

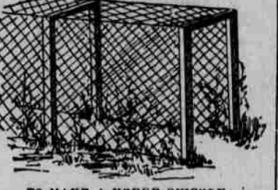


A Valuable New Radiator.
The lists of good, early radishes are so large that all but experts may find it difficult to make a suitable selection. French Breakfast, Early Scarlet Turnip, Scarlet Olive-Shaped and others have long been general favorites, but the new Henderson's Rose Turnip radish—a life-like illustration of which is shown herewith—is second to none in



beauty as well as quality and earliness. It has a small, compact top and a miniature root, requires only twenty-three days to mature and remains in good condition for ten days. Its beautiful rosy pink color renders it very attractive when bunched.—American Agriculturist.

Quickly Made Hedge.
American Gardening shows a short cut to a handsome hedge. A "form" is made of wire netting, the sides and top also being covered. Along the base on either side of this quickly growing



TO MAKE A HEDGE QUICKLY.

vines are planted, which soon cover the wire with a mass of green that becomes more and more dense and beautiful each succeeding year if the proper sort of vines are used. The "proper sort" would include our common woodbine. It is a quick grower, and its foliage is remarkably handsome, both in the green state and when touched by autumn frosts. There are many other vines, however, that would answer admirably for this purpose, so that all tastes can be suited. Such a hedge needs only such annual clipping as will suffice to keep the vines growing evenly all over the wire—as thickly in one place as in another.

Keep the Sheep at Home.

The illustration, from Farm and Home, portrays a sheep poke made of a hickory stick (a) 4 or 5 feet long, bent in the center, and a wire (b) fastened about 10 inches below the bend and another (c) after the poke is slipped over the sheep's neck, 4 or 5 inches lower down to fasten the poke in place. This device will keep any sheep from going through a wire, rail or board fence, is a good thing for jumping sheep, and will prevent them from crowding into bushes and briars, tearing the wool from the body. Grazing or drinking is not interfered with.

This Country's Big Hog Industry.

The hog industry in the United States has reached tremendous proportions. No less than 16,928,978 swine were slaughtered by the packers of the West alone last year. The whole number the country over would amount to half as much more, or about 25,000,000 altogether. It was the greatest hog year in our history except 1890-1, when the pork packing business reached high-water mark. In the region northwest of the Ohio river last year farmers and live stock men received for the hogs they raised \$135,456,000.

Good Roads.

Good country roads are an index of the thrift and prosperity of a community. Smooth and well-kept roadsides are a necessary adjunct to a well-cultivated farm. This means that there must be no weedy fence corners nor fences overgrown with briars, thistles and vines. The lanes may be made to yield a large amount of hay, if the surface of the ground be properly leveled

and cultivated, and the appearance so much improved, that many dollars per acre would be added to the value of the adjoining farms. We wish our readers would try it, see the results as we have seen them.

A Race of Apple Eaters.

Does any one know of any good reason why we should not be a race of apple eaters? By this we refer to the habit or practice of eating apples raw. The Bulletin of Pharmacy advances what we believe to be a valuable suggestion along this line of action. It says: "No harm can come even to a delicate system by eating of ripe and juicy apples just before going to bed." It also remarks that the apple is rich in phosphoric acid. What is not so well known, however, observes the Nebraska Farmer, it points out, is that it thoroughly disinfects the mouth, excites action of the liver, promotes a sound and healthful sleep, helps the kidney secretions and prevents calculus growths, obviates indigestion, and is one of the best-known preventives of diseases of the throat. These are benefits enough to make us all apple eaters, surely.

Separate the Flocks.

The first thing to do with flocks that are kept on farms rather than on ranches is to separate the flock into a number of small ones, each composed of one kind, and having a regard to sex, age and general condition. The weak ones should not be placed with the strong. The wether or stock flock should be in one flock, the breeding ewes in another, and the lambs in another, if the best results are to be secured.

Save the Young Timber.

