THE PLANET

SATURDAY....DECEMBER 5, '08.

ROAD AND FARM IMPROVEMENT

CONCRETE CULVERTS.

Easily and Cheaply Built—Some Details of the Work.

The greatest trouble heretofore in making concrete culverts, drains, etc., has been to remove the core, which is very easily remedied by building the core, as illustrated, in four sections, two sections being joined together, so that when removing from the completed culvert it folds together and is removed in a moment's time. Again, by having the core circular in form you gain greatly in the strength of the completed work, as the arch will withstand a greater pressure than the usual square form used for this purpose.

This simple machine can be built by anyone, declares A. A. Houghton, in Orange Judd Farmer, and is made as follows: At both ends of a board ten inches long, 2¾ inches wide and one

Fig. 1.—Construction of Core.

inch thick, make a mark three-quarters of an inch from the bottom. Place this beside a wide board of same thickness on your workbench, and after setting your compass at seven inches, draw a quarter circle from one of the 3-quarter-inch marks to the other; this will describe just one-fourth of a circle 14 inches in diameter. The board is cut along the circular mark just drawn.

Now on the bottom edge make a mark at each end of this board just three-quarters of an inch from the end along the bottom edge; draw a line from this mark to the end of the circular cut just made and saw off this little three-cornered piece, which miters the board at an angle of 32 degrees, and so allows the four segments of circle to fit together to form the completed circle. Use the board you have just cut as a pattern and cut 15 more exactly like it.

Now take one-inch strips which are seven, eight or ten feet long, whatever length you desire to culvert, and nail to these circular pieces, as shown in Fig. 1. Place one of each of the quarter segments of circle at each end and two at equal distance apart in center, and when you have nailed the strips as illustrated one-fourth of it is finished. Two of these sections are joined together with strap hinges, as shown in Fig. 1, a hinge being placed in each of the four corners where the sections are joined together, and which allows them to fold down together.

Now for the folding brace to hold the sections upright while making culvert, use eight pieces of board one inch square and five inches long; at one end of each one cut a long, slanting miter, as illustrated in Fig. 1, to allow them to fold nearly together. Join two of each together

Fig. 2.—Removing the Core.

with hinges in center as completed brace, and at each end, as illustrated in Fig. 1; the two hinges at ends of completed braces are fastened to sections, as illustrated, and hold them upright or allow them to fold down as required.

The core is now complete and will mold an opening in culvert 15 inches in diameter. When a larger or smaller opening is desired you can simply change measurements in cutting the material to make the size desired.

In operation, boards are set at each end of the culvert, also at sides; the bottom is filled with concrete mixture to the depth of two inches; then the semi-circular forms are set in place, with edges together, and the concrete mixture filled in around them and on top to the depth of three, four or six inches, according to the pressure that is to be placed on the culvert. For ordinary usage a four-inch depth on top is sufficient.

When finished the concrete is allowed to set or harden for several days, when the side boards are removed and the braces on center forms or core pushed back, folding the forms together, so that they can be easily removed, as illustrated in Fig. 2. With this simple machine a neater, stronger and more satisfactory culvert can be molded, with less labor and more certain results than with any square form.

Poultry Products.

Secretary of Agriculture Wilson places the value of poultry products produced in the United States last year at $600,000,000, which is $100,000,000 more than the value of the wheat crop.

WORK THAT PAYS.

E. L. Vincent Tells How He Did Little Investigating That Proved Valuable.

Being of an inquiring turn of mind, I once upon a time took it into my head to follow the roots of a couple of hills of corn to their source, with a view to determining as well as I could what kind of cultivation we ought to give the plant while it is in the process of maturing, and I must say that some things I learned were an eye-opener to me.

It was along in August that I did this investigating. By that time the stalks were perhaps fully grown; the plant had, in fact, done almost all it could do in the way of growth. All that was left was to bring the ears to perfection.

