

FARM AND GARDEN

To Make Poor Farm Rich.

The progressive farmer rotates his crops. He tile-drains his land. He keeps dairy cows or mutton sheep or both. He breeds draft horses and does farm work with brood mares and growing colts. He improves the power of the soil by growing legumes.

James Wilson, secretary of agriculture, in the above words sums up the vital principles of good farming. He declares that the people of the United States have wasted their inheritance of land and wood, and the productiveness of the soil near the great centers of population has steadily decreased. We have been a nation of soil robbers, but there is at last an awakening—slow but sure.

Farmers of all sections are wanting to know how to stop the leaks and increase the deposits of their business and the government is helping them in many ways. There are over 9,000 persons employed in the Department of Agriculture and 2,000 of these are scientists, all working intelligently toward helping the farmer solve the problems which confront him. There are sixty-five land grant colleges with 10,000 students in agriculture. These boys are learning that rotation of crops is necessary, that live stock must be raised to make manure, of which there is never enough.

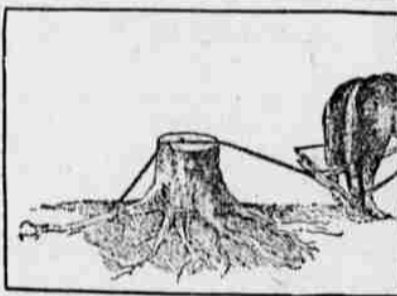
They are finding out that young grasses and legumes are nature's perfect ration for domestic animals. Milk and meat and work are had more cheaply from the pasture than from other sources. Pasture land increases as farm help becomes scarce. Mutton sheep are suggested when labor is dear. Cultivated crops reduce organic matter in the soil and render it unfit for profitable growing. Pasturing replaces organic matter. When good crops of grain or roots are wanted the pasture, plowed and reduced in season, is the best place to get them. Western farmers in the corn belt get their heavy crops from pasture land.

With the help of improved machinery the progressive individual farmer is producing much more than the average farmer did a generation ago and men of this class are keeping up the productive qualities of their farms.

The neglected lands of the eastern and middle states can be brought back to their primitive fruitfulness through the aid of scientific farming. Secretary Wilson says they are the cheapest land in the country and people wanting homes who have saved a little capital from their earnings or young men of means and tastes for the independent life of the country will find rich opportunities in these lands for profit and usefulness.

Removing Saplings and Stumps.

In uprooting young trees a team of horses or even a single horse with a chain can do effective work. Best results can be obtained where the growth consists of saplings two to four inches in diameter and where the root system is lateral. The plan is to fasten one end of the chain to the trunk as high above the ground as the flexibility of



STUMP WITH LATERAL ROOTS.



UPROOTING A SAPLING.

the tree will permit. While the horses are pulling at the tree a man should sever the roots at the base. Stumps of moderate size may also be pulled with chains and horses. One end of the chain should be fastened around a large root as shown in the illustration. By placing the chain across the top of the stump a leverage can be secured to take full advantage of the strength of the horses.

Fence Post Expense.

An annual fence post bill of more than \$1,250,000 is one item in the expense account of the farmers of a single agricultural State. It is estimated

that the farmers of Iowa use posts having a value exceeding this enormous sum each year to maintain the fences on the 25,000,000 acres of improved land in the State.

In making these estimates, H. F. Baker, professor of forestry in Iowa State Agricultural College, figured that the farms of Iowa required 78,000,000 posts for fences, or 2,000 to the square mile. Placing the value of the posts at 15 cents each, the cost of renewals every eight or nine years, which is the life of the post, is \$11,718,000, making an annual bill for renewals of \$1,465,000.

Like many other farming States, Iowa has a lack of fence post material, but there is little excuse for this condition, according to the foresters who have made studies in the State. A properly managed forest plantation will produce, when the trees have reached post size, 3,500 posts three to five inches in diameter per acre; thus, it would take 22,350 acres about every ten years to grow the necessary posts to supply the State. Iowa is said to have 200,000 acres of planted timber, and yet the fence post supply is insufficient. If properly cared for, many of these plantations can be made to produce more timber, and thus insure the future post supply.

These 200,000 acres are not at present furnishing the posts which it is estimated can actually be grown on 22,350 acres of properly handled forest land.

Effects of Rural Delivery.

