

# John Deere Model B Disc Harrow

A Disc Harrow that will do work under all conditions is a very desirable tool to have on the farm.

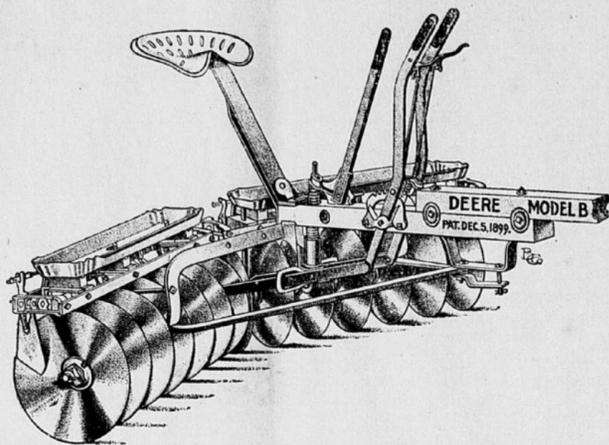
**F**EW, if any of those on the market today answer all the varied requirements met with, but in the Model B, we are confident all of the objectionable features of the many ordinary disc harrows have been successfully overcome.

In the Model B, we have the only flexible disc made today. What we mean by flexible is that if you strike a rock or a stump with one side it raises up and goes over and the other side stays down to business.

Another good feature is in the scrapers. We have the best scraper made. WHY? Because they are made to sweep from the center to the outer edge, then you can lock them away from the disc so there is no friction.

The Model B can be equipped with a SEEDER ATTACHMENT.

Come in and be shown the BEST DISC IN TOWN.



**REMEMBER**  
**THE DEERE NO. 9**  
**Edge Drop Planter**

The original edge drop--a planter that will put three grains in a hill 95 to 98 times out of a hundred, and will not string the corn. It combines extreme accuracy of drop with simplicity and convenience. Fewer parts and less working joints than any other planter. Always ready for either hilling or drilling.

**SEEDERS! We have them**

**WE HAVE THE** **Tongueless Disc Harrow** **WE HAVE THE JOHN DEERE** **Riding and Walking Plows—all sizes**

We also have a new thing in a CORN GRADER which only costs \$1.00 and does the work fine. Come in and see it.

If you are in the market for Hand Made Harness, come and let us show you some nice work and some GOOD MATERIAL.

## H. A. Wright

**OUR DIPPING TANK**

Is full of Neats Foot Oil and is oiling lots of Harness.

**Bring Your Old Harness In** and let us oil them.

### THE USE OF CEMENT

A Paper on the Use of Cement as Available in Building of County Bridges and Culverts.

At the last Decatur County Farmers' Institute held at Lamoni in December, Mr. Henry H. Flannagan, formerly of Garden Grove, now residing in Des Moines, made an address on the use of cement including its use in building bridges and culverts. Mr. Flannagan is an architect who has given the question considerable study and speaks authoritatively on the subject. So well pleased were those who heard his address that they requested him to prepare a paper on this subject, as his address was an impromptu one. He kindly consented and we publish it in full.

As time unrolls its perpetual calendar of days, months, years and centuries, we find similar changes in modes and conditions of mankind. In mediaeval ages the Knight, Warrior, General and King were most adored of mankind. Now our most adored of men are our great statesmen, scientific men and inventors. These men legislate, investigate and invent as necessity and occasions demand. Such men as Watt, Stephenson, Hudson, Morse, Bell and Edison have done more for mankind and the true advance of the world in general than all the bloody victories of ancient times.

Let us then, in this age of electricity, motor cars and Mar-outisms, consider the new Portland Cement Industry in the United States, which started with one small plant in 1875 with an output of 300 barrels annually and last year found over 90 plants with an output of 50,000,000 barrels. Everybody is aware of the immense increase in the steel industry, in the last 25 years, so let me compare the cement industry during the same length of time, with the steel: 1880, Portland cement output, 42,000 barrels, 1905, Portland cement output 32,000,000 barrels, 1880 pig iron output 2,800,000 tons, 1905 pig iron output 23,000,000 tons, that is, the pig iron output has increased six times, while the cement production has increased Eight Hundred times.

Why is this vast increase, which is one hundred and thirty times greater than the increase of the steel production? As lumber has gradually been getting scarcer and scarcer, year by year and the trusts a greater hold on the forests, lumber has climbed from \$8 to \$10 per thousand to \$28 to \$35 for ship lap. Also the quality of the lumber now is very poor, compared with the lumber sold twenty years ago. You will say, what do you know of cement that warrants all this production and sale? Come then, and for our answer we will go back to the Ancient City of Rome. Here they will show you a bridge laid up with lava dust (a natural cement when composed of melted lime stone) built 27 years before the birth of Christ yet still standing and in good preservation. The pyramids, Pantheon and numerous other structures teach us that good concrete is as enduring as time itself.