There is always a demand for good timber, especially of the quick-growing kinds, such as pine, oak, and birch. A piece of land cleared will in thirty-five or forty years have a new growth large enough for box boards, and spoolstrips, and there should be more attention given to this source of income. Stronger and more systematic laws protecting timber should be passed.

Turkey Food.

The best feed for young turkeys is a cake made of equal parts of ground oats, corn and wheat baked so that it will crumble. They ought to have their freedom from yards as soon as possible, say when two weeks old, but should be housed at night. Nothing is better than good, whole corn to fatten turkeys.

Good for Hogs.

To keep hogs thrifty when fattening mix two quarts of wood ashes or fine charcoal with one pint salt and a quarter of a pound of sulphur. Ten hogs will eat this mixture once a week.—Agriculturist.

Poultry Points.

Dry earth is a good material to scatter under the roosts.
On the average it will cost \$1 to keep a laying hen one year.
When a thrifty bird is fully matured, it is easily fattened.
Stale bread soaked in milk is a good feed for young poultry.
Early hatched, well developed pullets make good winter layers.
Cleanliness and good feeding are the secrets of success with poultry.
Leghorns and Black Spanish lay eggs with the whitest shells of any breed.

Slaughter of Birds.

One of the largest importers of feathers in England, Mr. Weiler, is reported to have made this statement: "Until recently, millions of birds of paradise, sunbirds, humming birds, etc., were slaughtered annually; in one forest in France alone one-half a million little songsters were caught every year; while, had it not been for State interference, the nightingales of Germany would now have been practically extinct. In all, the importation of feathers lately amounted to considerably more than £1,000,000 per annum." Many tons of feathers still annually change hands. "But our business," said Mr. Weiler, "with the exception of one line, has declined rapidly." And the reason of the decline, we are informed, is "the activity displayed by a ladies' society established for the purpose of boycotting hats, etc., for which small feathers are used for adornment." It is added that the society, which was started only a year or two ago, has reduced the feather business to half its dimensions. Of course, all considerate women will be pleased to hear this; for now such species of birds as have not already been exterminated will have a chance of surviving and reviving.

Chinese Smiles.

Some of the ordinary expressions of the Chinese are pointedly sarcastic enough. A blustering, harmless fellow they call "a paper tiger." When a man values himself overmuch, they compare him to "a rat falling into a scale, and weighing itself." Overdoing a thing they call "a hunchback making a bow." A spendthrift they compare to "a rocket" which goes off at once. Those who expend their charity on remote objects, but neglect their family, are said to "hang a lantern on a pole, which is seen afar, but gives no light below."

Chinese Smiles.

Every steamer that sails along the coast is a refuge for birds that are blown to sea, mostly small and not strong of wing. When disturbed or frightened by people on deck, they fly into the air and fall behind the ship. After several disturbances they become so tired that they can no longer catch up, and after hopelessly chasing the vessel for several miles flutter into the sea and are drowned.

Will in a Grave.

Almost a parallel to the Jacob Z. Davis will discovery turns up in Indiana, for after lying in a man's coffin for nearly 80 years, a will has been exhumed at Leavenworth, in that state, and its terms are liable to increase a troublesome litigation among the heirs of the man who had the document buried with him.

Jacob Kissingen was the man. The will was found by accident, because when Kissingen died, although the will was believed to have been made, no body could find it. So the heirs went to law and have been at it for three decades.

A few days ago a dispute arose which could be cleared up by the family Bible. So the old grave was opened and the book taken out. It was in a good state of preservation, and, when opened, to the surprise of everyone, disclosed the old man's will.

By the terms of the document found in the grave the property of Kissingen was divided equally among five children, one of them a resident of Germany, and born of Kissingen's first wife. And this is where the new trouble begins. None of the four American heirs ever heard of the father's first marriage, and not one of them guessed that he had a brother in Europe.

The German heir, of course, has been in ignorance, too, of the existence of his American brothers, and the property and money bequeathed to him.

If he presses his claim now, it is said that the four brothers who live here will have quite a hole in their purses when they pay him what is his by his father's will.

Horse Power of Lightning.

