GOOD ROADS

Good Roads a Big Issue.

It is significant that the two leading articles in a recent issue of the National Advocate, a journal devoted to agricultural life and interests, should deal with "The Rush to the Cities" and "The Relation of Good Roads to Rural Life." The first of these papers, by President David Starr Jordan of Stanford University, points out as one of the most disquieting features of our social condition the alarming tendency to congestion in the cities. The second paper, commenting on the necessity of improved roadways, gives one of the most important of the reasons for this tendency.

Entirely apart from the immensely important considerations of commercial and industrial welfare, the nation must look to national and State systems of good roads if it would build up the country. And the country is the storehouse from which every nation draws its strength. The journal quotes from the California Advocate:

"First, and as the necessity without which nothing can be done, we must have good roads—roads over which vehicle or bicycle may glide rapidly and smoothly, and even now, with such roads, with good horses, or the swift bicycle, are neighbors and families in the country, in closely setiled communities, practically brought as near together for all social intercourse and enjoyment and advantages of education as residents of a city. Small holdings, well tilled, bringing thickly populated rural communities, will support, in near-by towns, good schools, churches, public libraries, gymnasiums, halls for musical and theatrical entertainments, and social enjoyments of all kinds, and all within easy reach of the entire community. Under these conditions nothing which the city has to offer may not be had in the village, and within the reach of the means of every thrifty farmer."

Nor should it be forgotten that the establishment of good roads would aid materially in bringing on the day of rural mail delivery, which, itself, promises to do a great work in building up the country. If the various legislative bodies of the nation would abate discontent and give the nation a lift toward brighter days, let them turn their attention to this problem.

Watterson on Good Roads.

Henry Watterson takes issue with a good roads advocate who insists that the general government should have charge of road-making—that there should be national highways built and maintained at public expense. This advocate points to the highways leading from Rome and expresses the belief that the United States would be greatly benefited by imitating the example set by the Roman Empire hundreds of years ago. Colonel Watterson brushes this zealous advocate's arguments aside with perfect ease, and in a manner that will be satisfactory to the great mass of people, and particularly the farmers, who are more interested in having good roads, or who will be more benefited by good roads, than any other class.

Mr. Watterson says that the good roads of the Roman Empire were created for convenience in the movement of great armies. Certainly the United States does not need wagon roads upon which to move its armies in time of war. Our system of railroads answers that purpose fully. It did so thirty-five years ago during the great civil strife. It can do so better to-day that it could then. It can do so much more promptly and satisfactorily ten, twenty, thirty, fifty years from now. The good roads that are needed, those that are most needed, in the language of Colonel Watterson, are those that "lead from the farm to the railroad, the mill, the factory, the school, the church, the ferry and the market." This apt remark of Colonel Watterson is a condensation, a simplification, an absolutely plain presentation of what is most wanted in the matter of good roads. Carry out that idea and what will be wanting? It will meet the requirements of the farmer; it will save the farming element hundreds of millions of dollars every year; it will meet the expectations of the pleasure seeker; it will add to the value of every foot of land in the country; it will be of value to every merchant and every professional man; it will be a source of pleasure and profit to all classes, in all communities.

Agitation along the lines laid down by Mr. Watterson will prove the most valuable effort in bringing about a system of good roads. Such agitation would reach the hearts and minds, yes, and the pockets of the public. It should not be forgotten that that which is most needed to-day, and which will be needed most during the next few years to bring about good roads, is agitation. Those people who are anxious to exert an influence in that direction cannot study too carefully the question of agitation in order that they may agitate practically, successfully—agitate so as not to antagonize; so as to educate in the right direction, and so as to get the co-operation of the masses of the people.

Such work as that would build up a good roads sentiment that will as surely lead to the building up of good roads as the sun is to shine when the skies are clear.

Silkworms of Lebanon.

Harry Fenn, the artist, has written a paper entitled "Silk and Cedars," for St. Nicholas, describing his visit to the famous mountains of Lebanon. Concerning the silk industry, which plays such an important part in the lives of the natives, Mr. Fenn says: As the time approaches for the silkworm to hatch out of the egg, the family move out of the house, and camp under the trees, giving up the entire establishment to the worms, after having placed the eggs on shelves made of a reed like bamboo. At first the young worms are fed on finely chopped leaves; but as they grow larger the leaves need only be broken in two. The people have to feed and watch the worms night and day, or they wander in search of food and be lost; and in the silence of the night the sound of the worms feeding is like a gently falling rain.