There is a veritable network of rural routes out of nearly all of the towns in this section of the State, and seldom does one find a farmer who is not placed in a position to take advantage of one. With present conditions existing, the man on the farm has the opportunity to take his daily paper as the one in town, and gets his mail sometimes earlier than many of the residents of the cities. There are rural mail carriers and rural mail carriers—each one has his striking characteristic. The majority are favorites in their particular field, and as a rule the patrons of his route would not trade him for any other man on another. The carrier and the farmer learn to know each other, and the country visitor on hearing them greet each other would say they were both "good fellows." The man that carries the mail should have a whole lot of credit. He is obliged to make the trip in all kinds of weather and the best of protections will not make the job an enjoyable one. Some time when he is not busy, let the reader talk a few minutes to a rural mail carrier and he will find that he is in touch with everyone on the route.—Bloomington (Ill.) Pantagraph.

Grass a Great Drinker.

When a man is dying of thirst—give him a drink of water. Why not do the same with grass? Why should grass be allowed to lie all day in the broiling sun, its parched tongue hanging out, without a drop? It must be dreadfully thirsty about noon, or a little after; yet it is allowed to suffer till dusk makes it agreeable for the gardener to exhibit himself in gay attire with a hose. The gentleman gardener, the New York commuter, looks mighty pretty in rolled-up flannel trousers and an indigo shirt, canvas shoes and a 35-cent Panama chapeau. He pushes the mower, toys with the hose and flirts with the lassies of the neighborhood, while the grass is dying.—New York Press.

Believes in Mixed Farming.

I firmly believe in mixed farming, but even then we must specialize on some certain line of stock feeding and rotation of crops if we make a decided success of the business. Call it general farming, but let's not call it mixed farming. As grandfather used to say, "Be something. If you cannot be a long-tailed rat, be a mouse." Have some hobby, some kind of a crop or some kind of live stock and specialize on that and make your other farming subservient to that one special crop or kind of live stock feeding. We have too many common mixed farmers.—John C. Barnes, Indiana.

Profitable Cattle.

A train load of cattle sold in Omaha recently for \$20,000, being exactly \$8 per hundred pounds for every steer on board. These cattle were fattened on a mixture of corn and alfalfa. To encourage feeders to take up the balanced ration as best for cattle, the packers are to have exhibits at the National Corn Exposition to be held in Omaha next December, and will show in the cuts of meat the superiority of that from alfalfa-corn fed steers.—Ennis (Tex.) News.

Salt Purification.

Salt is purified by melting in the new and rapid English process. The crude rock salt is fed automatically to a table contained in a large furnace, is then fused and runs into troughs, from which it is drawn at one side of the furnace into large cauldrons. Air is forced into the molten mass and lime is added. The impurities sink to the bottom, and the upper portion is ground and screened while the lower part is used for chemical manure.



Homemade Linoleum.

A good, strong linoleum may be made from old Brussels carpet that has not been worn through, says Popular Mechanics. Tack the carpet right side down on the floor and then apply paint, giving it a large number of coats, the last few coats to be of the desired color, allowing each coat to dry well. If the paint begins to wear, apply a fresh coat of paint. The effect of mosaic tile may be produced by dotting the last coat with different colors of paint.

Griddle Cakes.

For those who have no waffle iron a recipe for delicate griddle cakes is given. Beat the white and yolk of an egg separately. Add to the yolk one cup of milk, one-quarter level teaspoonful of salt, and one and one-half cups of sifted flour. Mix well, then add two and one-half level teaspoonfuls of baking powder, and beat hard with strokes across the bowl. Fold the white of the egg in lightly and cook on a hot griddle, allowing one tablespoonful of batter to each cake.

Mexican Rarebit.

Melt a tablespoonful of butter in a chafing dish. When well heated add a tablespoonful of Mexican pepper pulp, a half-teaspoonful of mustard and a little salt. To this add a half pound of cheese cut in small pieces. When the cheese is melted stir in slowly three or four teaspoonfuls of milk and then add one beaten egg. The mixing should be stirred constantly while cooking. When sufficiently thickened, serve on small squares of toasted bread.

A Tomato Sauce.

For a tomato sauce such as the chef in one of the best hotels makes, melt two tablespoonfuls of butter in a saucepan and cook in it half an onion cut fine. When the onion is yellow, add two tablespoonfuls of flour and cook until it is delicately browned. Then turn in two cupfuls of tomatoes, a small glass of wine, a bit of bay leaf, two or three cloves, a bit of garlic, and salt and paprika. Cook ten minutes, strain and serve with baked fish.

Quick Coffee Cake.

Sift together one pint of flour, one-third of a cupful of sugar, three teaspoonfuls of baking powder and half a teaspoonful each of salt and ground cinnamon. Mix to a soft dough with about half a cupful of milk stirred into a well-beaten egg. Add four tablespoonfuls of soft butter, spread in a shallow pan, sprinkle with sugar mixed with cinnamon and bake in a moderate oven. Serve fresh with coffee. Raisins or currants may be added if desired.

Boiled Tongue.