With a good hoe and a pick I carefully traced the roots of two hills of corn, one in one row and one in that adjoining, directly opposite the first one. I had not gone far when I made my first discovery. And that was that I had all my life long been hurting my corn crop by using cultivators that ripped things up away down into the earth.

That seemed to be the thought in early times, to dig down as deep as possible. The first cultivator I remember seeing was one with a stiff, rigid frame, bolted together so firmly that it could not be adjusted to the width of the rows. The teeth of that cultivator were long, scoop-shovel shaped things, running deep by nature; and we used to think we ought to shove them down half way to China or we were not doing anything worth while. Now, I discovered that all, or almost all, such work does is to tear the fine roots of the corn plant loose, really setting it back, instead of furthering its progress.

After that cultivator, came another still more illy contrived, so far as its use in the cornfield is concerned, than the first. That we knew as the horse-hoe, a good tool in its place, but that place is not, and never was, the cornfield. That had a regular shovel plow running ahead, with two legs following, and two more that might be put on if a man wanted to do still greater damage to his corn crop.

The thing that impressed itself on me was, that only light cultivation is needed in the cornfield. What we need is a tool that will thoroughly dig up the soil on the surface and not run more than two or three inches deep.

Another discovery I made was that the roots of the corn plant are not all directly under the stalks. I found them far out in every direction, like the roots of a big tree. A little thought will tell us why this should be so. The cornstalk is heavy, especially when it is well laden with ears. When the wind strikes it, there is a strong purchase and if not well braced, the whole hill is likely to go over.

I remember how this worked one year when we were troubled terribly by the gray grub which works at the root of the cornstalk. Hundreds of cornstalks went down in our field that year; and always when we dug down at the base of the stalks we found that the small roots had been cut off by the grub. Nature is wise. She provides the corn plant with wide-spreading roots. Still another reason for this is to be found in the fact that corn needs a great deal of fertilizer to bring it to maturity. Here and there, everywhere, the fibrous roots run, in search for his food. If they do not find it, a small crop is the inevitable result.

Deep cultivation hinders the plant from getting this sustenance so necessary to its life and growth. Even when we send the teeth of the cultivator far down out in the middle of the space between the rows we are injuring the growth of the plant and so lessening our chances for harvesting a good crop.—Farmers' Voice.

AGAINST THIS WINTER'S COLD.

How You Can Keep the Water Tank Free from Ice.

If builders of cement tanks would make the inner edge of the top which is six inches wide, about one inch lower than the outer edge, and in freezing weather sprinkle salt on the top, says Prairie Farmer, they would find that it will work its way down on the

Tank with Beveled Edges.

inner edge of the tank, and loosen the ice from the same, so that it can readily be removed, thus obviating the necessity of a tank heater.

FARM GLEANINGS.

Instead of raising weeds in the garden grow some late crops. After the early vegetables are out of the way raise something else that will mature late in the fall.

Use the split-log drag on the earth roads. It has proven to be successful and if there is any one thing needed in the country it is better roads.

Whether 'tis better to feed or to sell is the question agitating the corn raisers.

Cement pits filled daily with fresh water makes a good clean wallow for the hogs, particularly when the weather is warm.

Irish Cows Good Milkers.

Irish cows yield from 300 gallons of milk to over 1,000. In one case the yield was 1,469 gallons.

Canada Larger Than United States

The total area of the United States is 3,002,340 square miles; of Canada 3,303,320 square miles.

BERNARD SHAW'S EPIGRAMS.

The golden rule is that there is no golden rule.

—

The ideal wife is one who does everything that the ideal husband likes—and nothing else.

—

Democracy substitutes election by the incompetent many for appointment by the corrupt few.

—

He who believes in education, criminal law, and sport needs only property to make him a perfect gentleman.

—

Do not waste your time on social questions. What is the matter with the poor is poverty; what is the matter with the rich is uselessness.