The worms fast three or four times during this period, and about twenty-four hours is the length of each fast. A curious feature about their fast is their posture; they assume the attitude of a cobra snake about to strike, and remain rigidly fixed in that position for the entire period. When they are ready to spin, small branches are placed on the shelves, and as the cocoons are formed upon them the dead twigs seem to bear golden fruit. When the worms get through that part of the business the neighbors are called in—something as to an old-fashioned New England apple-paring bee. They call it "qtaf" in Arabic—that is, "picking;" and soon you see piles of pale-green, pure-white, and golden-yellow cocoons heaped upon the floor. Later they may be spun into hanks; but usually the cocoons are sent down the mountains to Tripoli or Damascus, and after their thirty or forty days of toil, they too often have to sell the produce for next to nothing, as the Chinese are always ready to undersell them.

Another curious use Mr. Silkworm is put to is to soak him in vinegar for some hours after which he is drawn out into so-called "catgut" to make snells or leaders for fish-hooks.

Both Were Gentlemen.

One cold and stormy evening last winter a prosperous-looking business man stopped in the vestibule of a large office building, on his way out, and attempted to light a cigar. An urchin with an armful of papers also stood within the arch, stamping his feet on the stone step to warm them, as he lustily cried his wares.

The wind blew out the last match which the fur-coated broker had about his person, and he turned to the boy and said:

"Here, boy, give me a match."

The lad eyed the gentleman furtively as he inquired: "Say, mister, is that a demand or a request?"

Instead of being angry at this reproof, the gentleman—for he was such—replied kindly:

"A request, my boy, a humble request; and I'll take a couple of evening papers, too, I guess," he added, as he received the match from the youngster's hand and passed him a quarter, "and you may keep the change."

"That man's got manners if he's a mind ter take the time ter use 'em," said the boy, as his patron boarded a car.

"That boy won't always have to sell papers if he practices what he preaches," thought the broker, as he sat down to read the news.—Philadelphia Item.

Close Cropping.

Sir Henry Hawkins, one of the justices of the English bench, wears his hair very short—the prize-fighter's cut—and is clean shaven. On two occasions this habit has led to Her Majesty's judge being mistaken for a member of the class to be shunned.

Sir Henry was once waiting to take his ticket at the Epsom Railway station, at which there were a number of roughs returning from the races. One of them was rude to the judge, who remonstrated with him, whereupon the man invited him to go outside and have "what for." Sir Henry then took off his hat, thinking that, as the men were probably of the criminal classes, they would recognize him, and quietly remarked:

"Perhaps you do not know who I am."

"S'elp me, Bob," his assailant said, edging off, "a bloomin' prize fighter. Not me," and the judge was not further molested.

On another occasion Sir Henry, out on a ramble between assizes with a companion, stopped at a wayside inn and they were soon hard at skittles with two rustics. Things went on pleasantly until, in an unguarded moment, the judge removed his moleskin cap. Thereupon one of the rustics, eyeing him suspiciously, said, "I don't mind being neighborly, but I'll be hanged if I'm goin' to play skittles with a ticket-of-leave man."

Would See His Mother.

Mr. Greville was persuaded, when he was over 65 years of age, to attend a spiritualistic seance. Foster, the presiding medium, was in great form, and the revelations were astounding. Greville sat silent, and his aged, wizened face was emotionless as a mask. Suddenly the medium grew excited, and said to the old gentleman:

"A female form is bending over you. Oh, the extraordinary likeness!"

Greville signed.

"She lifts her hands to bless you."

Greville sighed again.

"It is your mother!"

"Ah, poor thing," said Greville; "I am glad."

"She smiles! She says all is well with her!"

Greville sighed again and said, "I'm delighted!"

"She says she will see you soon. You are old, and you must see her before long."

Then Greville quietly observed, "That's very true! I'm going to have tea with her this evening."

Tableau!—London Judy.

