

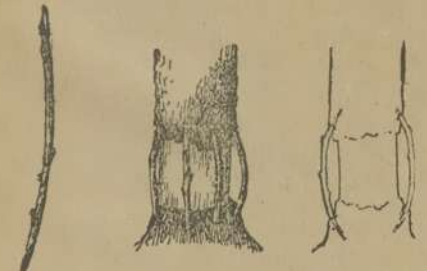
FARM AND GARDEN

Bridge Grafting.

Where trees are found girdled in the spring, the only method of saving them is by the practice of what is known as bridge-grafting.

If young trees be girdled in late spring just as growth is beginning, they may be successfully treated by binding about the wounded parts a heavy covering of smooth, tenacious, soft clay. It is safer, however, to insert a few long scions, as shown in the accompanying picture. The sap circulation of the tree, cut off by the wound made by the rodents, is resumed through the scions, which become a part of the tree—enlarging and growing together until, in after years, only a slight enlargement or "bulge" on the trunk of the tree thus treated will be noticeable.

In bridge-grafting the wounds should be made clean and smooth with



a sharp knife and covered entirely with grafting wax. The scions should be cut a trifle longer than the span to be bridged, so that, when they are inserted, their curving form will tend to keep them firmly fixed in position. The two ends of the scions are cut to a thin wedge form. Incisions are made in the bark with a narrow chisel—those above the wound sloping upward and those below sloping downward. Insert the scions firmly and wax heavily and securely all wounds made in the operation, especial care being exercised to press the wax firmly and neatly about the points of union of scions with the body of the tree.

The Useful Silo.

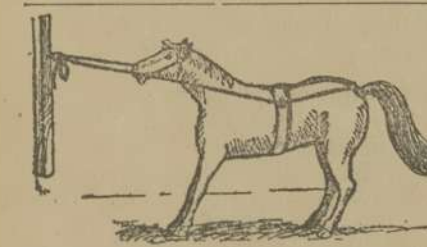
The silo is a text which is always inspiring to the man who knows its value and it cannot be preached from too often, writes S. C. Miller. Wherever it is seen it denotes farming. It solves the problem of turning into the highest efficiency that portion of the corn crop which fails to reach the desired maturity as feed. The silo can be filled at less expense than the same amount of dry feed can be cared for and it makes better feed. This is, after all, the main point to consider. Dairymen have learned that when cows are kept in the stable for five to seven months they cannot return as satisfactory profits if they are confined to a ration of dry feed alone. Ensilage gives succulence and is very much easier to masticate and digest than dry corn fodder. There is also a great saving of labor in feeding ensilage, over feeding dry corn fodder. The initial expense keeps many a silo from decorating the landscape, but it is good practice to economize in other directions to provide for it. Once built and rightly built it will not have to be renewed for many years, so the cost is spread out so thinly that it cuts no great figure in the business of feeding.

Incubators and Brooders.

The only way to raise chickens in large numbers in a short space of time and have them at the right time to get the biggest prices for them is to use incubators and brooders. By the use of the hen for hatching and brooding, enough chickens can not be raised in a season to make it pay. Many of my customers tell me that they would rather take care of 100 chicks in a brooder than to care for one old hen and her brood. You can set as many eggs in a medium-sized incubator as you can put under ten sitting hens. With the machines you have absolute control at all times. No lice to fight. No danger of eggs being broken or chilled during incubation. Eggs and chicks perfectly safe at all times. No work at all compared with the work that ten fussy old hens would cause you.—Agricultural Epitomist.

Curing a Halter Breaker.

Whenever I have a horse that breaks his halter by pulling at the manger I take a small rope, pass it around his tail and through loops on a girth at either side, then on through the rings at either side of the halter and fasten the two ends to the manger ring. When the horse pulls on the



halter it produces such unexpected results that he soon stops this bad habit.—A. Benson, in Farm and Home.

Goats as Brush Destroyers.

The Forestry Department has turned 800 Angora goats out on the mountain slopes in the west, in the hope that they will keep the weeds from growing on the fire-breaks. This work has been a serious expense and the goats are an experiment.

Renting a Farm.

The following is from the Almanac and Encyclopedia for 1910, published by the International Harvester Company:

"The greatest risk is always on the landlord's side in the rental of property. He is putting his property into the possession and care of another, who may be a person of doubtful utility. It is well to observe these rules and cautions: Do not trust to a verbal lease—let it be in writing, signed and sealed. Its stipulations then become commands and can be enforced. Let it be signed in duplicate, so that each party may have an original.

