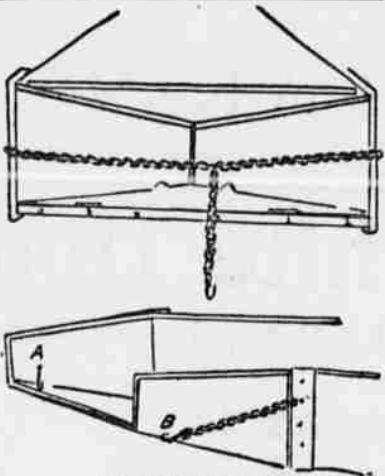




Farm Wagon Attachment.

A well-constructed shoveling board attached to the wagon box is a great convenience when unloading ear corn, root crops or any similar thing. The illustration shows a simple, practical idea, the lower picture showing the board lowered for use and the upper one showing how it can be closed. The shoveling board proper is about one inch narrower than the width of the inside of the wagon box and is attached to the latter with strong hinges; the board may be the same width as the sides of the wagon box, or wider, if desired. The side-boards A and B are slanted off at the back sides and the front ends are the same width as the box where they are attached with strong hinges. Strong, short hooks are placed in each side-board, as shown un-



SHOVELING BOARD.

der letter A, and an eye in the shoveling board just under the hook, thus keeping the board in position. There is a light iron chain support at each side of the box and hooked underneath.—Indianapolis News.

Making Incubator Profitable.

The incubator has passed the experimental stage, and is no longer a machine of chance results. Any one with a reasonable amount of common sense and the ability to take care of the machine and its contents while it is in operation will be rewarded by success. If one is in a position to go into the poultry business on a scale of considerable magnitude the better plan is to prepare a cellar expressly for the work, for, perfect as they are, incubators sometimes catch on fire, and then the loss of the building they are in generally follows. The cement building blocks which have recently come into use offer the means to construct an incubator cellar in any section of the country at moderate cost. Brooders, too, must be added, and there should be a structure for the brooders, so that the early hatched chicks need not be turned out of doors to get wet or catch cold. Incubator cellar in any section of the poultry and sold at a low price. A 50-egg machine of reliable make can be bought for \$10, and with it one can get all the experience needed to enable him to operate those of larger capacity a second season. The incubator and the brooder are essential in operations of considerable size, the sitting hen to be used only as a makeshift.

When and What to Prune.

This list of plants and shrubs, with their requirements in regard to the pruning season, is especially timely and helpful. It has the weight of authority, as coming from a practical gardener.

There is a right time and a wrong time to prune each plant, but few amateurs can distinguish between them. Also certain trees do not need pruning at all.

Head back immediately after blooming: Kalmia latifolia, diervilla or wigwilla, azalea, forsythia, snowball, kerria, mock orange, Philadelphia, barberry, most woody spiraea.

Head back when dormant: Roses, celmatia, spirea sorbifolia, hydrangea.

Large flowering trees not requiring pruning: Aesculus (horse chestnut), sorbus sambucifolia, catalpa, sorbus Americana (American ash), Iridodendron (tulip poplar), pavia, sorbus grandiflora, pyrus aria (white bean tree), sorbus elanocarpa, robina, clad-rastia, tinctoria (Virgilia tree), sophora, sorbus aucuparia (mountain ash).

Don't Set Berry Plants Too Soon.

If the strawberry plants are set in the cold moist soil they are likely to rot at the crown or, if this does not result, they will make no growth to speak of. Wait until the soil has dried out some so that it is mellow and easily worked; have the plot in good condition, well worked so that the soil is free from stones and clods of earth and the plants can be easily set and will begin to grow uninterruptedly so that one will lose no time by waiting until the soil is in perfect condition before setting out the plants.

Is Your Dairy Farm a Success?

Are you making all there is to be made in the dairy business? If not, why not? This is a question which every dissatisfied dairyman may well ask himself. When a business man or manufacturer finds his business is not paying to suit him he seeks for the causes of loss and strives to eliminate them.

If we investigate we shall find that the successful dairymen attend to every little detail that affects their business. They look at everything from a business standpoint, save wherever anything can be saved, and discard animals or methods that don't pay.

If you are not one of the successful dairymen, look around and see why you are not. There is a reason for everything, and when you know the reason you are in a position to remedy the trouble. If you have no liking for your business, the sooner you change to something you do like the better it will be for you and those dependent upon you. Have you tested your cows individually and discarded those which show by their own performance that they are not profitable? The Babcock test and the scales will show which are profitable and which are not, and it is sheer shiftlessness not to apply such a test.—Indianapolis News.