A man should work every day, or not at all. When a busy man rests on Sunday, he is upset for several days.

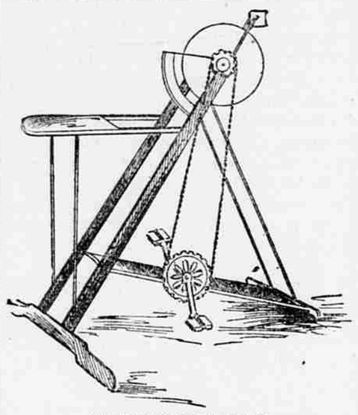
TIMELY FARM TOPICS.

MANAGEMENT OF THE FARM, GARDEN AND STABLE.

The Farmer Should Use Brains as Well as Muscle—Device for Turning the Grindstone—How to Stop a Kicking Cow—Saving Grass Seed.

For Turning the Grindstone.

A contrivance for turning a grindstone, by means of which one can turn and grind at the same time with comparative ease, has been devised by a correspondent of the Rural New Yorker. To construct the device, take the small sprocket wheels and chain from an old worn binder or other farm machinery, and gear it two to one; that is, the lower or crank shaft wheel must have twice as many cogs as the one on the stone shaft. Use a stone twenty or more inches in diameter, and be sure to get a good one. An Amherst is better than a Berea, for all purposes. If geared higher than two to one, it will turn hard, and if much lower it will



GRINDSTONE DEVICE.

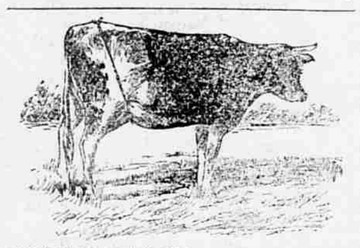
not turn fast enough. It is the fast motion that cuts. One may find an excellent pair of cranks from some old bicycle.

System on the Farm.

On many farms the most apparent causes of failure are a want of system, wastefulness, and misdirected labor. It doubtless is far more difficult for the farmer to reduce his business to a definite system than it is for the average merchant, but that is no reason why he should abandon all attempts to do so, and work blindly. There are many farmers who are careful men, who are striving to reduce their operations to systematic rules, and who are doing a good deal in this line in the way of keeping daily records of the milking of each cow, in keeping ledger accounts with each important crop, and in carefully recording the average work done by faithful men in the several occupations of the farm. These are the kind of farmers who are, as a rule, successful. They quickly detect a leak when one occurs, and can usually tell, after a year or two of experience, which operations of the farm are profitable and deserve extension, and which should be abandoned as unlikely to prove profitable. The farmer's business as usually carried on is largely a mixed industry. There are usually a few staples produced for sale which the farm is adapted for by nature to produce; and, besides, there is a considerable variety of produce raised for home consumption by the family or by hired help. If the farmer would carefully count the cost of each of these products, he would doubtless find that he could profitably extend some of the small products, and sell the surplus at a profit, and not infrequently he would discover that some of the staples supposed to yield a sure profit are produced at a very small profit, or even at a loss. In short, the farmer who uses his brains, and does not solely rely upon the strength of his muscle, is most likely to be successful. The absolute failures are those who attempt to get along with a minimum expenditure of both qualities.

Stop the Cow Kicking.

The kicking cow, while milking, is an abomination, says a correspondent of the American Agriculturist. To prevent the kicking a small rope or large cord should be passed around the body



SIMPLE PLAN THAT PREVENTS KICKING.

just in front of the udder and over the top of the hips. It need not be drawn tight—just snug will do—and no cow to which it is applied will even try to kick. Sometimes a cow thus tetherd will lift a foot as if to kick, but somehow she seems to change her mind and puts it down again.

Retail Prices of Cheese.

Considering the small risks run, middlemen make far too large a profit on cheese. Four, five and even six cents a pound between the wholesale and retail prices is much too great a difference. When there is a good-sized family, all liking cheese, it does not take many days to dispose of a whole cheese. If more people would make cheese a staple article of diet, it could be used instead of meats with great advantage in summer.

Making Cornrows Straight.