"Be careful in selecting your tenant. There is more in the man than there is in the bond. Insert such covenants as to repairs, manner of use, and in restraint of waste as the circumstances call for. As to particular stipulations examine leases drawn by those who have had long experience in renting farms, and adopt such as meet your case. There should be covenants against assigning and underletting.

"If the tenant is of doubtful responsibility, make the rent payable in installments. A covenant that the crops shall remain in the lessor's till the lessee's contracts with him have been fulfilled is valid against the lessee's creditors. In the ordinary case of renting farms on shares the courts will treat the crops as the joint property of lord and tenant, and thus protect the former's rights. Every lease should contain stipulations for forfeiture and re-entry in case of non-payment or breach of any covenants.

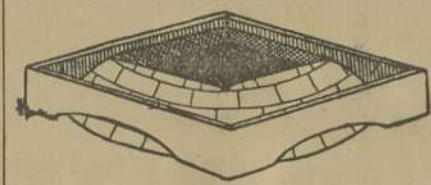
Fresh Manure.

Authorities say that fresh manure loses in the process of decay from 20 to 70 per cent of its original weight. Some tests conducted by the Cornell Experiment Station showed that two tons of horse manure exposed in a pile for five months lost 57 per cent of its gross weight, 60 per cent of its nitrogen, 47 per cent of its potash. Five tons of cow manure exposed for the same length of time in a compact pile lost, through leaching and dissipation of gases, 49 per cent in gross weight, 41 per cent of its nitrogen, 19 per cent of its phosphoric acid and 8 per cent of its potash.

A ton of average fresh horse manure from animals fed on ordinary balanced ration, contains about 10 pounds potash.

Concrete Platform for Cistern.

Make a square box of 2x10-inch stuff, any size you want the platform. Six feet square is a nice size. Cut out the pieces as shown in the cut so the frame will fit the crown of the cistern. Clean off all the earth and old matter. Set the frame level and about two inches lower than the cistern



curb. This will give fall sufficient to lead all water away from the pump. Make a mixture of cement and sand or gravel. Mix all together, dry, then add water to make a stiff mortar. Pack in the form and smooth off with a straight-edged board. Run a seam from each corner to the crown to prevent cracking.—Denver Post.

Poultry Pickings.

Watch closely and mark the hen that is laying an egg each day. She is the kind you want to perpetuate in the flock.

Weed out the hens that lay the small-sized eggs. They are the unprofitable ones and never will improve the quality of the flock.

There are some poultrymen who advocate pullets for breeders instead of yearling hens. It is generally found that well-developed fowls make the most prolific breeders.

If you have both pullets and old hens in your flock keep close watch and see which one is laying the most eggs. A little knowledge along this line may assist next season in selecting a flock of winter layers.

The Asparagus Beetle.

This is a troublesome pest and hard to fight. Clean cutting, especially in ridge culture, keeps them well under control in spring, but considerable harm is done later on by slugs or larvae. Poultry are very fond of these beetles, and a few fowls will soon capture the matured insects if allowed in a garden bed. An extensive grower of asparagus in Massachusetts finds that most of the beetle eggs have been sucked dry and destroyed by a species of small fly, which has made its appearance for the first time in large numbers this year.

Cost of Feed.

During an experiment in Cornell University a few years ago the average feed cost for eggs throughout the year was about 9 cents per dozen. Other experimenters give the cost of eggs in winter at 15 cents per dozen and in summer 8 1/2 cents. Under the present prices of feed eggs would cost about 12 cents per dozen, but it must be remembered that on the farm the hen picks up the most part of her living from the waste material that is scattered over the farm, so that the cost of a dozen eggs is a very small item of cash outlay.

Hints About the Farm.

All cows that are weak, extremely thin and coughing must be removed from the herd.

With good grass land it is considered that the plan of moderate top dressing with chemicals brings a larger income for the labor employed than any other system of management.