I shall only speak of cement in good roads work in regard to its uses in bridges and culverts alone. No road, is a good road, if it has a bad or dangerous bridge. There is an old saying, particularly applicable to people of a nervous temperament, they are continually crossing these bad bridges before they come to them. But each one of us will have to admit, however brave he may be, that there is a general sigh of relief as each dangerous bridge is passed.

Three years ago, I did not comprehend what the real meaning of good roads was. But last spring I had to make a drive which impressed it firmly in my memory. I started in a two seated rig to drive over a road which in dry

weather cannot be excelled in this part of the state. The frost was just gone out, which, followed by a heavy snow and rain, caused the bottom to fall clear out of the unworked road. We started on a stretch where no attempt had been made to make good roads, our buggy sank nearly to the hubs all the way. With only three in the rig, the horses had to pull so hard, that I feared our single-tree, double-tree or harness would give way. We passed two abandoned rigs on the road. One a single buggy and a wagon both of which were mired clear down to the axle. At last we crossed the county line, here we find a nicely crowned road, lately dragged. What a change we find, and although our horses are covered with mud and tired they trotted right along. The man having charge of this piece of road has the name of being a good road "crank". Now ever since I have had a profound respect and admiration for this and all other good road agitators and workers.

Let us now compare the merits, demerits, cost and maintenance of wood, steel and concrete culverts and bridges. Wood is cheapest at first cost and lasts 5 to 7 years and cost \$17.50. A culvert of corrugated steel, will cost in place, thirty to forty dollars with a life from 7 to 12 years. A re-inforced steel culvert with sixteen square feet of water will cost forty to fifty dollars. And I will say all of the above are figured on an opening of sixteen square feet, but in the concrete culvert the form lumber is not included in the cost as this lumber can be used over and over again.

I wish every county in Iowa had a good mixer and a concrete gang and would build only twenty culverts and bridges each year. In twenty or twenty-five years the bridge tax would be practically null, and the county filled with the bridges and culverts good for a thousand years, if honestly made. And the greatest feature of concrete, lies in the fact, that they never need paint, flooring or any kind of repairs after they are once in. In my opinion, the Highway Commission should have standard plans made and on a scale of one-fourth of an inch to the foot. Such plans would be of use to every county in the state.

But when a bridge is to be built, of over twelve feet opening, my opinion is that the most satisfaction will result if a regular concrete bridge engineer is employed to furnish the plans. Concrete has had a number of failures, but in every case which has been investigated, the failure resulted from a careless or incompetent design, or from a dishonest contractor robbing the concrete. Another point in favor of concrete structures is, that in most of the counties we have the sand gravel or broken stone. And consequently all the money except for the cement is spent in the community. I prefer a good hard flinty gravel to broken stone but with gravel we need a little richer mixture because there are less voids, and consequently a greater amount of material for the cement to coat.

For the cement only the best American Portland Cement should be used. Any of the standard brands are good, such as "Atlas," "Universal," "AA," "Red Ring," "Owl," "Sunflower" or "Iola." This "Good Roads" movement has just started. Its first advocates were all known as "Cranks." Its results are now known to nearly all of us and who amongst us will say, give back the good old road full of mud and water with no drainage and no dragging and filled from one end to the other with its rotten and unsafe culverts.

In the Municipal Engineering Magazine, I noticed, that New York state has appropriated \$50,000,000 for good roads, and for all improvements, the state bears one-half of the expense and the county bears one-half. The state of Pennsylvania has appropriated \$8,000,000. The state bears three-fourths of the expense and county one-fourth.

Concrete bridges I shall divide into five classes, as follows:

- Box culverts 1 to 5 feet
- Arch culverts 1 to 20 feet
- Slab culverts 12 to 40 feet
- Concrete girders 30 to 50 feet
- Arch spans 50 to 200 feet

A good engineer, a good foundation, and honest concrete will give you a bridge which should last a thousand years and one of which you all will be proud. We were very proud of our steel bridges when they were put up. They are a continual source of expense after they are put up, a new floor every five to seven years, repainted every seven to ten years and if on a pile foundation a new foundation every ten to eighteen years. We will say adieu to the steel. A good concrete bridge will cost about twenty to fifty per cent more than the steel but when you consider that the money for concrete is mostly all spent in the community an extra expense is warranted if the contract is fulfilled.

I will say a few words on the mixing of concrete. In mixing measure out the amount of cement and sand and thoroughly mix dry, then add from 12 1/2 to 25 per cent of water in bulk, the right amount necessary can only be judged by experience. This will make a slushy concrete that can be poured like mortar. With broken stone, so that the coarsest stone will pass through a 1 1/2 inch and the minimum size a 1/2 inch ring, the proportions of cement, sand and broken stone is 1:2:4; and is used for beams, floors and girders. If gravel is used use 1:3 or 1:4 according to the fineness of the gravel. In making foundations the proportions are 1:3 1/2, 7 for broken stone and 1:5 to 1:7 for gravel.

For re-inforcement of concrete with steel I prefer bars that have a uniform cross-section like the Johnson or Thacker bar. By knowing the crushing strength of a specified concrete it is an easy matter for an engineer to proportion the thickness of his slab and the amount of steel for given load.