Much labor in cultivation may be saved by making corn rows straight. It is very hard to hold the cultivator so as to miss hills that are alternately a few inches out of plumb line one side or the other. The result is that in trying to save the hills it is impossible to cultivate the soil as it should be or to take all the weeds. With the corn in a straight line earth may be drawn from the stalk and thrown back again so as to destroy all the weeds while they are small. It requires not only a true eye in the driver, but an active, strong horse to draw the marker straight across the field. It is not every man or horse that can ever be taught to do it. Those who can should be paid extra for the job, for their work is really skilled labor.

Cutting Potato Seed.

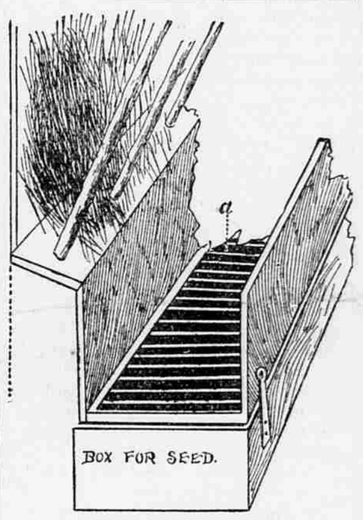
It is slow, tedious work to cut the potato seed for planting large fields. Yet with most kinds of potatoes the cut seed is a necessity, for if the seed is planted whole there will be too many small potatoes from crowding of so many stalks in a hill. It is true not all the eyes on a whole or even of a cut potato will grow, but if seed is planted whole there will be far too many for profit. It is dirty work cutting potatoes, not so much from the soil adhering to them as from the potato juice, which discolors and rusts the knife and stains the hands. This discoloring is easily removed by wetting the hands in pure water without soap, and then holding them over one or two burning sulphur matches. The fumes of sulphur are excellent to bleach anything.

Breeding Ground Hogs for Food.

Mr. Henry Singer, a well-known and thrifty farmer of near Duvall Station, Scott County, Ky., has for the past two years been domesticating the ground hog with much success. Mr. Singer found a burrow in which he captured seventeen ground hogs, and, taking them into a small lot on his place, he built a close wire fence through which none could escape. Last year the hogs increased to 205, and this year there were 1,673. Of this number Mr. Singer killed 1,000, which he salted away and will smoke dry, as Kentucky farmers do with ordinary pork. The ground hog when so cured is a great delicacy, and Mr. Singer has more than enough to furnish his meat for the coming year.—Southwestern Stockman.

Save the Grass Seed.

It is an easy matter to save hay seed by a slatted manger bottom (a), as shown in the cut. If the seed is fanned, it may be used for spring seeding. Or if weedy, as poultry never void undigested food, such seeds may be profitably fed to the poultry by placing in



A GRASS SEED CATCHER.

the scratch room each week.—Farm and Home.

Egg Plants.

The egg plant is not difficult to grow, and it is one of those vegetables not often seen on farmers' tables, but which, if provided, would help make an agreeable variety. The purple egg plant is most productive and best. The plant belongs to the same botanical family as the potato, and must be protected from attacks of the potato larva. The best way is to watch the plants closely so long as the potato beetles are flying, and kill the beetles before they have laid their eggs. If any larvae hatch a weak dilution of paris green will kill them.

Profit from Garden Herbs.

A few papers of herb seeds, such as sage, parsley and the like, should be found in every farmer's garden. They are easily grown, and a home supply will not only save paying out a good deal of money in the course of a year, but the surplus may be sold at rates which leave a good profit. The demand is not large in any neighborhood, but for the amount of land and labor required few garden products pay as well.

Work in Poultry Keeping.

Every year many people begin poultry keeping with a vague notion that it is an easy way to get a living, all the work being done mainly by the hens. But such persons inevitably fail, as they ought. There is no easy way to success in anything. To keep fowls free from vermin and disease needs constant attention and a great deal of dirty and very disagreeable manual labor.

The Truly Good.

A newspaper man needs no Sunday and seldom gets one. His life is usually so pure and good that he goes into a state of chronic humiliation and regenerated sanctification that is only a trifle below that of the angels. When several other inhabitants of this terrestrial sphere get out of old Charon's catboat on the other shore they will find several editors fishing along the banks for mud cats, and the new arrivals will have to dig bait and spit on the hook.—Ripley (Ohio) Bee.

