

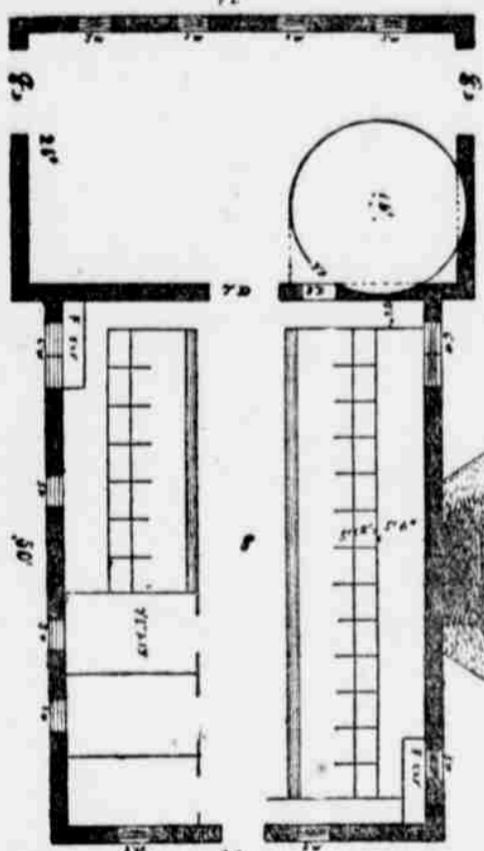


COW BARN AND SILO.

A Modern Structure for Fifteen or Twenty Animals, with a Fair-Sized Silo on the Inside.

The ground plan (Fig. 1) shows an arrangement which might be adopted. Box stalls are provided, since every cow barn should have receptacles for sick animals, calves, and a bull. The floor of the manure receptacle should be cemented and constructed on a level about one foot lower than the stable floor. The drops behind the cattle may be constructed as in the cross section (Fig. 2). The floor where the cows stand may be of wood laid on a smooth surface covered with salt or cement mortar, and nailed at both ends to the bed pieces.

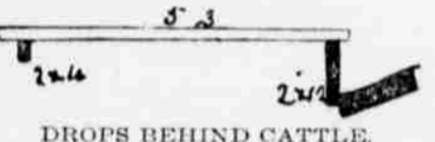
The feed halls are wide enough to permit of placing low, narrow meal bins



PLAN OF BARN AND SILO.

along the walls, two of which are shown. Two double windows are shown, one on each side, the aim being to provide abundant light in the center of the building where it is cut off by the manure receptacle.

Build a cement floor, slightly raised, for the silo, which should be constructed of milled staves, not grooved, two by six inches, as long as desired. If a tail silo is desired, the staves may be applied. Nail a piece of board about three inches wide and three feet long on the inside over the joist, for support while erecting the silo, the board to be removed when the silo is completed. The silo may be filled from the earth



DROPS BEHIND CATTLE.

driveway which leads to the second story. The first story should be nine feet in the clear, the second one sufficiently high for storing the hay and straw required without filling much above the plates. A ton of hay may be roughly estimated to occupy a cube of eight feet. Both sections of the building should be roofed the narrow way, for looks if for nothing else. A few supporting posts and a summer (bearing beam) should be placed under the second-story joists of the manure barn. If they are placed 14 feet from the left hand outside, they will not seriously obstruct the work of removing the manure. The second-story joist of the cow barn may be supported by summers running lengthwise of the barn, placed 12 feet from the outside by five posts on each side.—Country Gentleman.

ORCHARD AND GARDEN.

Cultivate thoroughly during the early part of the season.

Small trees are less liable to damage in handling and shipping.

No animals but hogs should be allowed to run loose in the orchard.

Plenty of room will give thriftiest and longest-lived trees and better fruit.

A limb or any part of the foliage should not be removed without good reason.

Grafting wax is one of the best materials to use in covering up wounds made in pruning.

A dressing of wood ashes will, in a measure, prevent the ravages of maggots and cut worms.

When the grape vines are set out putting a few old bones in the place prepared for them will be beneficial.

In planting out strawberries stick to the old standard sorts for the main crop. Try new varieties on a small scale.

If manure is applied when the tree is set out be careful that it is thoroughly incorporated with the soil.—St. Louis Republic.

THE WAY TO BEGIN.

New Road Improvement Can Be Inaugurated Everywhere Without Additional Expense.

What is to be done under conditions that obtain in many parts of the country? Is the question raised by a correspondent of Good Roads, who says:

"We have in this township assessed roughly at \$350,000 some 60 miles of road. We cannot spend \$10,000, \$1,000 or even \$500 per mile on these roads. There is not enough money in the township, all told, to do it, and the law limits the bonded indebtedness. To select a few miles of the principal highway is not just to the poor fellow who helps pay for it and must drive five or ten miles to reach it.