Have a fine pickled ox tongue, if very salt let it lie in cold water for one or two hours before cooking. Put into a stew pan with two carrots, one onion, a bunch of herbs and parsley, two or three cloves and six peppercorns; cover with cold water; simmer gently for about three hours; remove from the stew pan, take off the skin, trim the roots, put a paper frill around and serve on a hot dish.

Yorkshire Pudding.

Mix one cupful of flour with one-eighth of a tablespoonful of salt and add one cupful of milk gradually to form a smooth paste, then add two eggs beaten until light. Bake in gem pans greased with fat from the roast, and baste with the fat after the pudding is fully risen. Serve around the roast. This pudding is often baked in a dripping pan and cut in squares to serve.

Flexible Glue.

According to Power, a flexible glue for attaching leather to metals may be made by adding one part of Venetian turpentine to four parts of glue. The mass is heated in a glue pot as usual until it becomes sticky and ceases to give off bubbles. It works best when fresh.

Baked Codfish Hash.

To each cup of finely flaked and freshened codfish allow two cups of chopped cold potatoes; mix in two tablespoonfuls of melted butter and one cup of milk; pack in a buttered pan, cover and bake thirty minutes.

Fried Salt Codfish.

Cut the fish in squares and soak in cold water over night, dry on a cloth and dip each square in beaten egg, to which has been added one tablespoonful of cream; roll the fish in flour and fry a golden brown in hot fat.

Butter Scotch.

Two cupfuls of sugar, two tablespoonfuls of water, a piece of butter the size of an egg. Boil without stirring until it hardens on a spoon. Pour out on buttered plates to cool.

DOG TEAMS BEAT HORSES.

Most Reliable Means of Transport in Northern Michigan.

A dog owner who takes great pride in the breed and smartness of his teams is the city treasurer of the "Soo," J. I. Deadman. He has six of the finest dogs in the upper peninsula, and drives them almost daily during the winter months. His trips extend as far as St. Ignace, Detour and other points within a hundred miles of the "Soo." Last winter he made a trip to St. Ignace, stopping over night on the way, and covered a distance of sixty-five miles in five and one-half hours by actual time on the road.

Mr. Deadman is a veterinary surgeon by profession, and he uses his dog team in responding to all calls which take him out into the snow-covered country. Wrapped up in a huge fur overcoat, and with a buffalo robe tucked around him he starts out with his six dogs in the fiercest storms in the coldest weather, and will pass any team of horses on the road. In making a long journey, with favorable conditions, his dogs will keep up a pace of ten miles an hour and wear down any horses.

In fact, the dog is the most reliable means of transport through the upper peninsula of Michigan in the long winters, and civilization has not been able to retire him along with vanished relics of the older and ruder times. The dog team has kept its place in the life of the community ever since the days when these teams were the only means of communication with the outside world for five months of the year.—Onting Magazine.



Glass is made iridescent by being exposed, in a red-hot condition, to the fumes of salt and of tin, barium and strontium. Red is produced by the strontia, blue by the baryta and bluish white by the tin. In ancient glass, which is more opaque, iridescence is due to partial decay.

It having been urged as a possible objection to the setting apart of forest reserves on the great Western plains that the huge buffalo wolf, or "timber wolf," would take advantage of them to breed in security, Mr. Vernon Bailey recently gave before the Biological Society of Washington an account of his observations of the habits of these wolves, which were undertaken, in part, for the purpose of learning to what extent the animals are harbored by the forests. His conclusions are reassuring, since he shows that although the wolf dens are found in the open and on the edge of the forest, none exist in the timber.

In the scout cruiser Salem the United States possesses the fastest warship afloat. In the recent government standardization trial over the measured mile course off Rockland, Me., this handsome vessel was driven at a maximum speed of 26.88 knots and at an average speed for five runs over the mile course of 25.95 knots. The Salem is equipped with Curtis turbines, a type which has been developed in this country. The Chester, a sister ship, is conceded to be the second fastest warship afloat. Reports from across the ocean that the British Indomitable reached faster speed than these are said to be lacking in verification.

Messrs. C. A. Parsons and A. A. Campbell Swinton described before the Royal Society in London recently the transformation of a diamond into a black coal-like mass by the action of cathode rays in a high vacuum. The diamond first became red, and then intensely white-hot, and finally, at 11,200 volts and 48 milliamperes, it disintegrated, increased considerably in volume, and assumed the appearance and consistency of coke. The temperature at the time of disintegration was estimated to be 1,800 degrees Centigrade. Differences were observed in the spectra of the gases in the vacuum tube before and after the operation, but they were not sufficiently marked to determine with exactitude any variation in the nature of the gases.