The 20-cent piece was authorized March 3, 1875, and its coinage was begun the same year. Its coinage was discontinued by act of Congress May 2, 1878; great inconvenience and annoyance to the public arising from the confusion of this coin with the 25-cent piece.

NOTES ON EDUCATION.

MATTERS OF INTEREST TO PUPIL AND TEACHER.

A Similar Course of Study to that in a Connecticut School Should Be Adopted by Every Board of Education in the Country.

Study of a Town.

There has been prepared for the use of the public schools of Brookline a guide to the local history of that town which is so admirable, because suggestive and instructive, a work, that it well deserves to be made a model for similar publications in other municipalities. The aim of those who prepared this pamphlet was to build up in the minds of the children a knowlege of, and love and respect for, their town. The first point taken up is geography, in which the suggestions for a detailed study of the present and past physical conditions of the town are presented, and its relation to surrounding municipalities or objects of historical or political importance. Following this comes the geology of the town with enough indications to enable teachers to give their pupils field lessons bearing upon the geological formation of the particular area covered by the township. Then follows an abstract, in questions and answers, of the settlement of Brookline; how it became separated from Boston; what old or noteworthy buildings it has or has had; in what way it was related to the early routes of travel, and the services performed by its citizens in the various wars in which our country has been engaged. All these subjects, though given in the pamphlet in the abstract, have such side-note references as would enable teachers and pupils to make in other quarters a most exhaustive study of them.

Having thus established in the minds of the public school scholars a knowledge of what the physical conditions of the town are, and what its history has been, attention is called to its government, and this latter topic of study, when combined with what preceded it, seems to be one of the most satisfactory services to which public school instruction could be turned. The pupils are taught the distinctive features of a town government, in what way its officers are chosen, who they are, and what they do. The questions of municipal finance are considered, how taxes are raised, how public debts are incurred, what the various expenditures of the town are, and what have been the rates of taxation, with their variations for the last few years. These are the outlines of a course of study which are filled in partly by statements in the pamphlet itself, and of documents to which side note references are made.

It seems to us that a work of this kind cannot fail to be of incalcuable value. For years past the attention of teachers, in both our public and private schools, has been turned to the study of the history of our country. We have in this way developed, and possibly overdeveloped, what would be termed the patriotic sentiments, but we have, perhaps, developed them at the expense of what would be called the sentiment of public spirit. If our country was in danger, either from a foreign war or a great rebellion, this faith in our national institutions and pride in our national career would unquestionably lead millions, if need be, to sacrifice their lives upon the altar of their country. Unfortunately, however, this sentiment does not count for all that it should under the ordinary conditions of life. It may make a man a self-sacrificing patriot in the hour of great peril, but it by no means guarantees that he will be a good citizen in time of peace. This latter want can best be supplied by a study of local questions, such as that suggested by this Brookline public school pamphlet.—The Connecticut School Journal.

Scrap Books for Schools.

As you are to teach geography and history, and as a rule will have no reference books, you should make at least three scrap books. If you have any money for this purpose, buy three large invoice books from a book store. If no funds are available, you can probably secure from some patrons some old reports from some of the State or national departments. From these cut out every second and third leaf, pasting your scraps on the remaining pages. Or you can buy a regular scrap book from a store. Use one book for geography, including descriptive, physical, and mathematical, another for civics, history and civil government, not only of the United States, but of all things bearing upon its history and government, and the other for "general information."

Now, when we have the books, and paste or mucilage, of course, the real work begins. Do not undertake to fill the books at once. Sift everything carefully. Envelopes may be kept in the desk, properly labeled, and the pasting can be done at stated times. Do not let the matter accumulate too fast. The book can be filleld up with newspaper clippings and with written matter gleaned from valuable books and magazines. The patent insides of most country papers contain much valuable matter for all these books. You need not take all of an article, but omit paragraphs that are not pertitnent. It might be well to make an outline on the board designating the subjects on which you want clippings and each pupil can be requested to watch the papers and magazines for material for the scrap books. You will soon have three valuable reference books, and others can be made in other years. It is but little trouble and the expense is slight and the returns large. Another might be made under the head "Poems and Anecdotes," which would serve to amuse and interest the pupils on many a rainy day. It would also serve for Friday afternoon exercises, as well as for supplementary reading.—Intelligence.