"Much better work might be done than we are doing, but it remains that many miles must be attended to with few dollars. What most is needed is careful consideration of existing conditions—how best to spend \$1,200 or \$1,500 on 60 miles of road, reserving \$300 or \$300 of that for the winter's snows. Teach us serviceable lessons for communities of this sort, and do not expect asphalt, macadam or steel until the fellows from town help to build them (and they haven't built their own yet).

"No wonder the rustic kicks if the road is to cost more than the entire value of all the farms through which it passes. He appreciates good roads, but must remember his slim pocketbook. He laughs a little, too, at the big saving heavier loads would make for him. Nine out of ten of him at that time of year have little to do for self or team and are not crowded with what they have to market. He would rather make two trips than one, as he and his horses both need the exercise."

The tendency in such cases as this is to underestimate the beneficial effects of hard roads and to assume that they are of value only during the winter. They are of enormous value then, and of equally great value in summer and the busy seasons, when the possibility of hauling big loads is money in the pocket.

In the past the farmer has been left too much to his own resources in the care of the highways. Now, however, state aid is rapidly being acknowledged as the proper means of promoting the good work, and the states are slowly but surely falling into line in adopting it. Until it is generally in force there may be time for much good work to be done, and the first steps toward real improvement can be taken by securing careful grading, thorough drainage and the adoption of wide tires.

In this connection the experiences of two southern counties is right to the point. In one the loads averaged 2,466 pounds and the tax is ten cents a hundred. In the other the loads are but 800 pounds and the tax 20 cents a hundred. Improved methods reduced the road tax one-half and greatly improved the roads.

This county owns graders, plows, carts, implements and six mules, and a superintendent and five men are kept at work on the roads. The work costs \$55.17 a mile, and, though the roads are only plain "dirt," they are kept in such good condition that three times as much can be hauled as on roads cared for in the old way. Here, surely, is a cheap and easy way to begin.

STORY WITH A MORAL.

A Good Many Road-Makers Build Their Roads Like the Old Quaker Made His Ax.

The notion that "anybody can build a road" is responsible for many failures. Commissioner MacDonald, of Connecticut, tells a story of such people. He says that a Quaker went into a hardware store to buy an ax.

"How much does thee ask for a Bradley ax?" he asked.

"One dollar and thirty-five cents," was the answer of the shopman.

"Thee asks too much; I will make an ax myself."

He bought a chunk of steel, took it home, put it in the fire, hammered it and belabored it until it had assumed the general outlines of an ax head. But it was dull.

"Huh," again quoth the Quaker, "thee ax. But thee can make a wedge." He put the steel back into the forge and knocked it into the shape of a wedge. But it had lost its temper.

"Huh," again quoth the Quaker, "thee cannot make an ax, and thee cannot make a wedge, but thee can make a sizzle," and he thrust the hot iron into the rainbarrel. That's what a big majority of road makers used to do in this state—make a sizzle.—Good Roads.

Value of the Separator.

Recent German trials indicate that the separator removes from milk and cream not only the dirt and slime which pass through the strainer, but the greater portion of the bacteria. As cows are usually cared for and handled there is always some dirt and dandruff from the cow's udder in the milk. This cannot always be caught in a strainer, but if any passes through it is included with the slime, which remains in the separator bowl. The German trials indicate that most of the bacteria remain with it.

In transplanting, do not let the roots remain exposed to cold or storms.

RAILWAY MANAGEMENT.

Address of Hon. M. E. Ingalls to the Commissioners' Convention.

Questions Pertaining to the Conduct of Railways Which Are of Interest to the General Public.

The railway commissioners of the country met in convention at Washington, D.C., on Tuesday, May 10, for the purpose of considering questions of great interest both to the railways and the people of the United States. The convention was addressed by Hon. M. E. Ingalls, a high authority in railway matters, upon the establishment of proper traffic, conduct of shippers and the betterment of existing conditions in railway affairs, also the advancement of measures looking to the greater comfort and convenience of the public. Mr. Ingalls' address is here given as being a semi-official expression of the views held by railway managers generally, and as being also of general interest to the public at large:

"Mr. Chairman and Gentlemen: I am very much obliged for this opportunity of addressing you. I understand I have in my audience the members of the Interstate Commerce Commission and the gentlemen composing the various railway commissions of the different states. It is a body that is supposed to stand as an arbiter between the railroads and the people, as a friend of both; a body that ought to and does have great influence, and especially in reference to legislation regarding railroads. If this audience should agree upon any legislation in that respect, it is needed, I presume there would be no difficulty in inducing your congress to enact it into law, and believing as I do that it is essential to the public interest to secure legislation, I am pleased to have this opportunity of presenting my views and endeavoring to enlist you in the reforms which I think are so vital. We have reached a crisis in railway management where something must be done if we would avoid disaster, not alone to the railways, but to the material interests of our country.

