

IT PAYS TO BORROW MONEY TO BUY A MANURE SPREADER

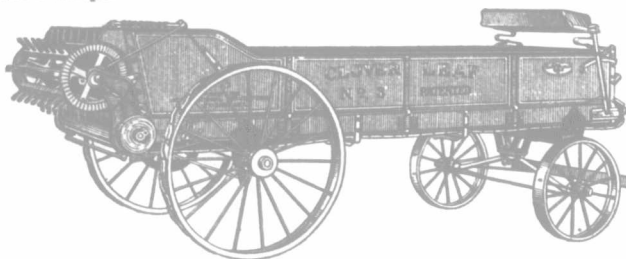
IF you do not have to borrow, so much the better. But in any event have a spreader of your own this year. The increase in the first crop through the use of your spreader will more than pay the principal and interest. It will cut down the labor of manure spreading. It will make the work agreeable. There will be no waste of manure. You will have a more fertile soil for future crops.

A manure spreader should be considered as a permanent investment, not as a running expense.

For the only way you can get all the value out of the farm manure every year is to use a spreader. There is absolutely no comparison between results produced by hand spreading and machine spreading.

The Cloverleaf Endless Apron Spreader
The Corn King Return Apron Spreader

CANADIAN BRANCHES: Calgary, Hamilton, London, Montreal, Ottawa, Regina, St. John, Winnipeg
INTERNATIONAL HARVESTER COMPANY OF AMERICA, Chicago, U. S. A.
(Incorporated)



You will make no mistake in buying either one of these right working, durable I. H. C. spreaders. I. H. C. spreaders are not built excessively heavy, but they have the strength required by such machines. The draft is as light as possible in any spreader.

The machines differ in certain features, but each have good strong broad tired wheels, simple and strong driving parts, are easily and conveniently controlled, and do first-class work with any kind of manure.

A n y I. H. C. local agent will supply catalogs and explain the distinguishing features of each machine, or show you a machine at work so that you can choose wisely.

If you prefer, write direct to our branch house nearest you for any information desired.

ALCOHOL AS A SOURCE OF POWER.

One distinct advantage of alcohol as a source of power is that it can be made on the spot—that is to say, wherever it may be wanted for fuel purposes. Furthermore, it can be manufactured most cheaply in the tropics, where coal and petroleum are lacking. It will undoubtedly be produced in immense quantities in hot latitudes from the cassava—a plant with big tuberous roots, which yields several times as much starch as does the common potato. There are, however, many other materials, such as molasses and sugar cane stalks, which are available in warm countries for alcohol making.

Recently, some very interesting tests were made by the technologic branch of the U. S. geological survey, with alcohol in a slightly-modified gasoline engine, alcohol being used instead of gasoline. These tests have proved that in an engine of the kind thus modified, alcohol may be so utilized as to give it as high a fuel efficiency as gasoline. Hitherto, it has been recognized as possessing only about one-half of the efficiency of gasoline.

Every gallon of petroleum taken out of the earth signifies a lessening of the available supply by just that much. With alcohol, the case is exactly opposite, because the more of it people use the greater will be the production of it. Furthermore, it is going steadily down in price, as methods of making it are improved, while mineral oil is sure to go up. If, as is the case, alcohol is now manufactured in Cuba, and sold for eight cents a gallon, it can be made in other tropical countries for as little and should not cost very much more in the United States, if the Congress chose to remove the tariff from it.

When one reads in the newspapers about the "petrol" which is commonly used in Europe for running automobiles, one should not imagine that the stuff referred to is petroleum. It is, as a matter of fact, benzol, which is a by-product of the coking of coal. The German Government has been making experiments with a view to utilizing this "petrol" as fuel for warships. But the same objection applies to it—the available supply must give out before very long. Not so with alcohol, the production of which can be augmented to any extent, and which seems destined, say the experts, to obtain recognition as universal fuel.