Greeley's Writing.

There was only one printer who could read Greeley's writing well enough to put it in type. He used to boast that he could read the great editor's wondrous scrawl a mile away.

One night the boys in the New York Tribune composing-room "put up a job" on the old man. They took two roosters, made them walk on a newly-inked form, and then run all over ten sheets of copy paper.

The foreman wrote over it, in Greeley's well-known scrawl, "The Plain Duty of Congress," and put it on old man Lawton's hook. I think his name was Lawton, but if it was not it does not matter much.

The old printer picked it up, swore a little, remarked that they had to shove the stuff on the old man as usual, adjusted his spectacles and began sticking type.

The other printers watched him for a few minutes but beyond a muttered oath or two he gave no sign. Lawton went on setting type until about half way through the "copy."

Then he was stuck.

He took the copy over to the foreman and asked:

"Jack, what is that word?"

"I don't know," replied the foreman. "You know I never could read that stuff."

Lawton took the sheet down to Greeley and pointed out to him a particularly awful scrawl of the rooster's foot, asking what that word was.

Greeley looked at it a moment, and replied, with a frown:

"'Unconstitutional,' of course."

Lawton went back to the composing-room and finished his task with the utmost sang froid.

The old man never knew how the "copy" was produced.—Journal of Education.

Stray Notes.

Lippincott quotes some very explicit, and at the same time peculiar, excuses and remonstrances sent by parents to "teacher." One of them seems to be a very emphatic protest against leading children to read according to the new method:

"Teacher: I dink you are a fool, you want my boy to read when he don't have no aiferbits. Please teach him some."

There are few parents who have such dutiful sons as the boy whose absence is thus explained:

"Dear Teacher: Please excuse Fritz for staying home he had der measles to oblige his father."

Another woman would like to take her choice among accomplishments:

"You must stop teaching my Lizzie fisical torture, she needs yet readin and figors mit sums more as that. If I want her to do jumping I kin make her jump."

Another may easily have been so much distracted from anxiety to pay attention to her style:

"Please excuse my Paul for bein absent he is yet sick with dipterry and der doctors don't tink he will discover to oblige his loving Aunt Mrs. ——. I am his mother's sister from her first husband."

Hints for Teaching.

For geography—International trade or commerce is an interesting and practical subject. What does our country buy of the other countries of the world and what do they buy of us? Reciprocity treaties should be considered in this connection.

The different nationalities form excellent lessons in geography, so do the races. Write out the names of countries inhabited by each race. How are the savages of Europe, Asia and Africa distinguished from those of America? In what countries besides Ireland and America will you place the Irishman? Where does the black Caucasian belong?

Note the countries to which the well-known animals belong. In what countries do you place the horse? Why not in all countries? Where are no dogs found?—no snakes? Give reasons. These exercises will awaken the thoughts and lead pupils to study geographical principles.

Make relief maps of countries, show how mountains have laid the foundations of nations, and the distribution of animals and plants.

Relief maps can be made with pulp, and very beautiful ones, by mixing salt and flour moistened with water.—Intelligence.

Typewriter Telegraph.

A novel apparatus for the immediate typewriting of telegrams received in the news service has been introduced in Berlin. With this apparatus any one can send or receive it. The principle is that the keys of a typewriter are electrically connected with another, or a number of other typewriters similarly fitted, and the greatest benefit claimed for the new invention is that the writing is always kept in sight. A telegraph operator sending a message sees before him in print what he has been writing, his copy forming the official proof of the message sent. It is hardly necessary to say that a telegram sent by means of this apparatus becomes as strong evidence as a written document, of which a copy has been taken, since a copy of the message exists at the station where it was sent from, with no possibility of the operator having made a mistake.

In England no physician may legally give a certificate of the cause of death unless he has prescribed for the person at least forty-eight hours before death. Without such a certificate no undertaker is permitted to bury the body.

A portrait supposedly Charles Carroll, was discovered lately in Baltimore in a cellar of the old Carroll house. Its authenticity is left to the decision of the Maryland Historical Society.