ranged from 93 per cent for kiln dried corn to 38 per cent for corn taken from cribs.

The following summer the section suffered a severe drought—with an early frost. Much of the crib corn mildewed. The effect on subsequent germination was very marked, the average for the next spring being only 55.5 per cent.

The lowest germination, 1 1-2 per cent, was that of corn standing in the shock during the winter. Corn cured in well-ventilated garrets or rooms made a good average, and corn fire-dried germinated 90 per cent.

A study of the records of many tests shows that seed corn dried with artificial heat in well-ventilated rooms during the first two or three weeks after picking, gave the highest germination—an average of 91.5 per cent for the two years. Next to this is corn cured in furnace-rooms with open windows where the heat was applied immediately after bringing the corn from the field. Well-ventilated rooms with more than one window gave germination of 86.6 per cent. Corn cured under porches protected from rains gave 70 per cent. Corn in barns, toolhouses, etc., 65 per cent. Germination of corn kept in granaries and on windmills gave only 37.5 and 34 per cent, respectively.

In this study of seed curing much corn which was left lying in piles or standing in sacks, for even a short time after husking, was completely destroyed. The only safe way of curing seed corn is therefore to place the corn immediately after picking in a well-ventilated room and apply stove or other artificial heat for from one to three weeks.

"Can you build a stack?" said the farmer to a laborer who wanted a job. "Sure I can. I can build a stack the shape of an egg."

When the stack was nearly completed the bottom shot out and the stack came to the ground as flat as a pancake.

"I thought you said you could build a stack the shape of an egg," said the farmer.

"So I did. But I didn't say whether it was a boiled egg or a fried one."

See that the horses have a drink while out in the field.

Horses need a roll on the ground in summer; see that they get it.

Never let a wire cut on your stock go unattended. Clean out the wound with soap and water, wash with peroxide of hydrogen, and apply a good healing ointment.

FARMERS' PROBLEMS.

By Peter Radford, National Lecturer of Farmers' Union.

THE intense interest that is being taken in agricultural development and the expression of true friendship indicated by organized and individual efforts of many good citizens, is one of the most encouraging signs of the times. The efficiency of every dollar now invested in promoting agriculture can be increased a hundred fold by a clearer understanding of the farmer and his needs on the part of those who appropriate and direct the expenditure. It is fair, I hope, to suggest to those who would teach us efficiency that they study it as well.

Give Us Profit.

Profit is the greatest incentive to production and compulsory education that the world has ever known. The farmer is human. He works for money



PETER RADFORD,
National Lecturer Farmers' Educational
and Co-operative Union.

and he will intensify and diversify whenever it pays him to do so, and no amount of well-written formulas or monstrous exhibits will permanently influence him quite so much as a dollar at the end of the row. Not a theoretical dollar, but one he can put in his pocket. A dollar that comes from the result of a sale. The weakness of many plans is that the factor of profit has not been duly considered.

It is perhaps one of the ironies of fate that commissions, boards and special investigators—sent out by the government—deplore the incapacity of the farmer.

Such is not the case. The American farmer of today is the most capable workman in the history of the world's agriculture. The farms of the United States produce an annual farm value greater than any other agricultural country on the globe. The American farm is the largest, it is true, but the final test of a successful producer is net receipts per farmer and that is in favor of the American plowman.

There has been a very steady increase in the value of products per farm in the United States during the past 30 years. Not as great an increase as other lines of industry perhaps, but we compare favorably with the farmers of other nations. The record by decades is as follows: The average farm produced in 1890, \$338; in 1900, \$822; and in 1910, \$1336. We also show during this period an increase of over 2,000,000 farms.

Partnership of Industry.

Farming is the biggest business in the world and constructive work that will permanently benefit agriculture must be planned on a big, broad, comprehensive basis. Co-operating with the farmer as an individual is not sufficient and will not reach the heart of the problem. The heavy and more important work can only be done through organization. There must be a partnership between industries and each line of organized industry work within its own orbit. The bankers can render a service in working out a system of credits better adapted to the business of farming; the transportation lines can help us by locating markets and reaching them in best condition at the lowest expense; the agricultural departments of government by co-ordinating supply and demand and the study of market conditions and methods. There must be a partnership between industries.

Dame Nature is a fickle goddess and men sometimes play fast and loose with her, but the farmer knows that prosperity will never sit idly beside him. It will come only as a result of intelligent toil and the application of sound business methods.

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