"For 20 years a contest has been waged in legislatures, in congress and before the courts, by the people on one side who believed that railroads were public corporations and subject to control by the power that created them; and, on the other hand, by officials of the railroads, who did not believe such control was legal or practical. Legislation in that respect has rights were contested from one court to another, and decided from time to time always in favor of the people, under certain restrictions. It finally culminated in 1887 in the enactment of the interstate commerce law, and since then there has been hardly a day when some provision of that law was not under consideration by the courts or by congress, until now we may say it is as firmly settled by the highest courts in the land that the legislatures of the states have control over railroads with reference to their local business, subject to certain conditions, and that the congress of the United States has the power to regulate interstate business. The supreme court of the United States, which is the highest arbiter of these differences, has just decided that such control of the states, or regulation, must be reasonable, and that rate cannot be reduced below a point where the railroads can earn their expenses and a fair return upon their cost.

"Railway managers had accepted the situation and were endeavoring to obey the interstate commerce law and adapt their management to it when in March, 1897, a decision was rendered by the supreme court which produced chaos and destroyed all agreements. It was practically that the Sherman anti-trust law, so-called, which it had not been supposed applied to railroads, did apply to them, and under the construction of that law by the court it was practically impossible to make any agreements or arrangements for the maintenance of tariffs. In the case brought against the Joint Traffic Association in New York, this view was combatted by the railroads and it may be modified by the courts. But since that decision in March, 1897, there has been practically a state of anarchy so far as the maintenance of tariffs is concerned in a large part of this country.

"It is well, perhaps, that we should look the situation fairly in the face, and while I do not care to be an alarmist, I feel bound to state plainly to you the condition today, so that you may understand the necessity for action. Never in the history of railroads have tariffs been so little respected as to-day. Private arrangements and understandings are more plentiful than regular rates. The larger shippers, the irresponsible shippers, are obtaining advantages which must sooner or later prove the ruin of the smaller and more conservative traders, and in the end will break up many of the commercial houses in this country and ruin the railroads. A madness seems to have seized upon some railway managers, and a large portion of the freights of the country is being carried at prices far below cost. Other than the maintenance of tariffs the condition of the railroads is good; their physical condition has been improved; their trains are well managed, and the public is well served. If a way can be found by which tariffs can be maintained and the practice of secret rebates and private contracts discontinued, the future will have great promise for railway investors, railway employees and the public generally. And here I wish to say that this is not a question which concerns railway investors alone. If it was, you might say 'let them fight it out.' It concerns over and above everyone else, the great public. One-fifth of our people are interested directly in railroads, either as employees or employees of manufactures that are engaged in furnishing supplies to the railroads. Can any body politic prosper if one-fifth of its number is engaged in a business that is losing money? The railroads serve the public in so many ways that their prosperity is closely interwoven with the prosperity and the comfort of the ordinary people. One thousand millions of dollars were paid out last year by the railroads from their earnings to employees of manufactures in this country: 511,000,000 of passengers were carried; 13,000 millions were carried one mile; 755,000,000 of tons of freight were moved; 25,000 millions of tons were moved one mile. Do you think that any interest performing such immense service as this can be in difficulty and the balance of the country not feel it? Forty millions of dollars were paid out for public taxes. Over three thousand millions of dollars that have been invested in railroads have earned no dividend for years. This is not 'water,' as some popular orator will say, but good, honest money. These securities are held all through the land, and their failure to pay any return has brought disgrace upon us abroad and suffering and want in many a family and community at home. A slight improvement in the rate, which would be sorely felt, would make

this investment good. One mill per ton per mile, or one-tenth of a cent, additional, last year would have made \$95,000,000 increase in net revenue, and this would have paid three per cent. upon this invested capital.