A recent thunder storm in the neighborhood of Berlin afforded an opportunity of measuring precisely the power of a flash of lightning. The experimenters took as a basis the amount of iron fused by a flash of lightning, and according to the statement which they have published, the power of a flash of lightning is on an average equivalent to 7,000 horsepower.

HOITT'S SCHOOL.

One of the best schools for boys on this coast is in charge of ex-Superintendent Ira G. Hoitt, Ph. D., at Burlingame, San Mateo county, accredited.

A single polypus has been cut into 124 parts, and each in time became a perfect animal.

Piso's Cure for Consumption has saved me large doctor bills.—C. L. Baker, 4229 Regent St., Philadelphia, Pa.; Dec. 8, '90.

A man in a balloon four miles above the earth can plainly hear the barking of a dog.

HOW'S THIS?

We offer One Hundred Dollars Reward for any case of Catarrh that cannot be cured by Hall's Catarrh Cure.

W. J. CHESEBURY & CO., Props., Toledo, O. We, the undersigned, have known J. J. Cheney for the last 15 years, and believe him perfectly honorable in all business transactions, and financially able to carry out any obligation made by him.

WEST & TRUAX, Wholesale Druggists, Toledo, O. WALKING, KINSMAN & MARVIN, Wholesale Druggists, Toledo, O. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system. Price 50c per bottle. Sold by all druggists. Testimonials free. Hall's family pills are the best.

Russia has 41,800 public schools, while Germany, with only half the population, has 59,000 schools, with nearly three times as many pupils as the Russian.

A new method of testing the hardness of steel balls has been devised. The balls are dropped from a fixed height on a plate glass set at an angle; if properly tempered they rebound into one receptacle, and if they are too soft, they drop into another.

Stop! Women,

And consider that in addressing Mrs. Pinkham you are confiding your private life to a woman—a woman whose experience in treating woman's diseases is greater than that of any living physician, male or female.

You can talk freely to a woman when it is revolting to relate your private troubles to a man; besides, a man does not understand, simply because he is a man.

MRS. PINKHAM'S STANDING INVITATION.

Women suffering from any form of female weakness are invited to promptly communicate with Mrs. Pinkham, at Lynn, Mass. All letters are received, opened, read, and answered by women only. A woman can freely talk of her private illness to a woman. Thus has been established the eternal confidence between Mrs. Pinkham and the women of America which has never been broken. Out of the vast volume of experience which she has to draw from, it is more than possible that she has gained the very knowledge that will help your case. She asks nothing in return except your good will, and her advice has relieved thousands. Surely any woman, rich or poor, is very foolish if she does not take advantage of this generous offer of assistance.

WHEAT

Make money by speculative speculation in Chicago. We buy and sell wheat there on margin. Profits have been made on a small beginning by trading in futures. Write for full particulars. Best of reference given. Several years' experience on the Chicago Board of Trade, and a thorough knowledge of the business. Downing, Hopkins & Co., Chicago Board of Trade Brokers. Offices in Portland, Oregon, Spokane and Seattle, Wash.

REPTURE and PILES cured; no pay until cured; send for book. DR. MANSFIELD & PORTERFIELD, 328 Market St., San Francisco.

DR. WHEAT ALL THE TIME. Best Cough Syrup. Tastes Good. Use in all cases. Sold by Druggists.

A GASOLINE HOISTING ENGINE.

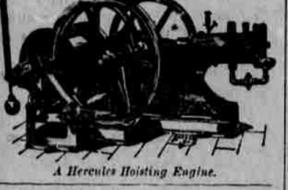
It Does the Work of the Steam Engine Better and With Less Cost.