Alcohol is, strictly speaking, an agricultural fuel. It is a farm product—as much so as wheat or corn. The possibilities of its usefulness seem well-nigh unlimited; but, so far as its maritime employment is concerned, one does not need to look very far ahead to see at every sea port a supply station, with gigantic tanks containing alcohol for sale to ships. When provision of this kind is made, all of the arduous labor of coaling will be done away with, and vessels needing a fresh supply of fuel will have only to steam into a harbor, connect with a tank through the medium of a pipe, and fill up according to their needs.

ELECTRICITY IN AGRICULTURE.

Sir Oliver Lodge is to be congratulated on having again called the attention of practical men to a valuable agricultural principle that was in danger of being ignored. It has

been proved experimentally beyond all possibility of dispute that crops are able to be very largely increased by charging them with electricity in the course of their growth. To do this is practicable on a large scale, at any rate in England. The field to be treated is covered with a number of wires stretched across it by telegraph poles. The wires are connected up to a dynamo driven by a small power engine. The electric current thus produced is transformed from a low to a high potential, and the plants become electrified oppositely to the wires. As the wires have a very small electrical capacity, it is practicable to electrify them to a very high degree with a very small expenditure of electricity. The figures quoted by Sir Oliver Lodge show that the crops increase under this treatment by as much as 30 and 40 per cent., and in the case of wheat produce a more highly-priced flour. The same principle has been applied successfully to strawberries, cucumbers, raspberries, beans, cabbages, celery, tomatoes, beetroot, and carrots, so that it may be said to be of general application. The experiments were actually conducted by Mr. Lionel Lodge, Mr. Newman, and Mr. Bomford. The theoretical knowledge of the principle dates back to 1746, and its development has been hitherto prevented only by the cost of electrical apparatus. The cause and mechanism of this increased yield remains at present obscure, though Berthelot has suggested that the process acts by enabling the plants to utilize the atmospheric nitrogen.—*Standard of Empire.*

A lawyer once asked a man who had at various times sat on several juries, "Who influenced you most—the lawyers, the witnesses, or the judge?" He expected to get some useful and interesting information from so inexperienced a jurymen. This was the man's reply: "I tell you, sir, 'ow I makes up my mind. I'm a plain man, and a reasonin' man, and I ain't influenced by anything the lawyers say, nor by what the witnesses say, nor by what the judge says. I just looks at the man in the docks and I says, 'If he ain't done nothing, why's he there?' And I brings 'em all in guilty."

Durable and artistic construction gives permanence to the clear singing tone and the perfect action of the Gourlay piano. It is an instrument that retains its musical qualities throughout long years of constant use.

STACKING GRAIN

After a person has stacked grain for a number of years he usually finds a method of his own which differs more or less from those of others. As a general proposition, however, stacking is carried on much in the same manner throughout the grain growing sections of this western country, although we see a vast difference in the way the stacks are built. Some shed water to perfection while others seem to soak in every drop that falls. It is a well known fact that large quantities of grain are annually lost on account of poor stacking and many of our farmers have a serious jolt in this respect each season. The first thing to be considered is the location for the stacks. It is scarcely necessary to say that a high place should be selected although one frequently sees stacks erected on low spots. To begin a stack build a round shock on the spot intended to be the center of the stack. Set these bundles as nearly perpendicular as possible. Continue to set bundles around this center, one row as a time, giving each row a trifle greater slant than the one preceding and let the top of each bundle point directly toward the center of the stack. After sufficient rows of bundles have been set up in the manner indicated and the circumference of the butt is large enough, the outside row will be found quite slanting. A row of bundles should then be laid on the flat

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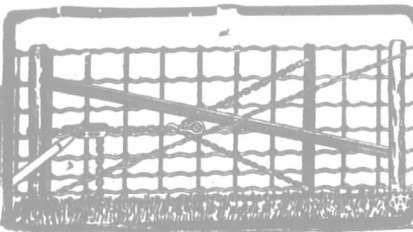
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HOW TO BUILD A GOOD FENCE

Everyone intending fence building should send for our folder on Erecting Fences. It's full of valuable information on fence building; tells how to erect woven wire fencing quickly and substantially, describes the manufacture of fence wire and has an article quoted from bulletin of U. S. Dept. of Agriculture on concrete post making, showing how these durable posts can be economically made at home. Don't fail to write for a copy. It's free.

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