"These are the material sides of the question. There is a much more dangerous view, and that is the demoralization of the men conducting these immense enterprises and the want of respect for the law which is being developed by the present situation. The trouble is not due altogether to the provisions and the interstate commerce law. It has grown up from various sources. The panic of 1893 and the loss of business for the next few years intensified the competition between the lines; new avenues were opened; the competition of the Gulf ports increased enormously; also that of the Canadian Pacific on the north. Altogether, these causes produced such sharp competition, coupled with the decision referred to of the courts, that no understanding or agreements can be made, and have combined to produce the most complete breakdown that has ever been seen in any business. There is less faith to-day between railway managers with reference to their agreements to maintain tariffs than was probably ever known on earth in any other business. Men managing large corporations who would trust their opponent with their pocketbook with untold thousands in it, will hardly trust his agreement for the maintenance of tariffs while they are in the room together. Good faith seems to have departed from the railway world, so far as traffic agreements are concerned.

"One of the chief difficulties with the law as it stands to-day is that the punishment for private contracts and rebates is entirely out of proportion to the offense. The imprisonment clause was put in as an amendment to the interstate commerce law, and I believe the commission and everyone who has watched its workings will agree with me that it has been a failure; more than a failure, that it has caused perhaps more demoralization than anything else. The public has not believed in it; it has been impossible to secure conviction; it has prevented the railway official who desired to be honest from complaining of his competitor whom he thought was dishonest. In fact, it has been what every law is that is not supported by public sentiment—a failure. What, in fact, is the manner of conducting business to-day? The railway official who desires to be honest and law-abiding sees traffic leave his line and finds the freight that he was carrying hauled to the warehouse of his rival, the earnings of his line decreasing and complaints from the management of loss of loss of his position. At the same time, the shipper who desires to obey the law sees some rival selling merchandise to his customers at prices he cannot meet, and he knows very well that he is securing concessions from some railway to enable him to do this. The railway agent and the shipper who wish to obey the law sit down together and look it over. What relief is there for them? They can complain of their rivals, possibly convict them under the interstate commerce law and send them to the penitentiary, but such action would bring down upon them the condemnation of the public, and would ruin their business; for, as I stated before, the public does not believe in this severe feature of the law, and will not support anyone who enforces it. The result is, these men in despair are driven to do just what their opponents are doing—they become lawbreakers themselves. I have drawn no fancy picture; it is what is occurring every day around you. Boards of trade, commercial bodies and conventions have repeatedly reported on it, and all have come to the same conclusion; and yet, for some inexplicable reason, congress has failed to act.

"All of us who have any interest in our country who desire its prosperity, are interested in the solution of this great question. It is not a time for the demagogue to howl about corporations. It is not a time to talk about the wrongdoings of railway managers. There are always some, in any business, who will not do right, and there always will be, but the great mass of railway managers to-day, I assure you, are honestly seeking a solution of this question as are you or any member of the legislative body. I believe I voice the belief of a very large majority of them that the two provisions I have mentioned are necessary and will lead to the settlement of this question. If this body will join and heartily endorse this course and work for it, its accomplishment can be attained. We have unwittingly in this country applied to railway laws that it was never intended should be applied to transportation companies of this nature. We have gone back and taken decisions that were wise a hundred years ago, when civilization was in its infancy and when the masses needed certain protection, and have endeavored to apply these same principles to the great transportation interests of modern times. The courts, unfortunately, have followed in that line. Every business man, every statesman, knows that it is a mistake, that we have here an immense interest such as the world has never seen, and the principles which should govern it must be worked out in harmony with the age and the needs of this country. There should be no friction between the interstate commerce commission and the railroads; there should be none between the state commissions and the railroads. There has been too much of a feeling with the bodies that the railroads were against them. In the contest with railroads, in the courts, the commissioners have drifted away somewhat from the ground they ought to stand on; that is, they should be the friends of the railroads instead of their enemies, and should aid in securing the proper legislation, and the railroads, in turn, should give their support to make such legislation effective. I believe it can be done in no better way than by the true method I have pointed out. First, the change of the criminal section; second, authority to contract and divide business. Either one of them would be of great advantage, but we ought to have both. There also should be such legislation as will give more force to the recommendations and orders of the interstate commerce commissioners. Instead of trying to break down the commission the railway officials should try to build it up, should make the commission its aid and use it as a bulwark of strength in congress and in the states to beat back the tide of populism that is rising continually against them.

"I beg of you, gentlemen, to take these things to heart. If the thoughts that I have suggested are wise and commendable, they solve to your judgment, then put them in such form as is proper and present them to congress with your recommendations, and I have not much doubt but that they will be made into law. Some people will oppose them through selfish interest or for political reasons; there will be some railway managers who fear the loss of their present power and who can see great trouble in the future, who will oppose them; but why, in reference to such an enormous interest as this, wait for everyone to agree? Take the great mass of thinking men, what you yourselves approve, and put it into the shape of a law and let us try it. If it accomplishes its object, it will be a fortunate day for this country. If it accomplishes but a little of what we hope, we shall indeed have made a success. If we are mistaken and it does no good, we at least shall have the satisfaction of having made an honest effort in the right direction."