The use of gas and gasoline engines in mines and for all power purposes is very much on the increase. New uses for them are being found every day. They are being used quite extensively for pumping, for hoisting, and for other work in mining. Mr. W. F. Patrick has an article in a recent number of the New York Engineering and Mining Journal giving experience with a gasoline hoisting engine at the Southern Eureka mines in Utah. Mr. Patrick says:

"We have had the engine in use for some time, and have found it highly satisfactory and in the highest degree economical. We are engaged in sinking, and of course only hoisting intermittently. Our engine is rated at 25-horsepower, and hoists a load of 1,100 pounds from a depth of 275 feet in 45 seconds. Our consumption of gasoline has averaged only 0.7 gallons per hour. The amount of water used in cooling the cylinders is very small, as large galvanized iron cooling tanks are provided with the engine, and only enough water is required to replenish what is lost by evaporation. In many of our Western mining districts water for a steam plant would cost as much or more than the fuel.

"The engine is provided with electric and torch igniters, both of which work very satisfactorily. One man can, by means of the self-starter, easily start the engine alone; after starting it requires no attention, except to see that the oil cups are feeding properly.

"By means of the operating levers near the shaft, one man can hoist, dump the buckets, run out the waste,



A Hercules Hoisting Engine.

and in such work as ours, or at small mines, have time to do the tool sharpening and timber framing.

"The machinery is noiseless and safe. The gasoline tank is placed outside the engine room, underground, and below the level of the engine bed, and the gasoline is drawn up as needed by a small pump placed on one side of the engine. This arrangement prevents all possibility of an explosion. In fact, I consider it safer and more economical than steam, and when the hoisting is done, it can be shut down and there is absolutely no consumption of fuel and no possible danger of explosion."

The illustration given herewith shows a type of engine very much in use in mines throughout California, Oregon, Idaho, Arizona, Mexico, Utah, Montana, Nevada, etc. It is built by the Hercules Gas Engine Works, of San Francisco, in all sizes, from two to two hundred horsepower. The engines are built extra heavy, the hoisting drum being the same base as the engine, and geared direct. The levers operating the hoist are positive in action, and are within easy control of the operator. About three thousand of these engines are in use in different parts of the country, and in every instance have demonstrated their superiority over any other power for the purpose used.

They are also made to burn distillate oil, which reduces the fuel cost very materially, and where water and fuel are scarce, the saving in these items quite often enables the property to be worked where otherwise the expense attendant upon operating a steam engine would preclude it.

D'Annale's Three Wills.

So rich was the Duc d'Annale that he had to make three wills to properly provide for the disposition of his property. One of them relates exclusively to that part of his property which is in France, while the other deals with the wealth deposited in England, possibly from motives of precaution.

The latest estimate of the population of the globe has been made by M. d'Amfreville, who places it at 1,479,729,000. The number of inhabitants to the square mile in Asia is 48; in Africa, 15; in America, 8; in Oceania, and the polar regions, 3; in Australia, 1. The yearly increase of the population of the earth is about 5 to every 1,000. At this rate the population doubles every 139 years.

A lady while traveling from Tyrone to Altoona, Pa., had her pocket picked in a car, and she was hustled off miles from her destination because she had not money to pay her fare. There were fourteen men who witnessed the act, and not one of them had the manliness to lend her fifty cents.

The French minister of war recently offered a prize for the swiftest bird in a flight from Perigoux to Paris—310 miles. There were 3746 entries and the winner did the distance in seven hours and 34 minutes.

Marie Theresa's equestrian statue, recently unveiled by Emperor Francis Joseph, at Pressburg, is said to be the first monument erected in Hungary to a sovereign of the Hapsburg line, which has ruled over the country for 371 years.

Near Boise City, Idaho, 400 feet below the earth's surface, there is a subterranean lake of hot water, of 170 degrees temperature. It has pressure enough to ascend to the top floor of the houses, and will be piped to them for heating purposes.

The first public library in England was founded by the corporation of London some 300 years before the British museum was established. Cromwell borrowed books from this institution and "forgot to return them."

Influence of War on Toys.

Within the past few weeks a German factory which makes lead toy soldiers, has received so many orders for Turkish and Greek soldiers for next Christmas that it announces through the European press its inability to fill any more orders this year. The makers of toy uniforms, games, pictures and similar toys are also running overtime, making specialties illustrating the Turco-Greek war. Even the textile industries are preparing to rean the golden harvest and material of every imaginable description in Turkish and Greek designs is being manufactured in large quantities.