Spring Poor Stock.

The man who would get all from his live stock it is possible for them to give him is the man who feeds and cares for them intelligently. There are thousands of animals that will be turned onto the range this spring, who have been half-starved during the winter. This is particularly true of horses, who have had little work to do. Their owner has worked on the plan that if there was no work for the horse it should have only just enough food to sustain life; he forgets that stored-up vitality is necessary for the animal to do the heavy spring work of the farm. The poorly-fed horse cannot give the services he would have given had he been properly nourished, so, after all, it is poor economy to feed too lightly during the winter. When this poorly-fed stock is turned out to grass, it takes them half the summer to get in shape again, and, if they be cows, the milk supply is correspondingly light. Here again is where it does not pay to feed too stingily. If the stock on your place have not been well fed go at it now; give them grain and fodder until time to turn them to grass, and, unless the pasture is good from the beginning, feed them for some weeks. You will need to do this if you expect to get proper returns soon.

Self-Feeder for Poultry.

A perfection feed hopper is shown in the cut, says the Orange Judd Farmer. It is eight inches wide, two and one-half feet high, and three feet long. The roof projects over the perch on which the fowls stand while feeding. The method of constructing the perches and the weight and attachment to the lid over the grain is clearly shown in the picture. The weight on the arm



FEED HOPPER FOR POULTRY.

should be adjusted to the size of the fowl. This box may be made of any length desired, but the height and width are about right.

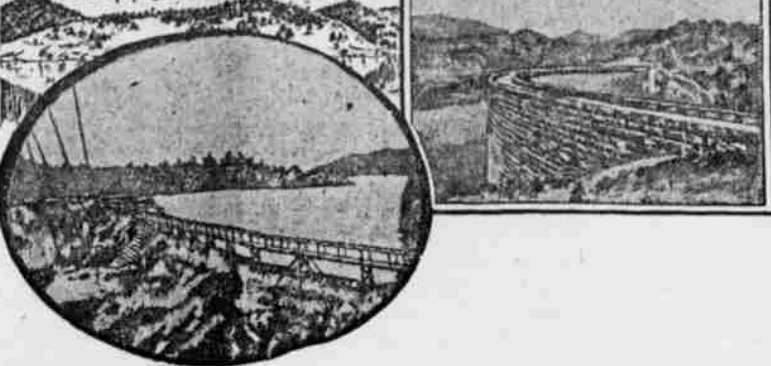
Changing Lots for Swine.

Where swine are raised in sufficient numbers so that they are herded in small inclosures, it is essential to change these lots yearly if one would avoid the danger of cholera or other diseases. The way to accomplish this to the best advantage is to have the swine distributed in small colonies, each with a movable house. Have the lots of double-size, using one-half of each lot during the early part of the season and the other half at the latter part. This will carry one through the season with little danger of trouble, and then these lots should be abandoned for swine, being cultivated the next year and new lots provided for the swine. This is considerable trouble to be sure, but there is no way more certain to avoid disease than this. Particularly is this plan valuable in sections where the soil is inclined to be heavy so that the filth made by the swine does not drain into the soil readily.

Freezing in Warm Air.

The freezing of leaves and buds on clear spring nights, when the air temperature is above freezing point, has been superstitiously looked upon as an effect of the moon's light. An English experimenter finds that, while all objects have the temperature of the surrounding air on cloudy nights, rapid radiation may produce a difference on clear nights and a piece of cotton proved to be at times six and even eight degrees colder than the air. Plants may be similarly chilled below freezing with the air above.

BUILDING THE HIGHEST DAM IN THE WORLD



Situated in a narrow ravine on the south fork of the South Platte river, 48 miles from Denver, is the highest dam on earth, known as the Cheesman dam. Its wall of solid masonry is 221 feet high, impounding more than 30,000,000,000 gallons of water. From an engineering viewpoint, its nearest rival is the famous Croton dam that impounds New York city's water supply. This contains more masonry and cost more money, but it does not hold as much water, and its construction was not attended with so many or so great engineering difficulties.

It almost seems as though Nature itself had intended the site of Cheesman dam to some day be utilized as a great reservoir. The canon of the South Platte river at this point is not more than 35 feet wide at the bottom, and the sides are almost vertical for nearly 100 feet. At this point the canon begins to widen, so that 200 feet above the bottom it is 600 feet wide, and 220 feet above the bottom its width is about 700 feet. From the bottom of the canon to the summit of the dam the side walls are of solid granite. Before the masonry was laid, the loose boulders, rocks and debris were removed. This work developed the fact that while the bottom contained pot holes, and the sides many irregularities, yet there were no seams nor crevices.