—

A gentleman of our days is one who has money enough to do what every fool would do if he could afford it—that is, consume without producing.

—

Our plan is to govern by humbug, and let everybody into the secret. The French govern by melodrama, and give everybody a part in the piece.

—

Man gives every reason for his conduct save one; every excuse for his crime save one; every plea for his safety save one, and that is cowardice.

—

We live in an atmosphere of shame. We are ashamed of everything that is real about us—ashamed of ourselves, of our relations, of our incomes, of our accents, of our opinions, of our experience. The more things a man is ashamed of the more respectable he is.

ADVICE TO THE RAW YOUTH.

Better homespun suits than breaches of promise.

—

A breach of extraordinary promise often results in alimony.

—

A youthful face is often an asset, and after experience, ascetic.

—

A girl loves well-creased trousers, and her mother watches them.

—

A painstaking refusal is sometimes worse than a peremptory rejection.

—

There is safety in numbers, but that applies to your bankbook as well.

—

Be an eccentric and let her admire you. Then you're safe either way.

—

Remember that the more radiant the socks the cooler should be the head.

—

On your knees is no fit talk for a gentleman to hear. Tell her you're a big boy now.

—

Some sacrifices can be afforded in affairs of the heart. (Id. exception, page 1 of the notes.)

—

Making funny faces is a nice, charitable way of giving a girl a giggle, but make sure you can afford the sacrifice.

—

Do not loiter at the sill; it's compromising. If you cannot tear yourself away you will be called a "stick plaster."

SUNFLOWER PHILOSOPHY.

When a woman wants to be in bed by ten o'clock she should begin undressing by nine.

—

When a man takes off his socks you can see a scar on his toe where he cut it as a boy.

—

What has become of the old-fashioned woman who called the children's crying "bellering?"

—

One of the funniest things we know of is the manner in which a young man drops out of the social world when he gets married.

—

We would like to know some one who is generally admired. We never knew any one who was not frequently abused like a thief.

—

When a wife dies the husband nearly always says: "Well, I was a great trial to her. I might have done much better: I would do better if I had my life to live over." But when a husband dies the widow nearly always says: "Well, I did my duty."—Atchison (Kan.) Globe.

WORDS OF WISDOM.

Go forward, face new times, the better day.—Browning.

—

"Those who do most in the world are those who love most."

—

Happiness is a perfect activity in a perfect life.—Aristotle.

—

A happy disposition is largely a disposition to make others happy.—Puck.

—

One life permeates all things, and there is no corner of the cosmos too remote to feel its heart-throb.—Henry Wood.

—

Nothing can work me damage except myself; the harm that I sustain I carry about with me and am a real sufferer but by my own fault.—St. Bernard.

—

I have always thought the actions of men the best interpretation of their thoughts.—Locke.

Plenty of Applicants.

"Last week I decided that I needed a little training down," said the amateur athlete, "so I advertised for a coach."

"Did you get one?" queried his friend.

"No," replied the a. a., "but 5' hackmen called."—Chicago Daily News.

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WITH THE SAGES.

Nothing misfortunate matters much if so be you can smile about it.—Landor.

—

No one is useless in the world who lightens the burden of it to anyone else.—Dickens.

—

Character is, for the most part, simply habit become fixed.—Rev. Chas. H. Parkhurst.

—

We may measure our road to wisdom by the sorrows we have undergone.—Bulwer Lytton.

—

Had we not faults of our own we should take less pleasure in complaining of others.—Fenelon.

—

A happiness that is quite undisturbed becomes tiresome; we must have ups and downs.—Moliere.

—

Labor to keep alive in your breast that little spark of celestial fire called conscience.—George Washington.

—

It will generally be found that the one most active in fault-finding is the most in need of self-reform.—Royston.

—

You must love your work, and not be always looking over the edge of it wanting your play to begin.—George Eliot.