SOUND REASONS FOR APPROVAL.

There are several cogent reasons why the medical profession recommends the public prefer Hostetter's Stomach Bitters above the ordinary cathartics. It does not drench and weaken the bowels, but assists rather than forces nature to act; it is botanic and safe; its action is never produced by an internal earthquake like that produced by a drastic purgative. For forty-five years past it has been a household remedy for liver, stomach and kidney trouble.

There are two business men in an English town named I. Came and H. E. Went.

DRUNKARDS CAN BE SAVED.

The craving for drink is a disease, a morbid cure for which has been discovered called "Anti-Jag," which makes the inebriate lose all taste for strong drink without knowing why, as it can be given secretly in tea, coffee, soup and the like.

If "Anti-Jag" is not kept by you, druggists send one dollar to the Bienville Chemical Co., 26 Broadway, New York, and it will be sent postpaid, in plain wrapper, with full directions how to give secretly. Information mailed free.

In 1895 statistics of visitors to Paris were kept by the police, to whom proprietors of hotels and boarding houses had to make returns. These statistics were: English, 43,873; Americans, 42,817; Germans, 36,242.

AN OPEN LETTER TO MOTHERS.

WE ARE ASSERTING IN THE COURTS OUR RIGHT TO THE EXCLUSIVE USE OF THE WORD "CASTORIA," AND "PITCHER'S CASTORIA," AS OUR TRADE MARK.

I, DR. SAMUEL PITCHER, of Hyannis, Massachusetts, was the originator of "PITCHER'S CASTORIA," the same that has borne and does now bear the fac-simile signature of *Chas. H. Fletcher* on every bear the fac-simile signature of *Chas. H. Fletcher* wrapper. This is the original "PITCHER'S CASTORIA," which has been used in the homes of the mothers of America for over thirty years. LOOK CAREFULLY at the wrapper and see that it is the kind you have always bought *Chas. H. Fletcher* on the and has the signature of *Chas. H. Fletcher* wrapper. No one has authority from me to use my name except The Centaur Company of which Chas. H. Fletcher is President.

March 8, 1897. *Samuel Pitcher, M.D.*

Do not endanger the life of your child by accepting a cheap substitute which some druggist may offer you (because he makes a few more pennies on it), the ingredients of which even he does not know.

"The Kind You Have Always Bought" BEARS THE FAC-SIMILE SIGNATURE OF

Chas. H. Fletcher
Insist on Having
The Kind That Never Failed You.
THE CENTAUR COMPANY, 27 MURRAY STREET, NEW YORK CITY.

REASONS FOR USING
Walter Baker & Co.'s
Breakfast Cocoa.

1. Because it is absolutely pure.
2. Because it is not made by the so-called Dutch Process in which chemicals are used.
3. Because beans of the finest quality are used.
4. Because it is made by a method which preserves unimpaired the exquisite natural flavor and odor of the beans.
5. Because it is the most economical, costing less than one cent a cup.

Be sure that you get the genuine article made by WALTER BAKER & CO. LTD., Dorchester, Mass. Established 1780.

OH, THE PAIN!

All the pains that man suffers from are the result of weakness. The nerves are weak or the muscles are weak. If neither of these, the vital functions need strength. What is better than electricity, which fills every part of the body with new vitality every day?

Dr. Sanden's Electric Belt....

Have you tried it. No, or you wouldn't suffer from pain of any kind. "I suffered misery from pain in my back. Dr. Sanden's Belt cured me in three weeks. I would not part with my belt for any money," says J. E. Allison, 206 North Ninth street, Portland.

It cures all kinds of pain and weakness. The steady, soothing current from it brings life to the weakened nerves and muscles. Call and see it, or get the book with information, free.

SANDEN ELECTRIC BELT CO., 353 West Washington St., Portland, Or.
When writing to Advertiser please mention this paper.

CHEAPEST POWER.

...REBUILT GAS AND GASOLINE ENGINES...

HERCULES GAS ENGINE WORKS
405-7 Sansome St. San Francisco, Cal.