The dam was constructed of granite rubble masonry laid in Portland ce-

ment mortar, with the exception of the upstream face, which is of rough-pointed granite ashlar. For the downstream face, granite blocks of moderate size are used, making it one of the most handsome reservoirs to be seen anywhere—as well as one that should last almost as long as the eternal hills. To the beauty of this work of man, are added the glories of the Rockies—towering mountains rising in the distance capped with everlasting snow, whispering pines, rugged boulders and sapphire skies. The width of the dam on top is 18 feet, with a 14-foot roadway. At the bottom it is 176 feet wide. The elevation of the top of the parapet walls above the sea is 6,865 feet.

The primary object of this great engineering work is to supply the city of Denver with water. Incidentally water is supplied for the irrigation of several thousand acres of land in the valley of the South Platte river. The artificial lake created by the Cheesman dam covers an area of 84 acres, extending up South Fork valley five miles, up Goose creek two miles, and up Turkey creek one mile and a half. This reservoir is filled with the melted snows of the Rocky Mountains, furnishing probably the purest water enjoyed by any large city in the world. So capacious is the reservoir that the water always in storage would suffice for the 200,000 inhabitants of Denver and its suburbs for five years.—Williamsport (Pa.) Grit.

HERR MOST.

In Boyhood Football of Fate, He Became the Apostle of Hate.

Herr Johann Most, who died in Cincinnati the other day, was the high priest of anarchy. Brought up under the most adverse circumstances, disgraced from boyhood, ill-treated by his first employer, kicked and cuffed about Europe by soldiery and police, he grew into one of the most rantankerous philosophers and reddest revolutionists of modern times. Most was born in Augsburg, Germany, Feb. 5, 1846. His father held an office at the court and managed to give the boy a fair elemen-



HERR JOHANN MOST.

tary education. In 1863 young Most became ill, and an operation was performed, which disfigured his face for life. This did as much as anything else, perhaps, to sour his disposition. Then his mother died, and an unsympathetic stepmother came into his world to torment him to rebellion.

He was apprenticed to a bookbinder and after learning the trade went wandering through Italy, Switzerland and Hungary. He found it difficult to get work, because, as he says in his autobiography, his "facial disfigurement kept customers away." Most went to Zurich in 1867 and got work, escaping military service because of his deformity. He imbibed socialist ideas and started a crusade against all organized government. In May, 1869, he made a violent speech denouncing the clergy, the military, the police and the middle class. He spent a month in jail for this outbreak. After passing other time in jail for similar offenses, Most was selected by the Socialists as a missionary in Austria. The authorities banished him on May 2, 1871, and he was escorted to the frontier by a large procession of workmen.

In Saxony he was not allowed to speak publicly, but he carried on the propaganda in the homes of wage-workers. He was made editor of the Chemnitz Freie Presse by his party, and served a month in jail for making an incendiary speech. He was summoned to appear in court 43 times and was convicted of 23 violations of law. He had then become an anarchist of the most radical type, advocating the use

of force, even assassination by poison and bomb. He was elected to the Reichstag twice. After passing many months in prison he was ordered from Germany.

He went to London in 1879 and he began the publication of Freiheit. When Alexander II. of Russia was killed by nihilists Most published Freiheit with a red border and an editorial expressing a wish that all tyrants might be served like the Czar. The Russian and German governments called the British government's attention to the article, and Most was arrested, tried, found guilty and sentenced to 16 months hard labor at Clerkenwell prison. On his release he sailed for New York, arriving in December, 1882. He spent three terms on Blackwell's island for incendiary utterances. His last imprisonment was for publishing in Freiheit on the day President McKinley was shot an article entitled, Murder vs Murder.

Most was not taken seriously by many of his brethren. He was a theatrical and earnest talker and had a fine flow of adjectives, chiefly denunciatory. He achieved some success as an actor in 1894 by appearing at the Thalia as Old Baumert in the Weavers. He had not been conspicuous as an advocate of force in recent years and the radical anarchists of the Emma Goldman stripe were at odds with him.

Electric Lights from Windmill.

Wind-made electricity holds out the promise of becoming a great boon to rural districts; and the day is near at hand when every farmer who has a windmill on his grounds can enjoy electric lights and the many other services which electric power is capable of yielding. For many years, men have been trying to convert wind power into electricity. R. W. Wilson, of Westfield, Ind., has worked out a practicable method of accomplishing it.

In producing wind-made electricity, Wilson calls upon the windmill to perform its customary function of pumping water. He leads the water into a hydraulic regulator built on the principle of a water-lift, in which the pressure is controlled by weights, and from which it is released by means of automatic valves.