The railroads are now using concrete bridges and if it is good for railroads it is certainly good for highways and I hope that I may see many culverts and bridges of concrete in Decatur and all the southern counties in the next few years.

#### DON'T WAIT

Take Advantage of Leon Citizen's Experience Before It's Too Late.

When the back begins to ache. Don't wait until backache becomes chronic. Till serious kidney troubles develop. Till urinary troubles destroy night's rest.

Profit by a Leon citizen's experience. Mrs. Henry McKern, formerly living in the north part of town, says: "I do not hesitate to recommend Doan's Kidney Pills to anyone having children with weak kidneys. One of my children has been bothered with weak and inactive kidneys since a very small child. I procured Doan's Kidney Pills at Van Warden's drug store and they were taken according to directions, and proved to be a remedy of excellent merit and did all that was claimed for them. I believe that anyone troubled with weak or disordered kidneys who will give Doan's Kidney Pills a thorough trial, will not be disappointed in the results obtained."

For sale by all dealers. Price 50 cents. Foster-Milburn Co., Buffalo, New York, sole agents for the United States.

Remember the name—Doan's—and take no other. Itching piles provoke profanity won't cure them. Doan's ointment cures itching, bleeding and protruding piles after years of suffering. At any drug store.

### Frank Elmore Shot by Geo. Griffin a Brother-in-Law.

Tuesday evening late the news came to town that Geo. Griffin had shot and wounded Frank Elmore, his wife's brother.

The particulars as near as can be had are that Geo. Griffin had been over to see his brothers, Al and Wm. Griffin and coming home he passed through Frank Elmore's farm where he was loading fodder on a wagon. Geo. began to talk about a land trade that Will Griffin and Elmore were on and which Elmore seemed to be holding back about. Geo. helped Elmore to his feed lots with the fodder, talking all the time about the trade until warm words passed when Geo. pulled a revolver of small calibre and began firing at Elmore four or five times, one shot taking effect just above the knee, the ball passing through and was easily cut out a short time afterwards, Elmore coming to town for that purpose. Geo. phoned to the constable, Geo. Peterson, and gave himself up.

This is a bad affair and is to be regretted by all their friends on both sides and it is to be trusted the affair will not get worse.

Elmore owns the Grandstaff farm adjoining Griffin on the east and unless they come to terms of peace matters are liable to grow.

While the wound is painful yet nothing serious is expected of it unless blood poison sets in. Frank is at his boarding place Frank O. Campbell's, resting easy.—Pleasanton Index.

#### Stimulate the Blood.

Brandreth's Pills are the great blood purifier. They are a laxative and blood tonic, they act equally on the bowels, the kidneys and the skin, thus cleansing the system by the natural outlet of the body. They stimulate the blood so as to enable nature to throw off all morbid humors and cure all troubles arising from an impure state of the blood. One or two taken every night will prove an invaluable remedy.

Each pill contains one grain of solid extract of sarsaparilla, which, with other valuable vegetable products, make it a blood purifier of excellent character.

Brandreth's Pills have been in use for over a century and are sold in every drug and medicine store, either plain or sugar-coated.

The stock sale of J. W. Walker held on March 5 was one of the most successful sales ever held in this part of the state. It was well attended with people who wanted to buy good stuff, and knew that Mr. Walker had it. His stock were all high bred, they show for themselves. Corn sold for 51c; seed corn 70c. One Percheron colt sold for \$152, one mare \$245, and everything in proportion. Mr. Walker's sale amounted to \$2500. But this is a very small amount when you come to think that this is the products of twenty-five years hard work and experience. Mr. Walker is one of Livingston county's wealthiest and highly respected farmers having sold his farm, we are afraid we will lose him from our community, but wherever he may go we wish him abundant success.—Chula, Mo., News.

#### Given up to Die.

B. Spiegel, 1204 N. Virginia St., Evansville, Ind., writes: "For over five years I was troubled with kidney and bladder affections which caused me much pain and worry. I lost flesh and was all run down, and a year ago had to abandon work entirely. I had three of the best physicians who did me no good and I was practically given up to die. Foley's Kidney Cure was recommended and the first bottle gave me great relief, and after taking the second bottle I was entirely cured." Why not let it help you? Bell & Robinson.

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lengthens the life of the wagon—saves horsepower, time and temper. Best lubricant in the world—contains powdered mica which forms a smooth, hard coating on axle, and reduces friction.  
If you want your outfit to last and earn money while it lasts—grease the axles with Mica Axle Grease.  
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**W. J. SMOTHERS.**  
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All work done on short notice and satisfaction guaranteed. Bring in your work.  
Two doors east of the Statzell Produce House.

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**in the European**  
**Edition of the**  
**New York Herald**  
reaches men and women who are abroad to spend money. It comes to them as a friend. It is read with care. Its suggestions are welcome.  
There is no medium that an advertiser can use that nearly approaches it in business bringing power.  
Names of persons registering from cities other than New York will also be transmitted to their home newspapers for publication.