



Turn idle hours into concrete fence posts

EVERY farmer finds himself now and then with a few idle hours in which both himself and his help must look for "odd jobs" to keep them busy. Use these hours to make concrete fence posts. You can make a few at a time, storing them until needed. Then when you want a fence in the new field, your posts—everlasting, concrete posts—are all ready to use. The making of fence posts is only one of scores of every-day uses for concrete on the farm described in the book,

"What The Farmer Can Do With Concrete"

NOTE—This 160 page book will be sent to you free upon request. You do not have to agree to use cement or place yourself under any other obligation. Just send us your name and address. Address,

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BOILING GEYSERS.

What Causes the Spouting of These Natural Steam Engines.

Geysers are found in only three places in the world, according to a publication entitled "Geysers" issued by the department of the interior. These three regions are Iceland, where geysers were first discovered; New Zealand and the Yellowstone National park, in which these natural steam engines are more numerous and of greater beauty than in the two other areas mentioned. In the Yellowstone the geysers are found in detached geyser basins, or fire holes, as they were called by the first explorers, and the groups possess individual peculiarities which give character and interest to each locality. The most noted of these basins is, however, that known as the Upper Geyser basin of the Firehole river, one of the headwaters of the great Missouri. The whole floor of the valley is fairly riddled with springs of boiling water, whose exquisite beauty is indescribable. Light clouds of fleecy vapor curl upward from waters of the purest azure or the clearest emerald and, encircling rims of white marblelike silica, form fit setting for such great gems. A large part of the valley floor is covered with the white deposit of silica known as siliceous sinter, deposited by the overflowing hot waters. The weird whiteness of these areas, the gaunt white trunks of pine trees filled by the hot waters, the myriad pools of steaming crystal and the white clouds floating off from the chimneylike geyser cones form a scene never to be forgotten by those fortunate enough to behold it.

The intermittent spouting of geysers was long a riddle to scientific men. The theory, which bears the name of the illustrious chemist Bunsen, is now generally accepted. This theory is based on the well known fact that the boiling point of water rises with the pressure and is therefore higher at the bottom of a tube of water than at the surface. In a long and narrow or an irregular tube ebullition in the lower part is only possible at a much higher temperature than at the top owing to the weight of water column above it. If by the continued heating the lower layer of water attains the temperature at which it can boil steam is formed, whose expansive force lifts the superincumbent column of water, causing a slight overflow at the top, which shortens the column, so that steam is formed at a higher point and a further lifting and relief of pressure ensues, followed by an eruption.

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FODDER

By Department of Agriculture, Petrolia

No wiser and more profitable New Year resolution could be made for 1913 than a determination to feed the farm stock better and more economically than ever before. When we say "economically" we do not mean to scrimp them, that is extravagance, we mean to feed in such a way that the stock will respond more liberally for the food consumed and return larger profits to the herdsman. Some farmers feed year after year regard less of profit and loss and know not whether they keep the animal or the animal keeps them. Resolve that henceforth the animal must keep you or say "good bye."

The animal body is made up mainly of four classes of substances, water, ash or mineral matter, nitrogenous matter and fat. The proportions in which these substances occur vary with the age of the animal, its treatment and the functions which it is expected to perform. The tissues made up of these various substances are constantly breaking down and it is the object of the good feeder to replace and add to them with a minimum amount of expense, and it is by carefully studying the composition of feeding stuffs and the requirements of animals that a great deal of information may be obtained which will be of inestimable value to the practical farmer.

Before we can give any intelligent information regarding rations for different animals it will be necessary for the reader to understand a few terms which practical feeders apply to different constituents of fodder.

Protein (nitrogenous matter) is a name

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The family remedy for Coughs and Colds.
 Shiloh costs so little and does so much!

commonly given to a class of substances which furnish the materials for the building up of lean flesh, blood, skin, muscles, brain, hair, horn, wool, etc. For these purposes Protein is absolutely essential in the food of animals. The white of an egg is very rich in protein and amongst the common fodders Cotton Seed Meal and Oil Cake may be mentioned, the former containing about 37 per cent. digestible protein.

Carbohydrates, a formidable name, but it simply represents the starches and sugars contained in foods and in the animal body they produce fat, heat and energy.