This regulator is the means of maintaining the even pressure under all conditions, whether the windmill is revolving fast or slow.

Under the uniform pressure, the water is passed from the hydraulic chamber through a water motor to which a dynamo is attached.

Mr. Wilson demonstrates the success of the invention at his own shop in Westfield, which is brightly lighted with wind-made electricity, and to all appearances it equals the steam-made product that city folk enjoy.

The Thankful Way.

Thankful We wander in bloom and in blight,
And reap in the red thorns the lilies of light.
And, toll being ended, we'll whisper
"Good-night,"
And dream of a beautiful morning!
—Atlanta Constitution.

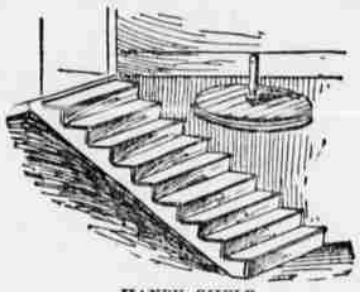


Enamel Finish for Shelves.

An excellent idea for pantry shelves is to give them two coats of ordinary white paint, and then a third finishing coat of white enamel. As soon as the enamel dries, wash it over with cold water, and then it will harden quickly. Do not cover these shelves with oilcloth or paper, but leave them bare and notice the improvement. As there are no covers under which crumbs, etc., can collect, there is nothing to encourage mice, and the enamel is easily wiped clean with a damp cloth. With enameled shelves it is never necessary to clean out the whole pantry at once, for it keeps clean all the time.

Revolving Cellar Shelf.

A handy cellar shelf that will save the housekeeper many steps may be arranged at the side of the cellar stairs, within easy reach upon descending a few steps. The shelf is contrived from an old axle and wheel. The axle is



HANDY SHELF.

fastened to hang from the nearest beam to the stairway. The wheel is covered with thin, smoothly planed boards and the axle is kept well oiled, so the wheel will revolve readily, bringing all parts of the shelf within reach at need.

Method for Testing Eggs.

A simple method for testing eggs, which comes from Germany, is based upon the fact that the air chamber in the flat end of an egg increases with age. If the egg is placed in a solution of common salt it will show an increasing inclination to float with the long axis vertical. By watching this tendency the age of the egg can be determined almost to a day. A fresh egg lies in a horizontal position at the bottom of the vessel; an egg from three to five days old shows an elevation at the flat end, so that its long axis forms an angle of 20 degrees, and an egg a month old floats vertically upon the pointed end.

An Easily Made Filter.

Take a new wooden pail and bore holes all over the bottom. Procure some fine, clean sand, and having thoroughly washed it in many waters place it in a bag of some strong cotton material, just the shape of the bottom of the pail, but slightly larger, and about two inches thick. Place the bag in the bottom of the pail, place the pail over another, and pour water in. If the sand is fine and pure it is remarkable what excellent filtration can be obtained from this simple contrivance, which costs but a trifling sum.

Giblet Soup.

Method: Well wash four sets of duck giblets; cut the gizzards into small pieces, and put them in the stewpan with enough water to cover them. Skim well, add a bunch of herbs, lemon, thyme, marjoram, cloves, parsley, sixteen berries of allspice and pepper; stew gently for two hours. Take out the pieces of meat and keep them warm, thicken the soup with flour, and season with a tablespoonful of ketchup and a little salt. Boil up, and pour over the giblets.

Sardines and Creese.

Ingredients: Sardines, pepper, salt, lemon juice, a little flour, the yolk of an egg, and grated cheese. Method: Warm some sardines in the oil from the tin, add pepper, salt and squeeze of lemon. When hot, lay the sardines on a hot dish, sprinkle grated cheese over them; thicken the sauce with a little flour and the yolk of an egg, and mask the sardines with it; garnish the dish with fried croutons.

How to Treat Linoleum.

To preserve the charms of new linoleum and renew the youth of old proceed thus: Take an ounce of fine glue size and pour over it a pint of hot water. Stir with a stick till the glue is melted. Wash over the linoleum with a damp flannel, then apply the mixture with a good clean piece of flannel. Do not step upon the floor until it is quite dry.

Chocolate Pie.

Beat three eggs well with four tablespoonfuls of sugar and beat gradually into them a pint of scalding milk, to which a pinch of soda has been added. Put over the fire, stir in half a cup of sweet grated chocolate and when this is thoroughly blended add a teaspoonful of vanilla. Pour the mixture into a pie plate lined with pastry and bake.