THE THREE CENT COIN.

A Little Joker Which Bothers Change Makers and Makes Trouble All Around.

"Next to a gold dollar," said a business man, "there is nothing in the line of coins I detest quite as much as the three-cent piece. There is no call for its existence and the proper authorities, in my opinion, should call them all in, and melt 'em up. Now, here is a three-cent coin. Observe that it is of the same size as a dime, and when the light is poor, it has the same general appearance as a dime. Undoubtedly some car conductor gave it to me for a dime and I accepted it at that value.

"I have been carrying it for a week in my small change overcoat pocket. Last night at the Park row station of the L road, I gave it to the ticket seller and asked for two tickets, thinking that it was a dime. He pushed it back through the little window with an ironical smile and never a word. I asked his pardon and promptly gave him the proper coin, but I knew he thought I was trying to work three cents off on him for ten.

"Later on in the evening, I was returning to my home in Brooklyn, and without looking at it, I thoughtlessly drew my three-cent piece out of my coat and passed it to the bridge ticket seller, with a request for four tickets. There was sarcasm in the tone of his voice as he requested me to 'guess again,' and I was about to lose my temper when I glanced down and saw my three-cent piece lying before me.

"I made good again and once more dropped my despised coin back in my pocket. This morning when I boarded a car I put my hand in the same pocket, which contained at least a dollar in change, and handed the conductor, as I supposed, a dime. I never stopped reading my paper until the conductor, in a voice of mild protest, remarked: 'They don't go here,' whereupon I meekly hunted for a nickel. Now could anything be more exasperating?

"It seems to me that Uncle Sam should not permit such an absurd state of affairs, for those three-cent coins place good citizens in very embarrassing positions. I vote to call 'em all in, and I know that most all men voice my views."—Brooklyn Eagle.

NO WAR FOR WASH.

Even Life Insurance for His Intended Wife Couldn't Reasonable Him to the Cause.

Wash Howard, a young colored man of ability as a shiner, has a stand on Vine street. Before he came to town he was indirectly connected with a militia company in some town up the state. His rank was Sergt. Shiner, and when the company went to camp Wash went along. It is needless to say that he enjoyed himself hugely, as he had a uniform of his own design, bearing on the sleeves in yellow cloth a blacking brush, rampant.

Last week his old captain was in the city, and he ran across Wash. About the first thing Wash talked of was the war.

"What you think, cap, is dey goin' ter be wah fuh shuah?"

"I wouldn't be surprised, Wash," was the answer, "and you'll have to go."

"What I have ter go fuh? I hain't got nuffin agin dem Cubians and dey ain't got nuffin agin me, I reckon."

"Well, in case of war, you know, we can't choose. We have to go when duty calls us."

"Yessuh, dat's right, but den when you got a likely colored girl on de string den it hain't no fun."

"Never mind that, Wash. You just get your life insured and marry the girl, and when you are killed she will get the money and be well provided for, to say nothing of a pension."

"Dat won't do dis niggub any good. She'll just get married agin, and den the two uv 'em will blow in all the stuff. Do you remember ole Hen Jesse. Now dat ole niggub had some life insurance all on a big piece uv papub, an' he married a spry young yellin' girl, an' she neveh gave him enny peace. Not a bit. She dun ax him all der time what dat life insurance foh, and kep' a pesterin' him till he gone off an' got sick an' des natchully died. Dat's what he did. An' if I got enny life insurance dat colored girl would nebbeh be satisfied till I die. No, sub, if I got ter go tuh wah der'll be no widduh nor any insurance. Dat's right."—Cincinnati Commercial Tribune.

To Make Yeast Cakes.

Put a handful of hops in two quarts of boiling water; strain the boiling hop water over two pounds of flour and beat it until smooth. While it is warm add two tablespoonfuls of salt and half a teaspoonful of sugar. When cool stir in a pint of yeast. After the yeast has become light stir in as much Indian meal as it will take to roll it out in cakes and place on a cloth to dry, turning often. At the end of a week they may be put into a bag, and should be kept in a dry place. Do not let sour draft blow over them the first two days.—Cincinnati Enquirer.

The Qualifications Needed.

Prun—What sort of a man should a fellow be to succeed in the Klondike? Dr. Bolus—Well, I've never been there; but from all I hear I should say that a cross between Dr. Tanner and a polar bear would get along very nicely.—Puck.