At a meeting of the Philosophical Society of Washington, Dr. J. W. Spencer presented many new and surprising facts about the Niagara river below the falls. Soundings have recently been made at points where such work was supposed to be impossible. A self-registering buoy was repeatedly sent over the falls. On one occasion it struck the fallen rocks at a depth of only 72 feet; but lower down the depth was found to be between 84 and 100 feet. In a lateral channel the depth found was 192 feet. A depth of 186 feet was repeatedly found near the cantilever bridge, two miles below the falls. In the whirlpool rapids a sounding of 126 feet was obtained. Below the rapids a narrow channel was discovered, 183 feet in depth, being 181 feet below the level of Lake Ontario. It must have been formed when the lake lay about 180 feet below its present level.

Advice.

"Never marry a man to reform him, my dear," counseled Aunt Hephzibah. "If you do reform him he'll hate you for it, and if you don't you'll always be pitying yourself for having married a man who wasn't good enough for you."

FITS St. Vitus' Dance and nervous diseases permanently cured by Dr. J. H. Kane's Great Nerve Restorer. Send for FREE \$2.00 trial bottle and treatise. Dr. H. H. Kane, L.D., 93 Arch St., Philadelphia, Pa.

Rebuking His Presumption.

The proud beauty eyed him with regal scorn. "I have told you before, Mr. Jordie," she said, "that the difference in our social position makes it exceedingly presumptuous on your part even to hint at a possible marriage between us. If you can't talk to me without doing the sentimental stunt just keep your face closed, will you?"

Utterly crushed, the young man promised to be good, and she laid her golden brown head down on his shoulder again.

Items of Interest.

Chattel mortgages.

Bonds.

Promissory notes.

Pawnshops.

Loans.—Toledo Blade.

Mothers will find Mrs. Winslow's Soothing Syrup the best remedy to use for their children during the teething period.

Apportioning the Year.

Now strolls the youth beside the sea,
No longer grimly thrifty,
For just two weeks' vacation he
Must save up coin for fifty.

Washington Star

Defined.

"Uncle Henry, what are pajamas?"
"Pajamas my boy, are the masculine substitute for the bloomer costume."

Shake Into Your Shoes

Allen's Foot-Ease, a powder for the feet. It cures painful, swollen, smarting, sweating feet. Makes new shoes easy. Sold by all Druggists and Shoe Stores. Don't accept any substitute. Sample FREE. Address A. S. Climated, Le Roy, N. Y.

Gen. Corbin Likes Old Clothes.

Ever see Gen. Corbin's old shoes? He had them made four years ago when he went to the Philippines, and he's wearing 'em yet. They're great. The general detests a new pair of shoes or a new suit of clothes. A young fellow came along to his place near Washington recently and said:

"Sir, I don't want to ask for money, but I would be grateful if you would give me an old suit of clothes."

"Not by a good sight," said the general, "but there is a new suit inside you can have."—New York Sun.

Catarrh Cannot be Cured

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease, and in order to cure it you must take internal remedies. Hall's Catarrh Cure is taken internally, and acts directly upon the blood and mucous surfaces. Hall's Catarrh Cure is not a quack medicine. It was prescribed by one of the best physicians in this country for years and is a regular prescription. It is composed of the best medicines known, combined with the best blood purifiers, acting directly on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials free. F. J. CHENEY & CO., Props., Toledo, O. Sold by Druggists, price 75c. Take Hall's Family Pills for constipation.

Seeking a Fitting Environment.

Mrs. Raynor—Your brother Algy is going to spend the rest of the summer in a logging camp, is he? What is his idea in doing that?

Mrs. Shyne—The poor boy has taken a notion that he wants to wear a French beard, and he's going there to try to raise the necessary foundation for it.

Its Faulty Construction.

"I was away up in front," Mrs. Lapelling was saying, "and yet I couldn't hear half the actors said. I tell you there's something wrong with the agnostic properties of that theater."—Chicago Tribune.

KASPARILLA

This sterling household remedy is most successfully prescribed for a "world of troubles." For derangements of the digestive organs it is a natural corrective, operating directly upon the liver and alimentary canal, gently but persistently stimulating a healthful activity. Its beneficial influence extends, however, to every portion of the system, aiding in the processes of digestion and assimilation of food, promoting a wholesome, natural appetite, correcting sour stomach, bad breath, irregularities of the bowels, constipation and the long list of troubles directly traceable to those unwholesome conditions. Kasparilla dispels drowsiness, headache, backache and despondency due to inactivity of the liver, kidneys and digestive tract. It is a strengthening tonic of the highest value. If it fails to satisfy we authorize all dealers to refund the purchase price. HOYT CHEMICAL CO., Portland, Oregon

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