—

He who comes up to his own idea of greatness must always have had a very low standard of it in his mind.—Ruskin.

—

Pardoning mercy is of all things in the world most to be prized, for it is the only and sure way to happiness.—Spurgeon.

—

There is no pleasure beyond the rules of righteousness; there is no pleasure in what injures another.—W. L. Watkinson.

—

It is with men very much as it is with fragrant flowers; the more they are bruised the more abundant their perfume.—Abellie.

—

Fun is good, truth is better, and love best of all.—Thackeray.

CYNICAL PHILOSOPHY.

An epitaph is generally epi-taffy.

—

Some men do their best, even their best friends.

—

A heavy sermon maketh a light collection plate.

—

Platonic affection is seldom practiced on a girl if she has money.

—

A woman's heart strings are almost as easily broken as her shoe laces.

—

Fools rush in where angels fear to tread, but angels can use their wings.

—

A fellow may think of a girl every minute, but really second thoughts are best.

—

Somehow or other most men who marry brunettes prefer blondes, and vice versa.

—

Some men belong to church and others imagine that the church belongs to them.

—

The fellow who spends all his time looking for four-leaved clover won't have much luck.

—

A man should never marry until he is thoroughly equipped to fight the battles of life.

—

Occasionally you hear of a young man who is able to make a living in spite of a college education.

DYSPEPTIC PHILOSOPHY.

Nothing succeeds like success, unless it's the way failure fails.

—

There are more dead ones in this world than the undertaker wots of.

—

Nothing short of an autopsy would show what some men have in them.

—

The noisy man has plenty of friends if he can only make a sound like real money.

—

So long as women marry men to reform them, married life will not be monotonous.

—

When a man loses all his money it changes him so that lots of his old friends scarcely recognize him.

—

Many a man is considered lucky when the secret of his success is that he was born with common sense.

—

Tell a woman she is clever, and she will like you; tell her she is beautiful and she will be your friend for life.

—

The trouble with charity is that while it may begin at home it too frequently ends with some foreign missionary.

CHINESE PROVERBS.

Politeness before force.

—

If you bow at all, bow low.

—

Money makes a blind man see.

—

Better not be than be nothing.

—

Oblige and you will be obliged.

More trees are upright than men.

—

Gold is tested by fire; man by gold.—Unity.

Observant.

A small boy, walking out with his mother, noticed a colored woman carrying a baby, and said:

"Mother, if that woman is bringing her baby up on a bottle it must be an ink bottle."—Judge.

Brass Ones.

Miss De Style—I stopped at a lovely place last summer; plenty of fellows; honest, I got four rings.

Miss Gumbush—So? I didn't know there was a carousel out there.—Puck.

A Great Care.

Celia—Her hair turned perfectly white in one night from trouble.

Delia—Really? What was the nature of the trouble?

Celia—Chemical.—Judge.

Use of Leather Belting.

In putting up leather belting experienced machinists make it a point to place the hair inside, as it has a tendency to stick to the wheel and will wear longer.

A Contradiction.

"Judge," said the prisoner, "I have seen better days. I have never before even been threatened with arrest."

"Your second assertion," answered his honor, "contradicts the first. It shows you have never been connected with a big corporation or owned a [illegible]

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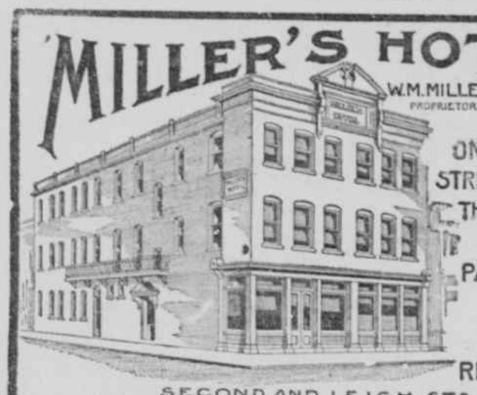
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