Fats is what is generally known by that name only it does not appear in that form in vegetables, etc. It is an important component of fodders for it produces fat, energy and heat in the body.

Crude Fibre is of little value as a food. It is largely indigestible and sometimes hinders digestion by protecting the food from the action of digestive fluids in the stomach.

Ash is the inorganic portion of feeding stuffs. It is of great importance in the food of young growing animals as it furnishes constituents from which the bone is built.

With all animals there is a peculiar relationship between the protein on one side and the carbohydrates and fats on the other side. Only a certain amount of each one is required and if a food rich in carbohydrates and fats be given, an excessive amount of the fodder must be digested to get the required amount of protein. This means that a certain amount of the fodder will be wasted, but it could be prevented by the addition of a small amount of nitrogenous food to a reduced amount of the fodder rich in carbohydrates and fats. For instance, corn is a food rich in starch or carbohydrates. Some Oil Cake or Cotton Seed Meal or even Alfalfa Hay added to it would make the constituents more digestible and cause it to approach what is called a balanced ration.

Space this week will not permit of further discussion but a following article will treat separately of the different feeding stuffs and the proportions in which they should be combined in economical feeding of various animals. The reader will do well to preserve this article for our statements next week will be based upon this explanation.

W. H. PORTER.

RHEUMATISM, LUMBAGO and LAME BACK

can be cured by the great fruit kidney and liver remedy,

FIG PILLS

Brantford, Ont., Aug. 13, 1911
 Your medicine, Fig Pills, has worked wonders for me. The rheumatic pains have entirely left me and I owe everything to your remedy. You are at liberty to publish this.

R. A. GAILMAN.
 At all dealers 25 and 50 cent boxes or mailed by The Fig Pill Co., St. Thomas, Ont.
 Sold in Watford by J. W. McLaren, Druggist.

Another of Mosa's esteemed residents passed away with startling suddenness from heart trouble on Sunday evening, in the person of Neil L. Munroe, aged 59 years. Deceased was unmarried and lived on lot 3, con. 6, Mosa.

There can be a difference of opinion on most subjects, but there is only one opinion as to the reliability of Mother Graves' Worm Exterminator. It is safe, sure and effectual.

Farm and Garden

APPLE BLISTER CANKER.

Fungus That Causes Serious Losses to Owners of Apple Orchards.

In a circular on the "Apple Blister Canker and Methods of Treatment," issued by the Ohio agricultural station, it is stated that it is increasingly evident that serious apple diseases must lie back of the reported dying of mature apple trees in many parts of Ohio. Field studies of conditions, supplemented by laboratory examination made during the season of 1911 and the early spring of 1912, show that serious cankers are present in these diseased orchards. By the term canker reference is made to any apparent bark



Photograph by Ohio agricultural experiment station.

DISEASED APPLE BRANCH, SHOWING ONE-YEAR-OLD CASE OF BLISTER CANCER.

disease of fruit trees. In these diseased areas the symptoms of dying bark and extension of disease causing an enlargement of the spots are usually evident.

In the southern and eastern portions of Ohio the condition known as a "neglected apple orchard" is for the greater part caused by the blister canker fungus.

The fungus, being a wound parasite, is difficult to control when once it has taken hold of a tree, and except in cases of slight attack the tree ultimately will succumb to this disease.

To prevent infection from the blister canker fungus it is necessary to prevent the drying of the tissues, which is done by covering the wound with a suitable dressing.

Prevention of infection and orchard sanitation, as by removal and destruction of diseased parts, appear to be the only methods of control.

Homes Under the Ground.

In the salt district in Cheshire, England, the brine has been pumped so continuously out of the earth that the land has settled very considerably. The houses naturally sink with the earth, and in some of the streets in Northwich only the roofs are visible. The houses are inhabited, although the rooms are underground. In a great many cases additional stories have been added, so that by living in the upper rooms the residents may have some light and air. The roadways sink, too, but are kept up to the proper level by the government.

Andrew Lang and John Knox.

"'Propos of Andrew Lang's 'John Knox and the Reformation' the following appeared after its publication in criticism of his views:

I think when these two meet,
 Whichever there to see't;
 Knox will come on wi' sic a bang
 Our freend'll no' be Andrew Lang.

—Westminster Gazette.

1913

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