W HATEVER may be thought of the mass of superstition and "pipe dreams" which have become associated with comets during their thousands of years' existence, certain it is that comets have, as a cold matter of history, appeared with wonderful brilliancy at periods of the world's career when there were big doings. The three men who rank in the restricted and ultra-exclusive class of world conquerors—Alexander the Great, Julius Caesar and Napoleon the Great—had comets ambling around in the heavens at various important periods of their careers. Halley's comet itself—just the same old comet that's going to drag the earth with its tail—appeared over Europe in 1065, shining brightly for forty days, and it was hailed as a promise of his triumph by William the Conqueror just before the battle of Hastings, while at the same time Harold of England regarded it as an omen of his own overthrow. Comets appeared at crucial times in the lives of many other great men and at crucial periods in the careers of many nations. Comets have appeared before terrible wars, devastating famines, frightful pestilences and brilliant victories, from the days when Abraham was in his teens down the Rooseveltian era.

And Halley's comet, during all these generations, has been hustling around in space at the modest clip of something like 100,000 miles an hour. This comet appears to the view of men once in about every seventy-five years, requiring that length of time to move around its orbit. It was last seen in 1835. The comet is named after the great English astronomer, Edmund Halley, who lived between from 1656 to 1742, because it was he who definitely fixed the orbit of this comet and who accurately predicted its return in the year 1758 after it had appeared in 1682. He died sixteen years before the comet returned, but by his prediction he established a fame which will endure as long as does the comet. He was the first to discover and prove that the comets which come within the range of man's vision have fixed periods of return.

He felt that he would not live to see again the comet now known as Halley's, but he realized if his prediction was borne out that it would prove to posterity that he had made an amazing discovery. He relied on future

CURLS OR CREST.

Little German Teacher Cared Nothing for Personal Adornment.

In the recent admirable biography of Prof. Carla Wenckebach of Welsley, her close friend and successor, Margarethe Muller, has introduced to the general public a figure long honored for scholarship, loved for kindness and smiled at for quaint and delightful oddities of character and aspect within the bounds of the "College Beautiful."

"Little Bismarck," the girls sometimes nicknamed the genial but masterful German professor, with her short hair and serviceable clothes of unconsciously mannish effect. Mannish by intention she never was, but she had, from her tomboy childhood, a curious impatience of friperies and lack of personal vanity. She was a girl of fifteen when she wrote home casually from school:

"By the way, I wear my hair short now; got rid of braids, hairpins and appendages six months ago; feel very free and light without them. My friends wall about the loss of my 'beautiful thick hair,' but what is the use of beauty if it causes continual annoyance?"

Some years later, in New York, she received a comically apt reply to this youthfully philosophic query. She had applied to an agent to secure her a position as governess, and was promptly assured that if she wished a recommendation she must wear more stylish clothes and change her way of doing her hair.

"The essential consideration," the agent said, "not what's in your head, but what's on it." So I went to a little Parisian, who knew what the matter was even before I explained. "If you don't want to take the trouble to dress your hair every day," she said, "why don't you wear a false front?" I was just about to shout a determined Never! when she dextrously put one of those curly things on my head. And really—the little curls framed my face quite pleasingly, and looked exactly as if they had grown on my own scalp. Now if fortune comes my way, you will know what has attracted the fickle thing."

Quite certainly, after fortune was attracted, the commercially inspired curls disappeared forever. All her girls and her friends remember well what one of them describes as "that wonderful square head of hers, with its crown of short blonde hair, which bristled up over her fine brow like the crest of an alert bird."

For details of costume or coiffure she never learned to care, although on

NINE NORTH POLES IN NINE YEARS.



WHY IT IS POSSIBLE THAT EXPLORERS MAY DISCOVER THE BIG NAIL.

The position of the poles is not constant, and observations have proved that there are a yearly counter-clock elliptical movement of some feet, and a counter-clock circular movement of some feet in diameter in a period of 428 days. The first may be due to seasonal meteorological causes; the second is far more difficult to explain. In view of these movements it is obviously impossible for any explorer to set up a staff that shall, as it were, lengthen the axis of the world and insure that it will do so for all time. The fact that the axis of the earth shifts from time to time was proved by Eeler years ago, but it was only lately that the displacements were measured with anything like accuracy at a number of stations.—Illustrated London News.

festal occasions she donned, with a childlike taste for mere brightness, an abundance of sparkling ornaments and fabrics of startlingly brilliant hues. Her interest in her own appearance remained small; but to beauty in others she was keenly responsive. In her last illness, when a lovely young student friend came to call, she insisted that the girl's chair be so placed that she, from her bed, could comfortably see the "pretty pussy" all the time.—Youth's Companion.

Bored talk about themselves; gossips talk about others.

What It May Come To.

"I've just thought of a brand new philanthropy," said Mr. Dustin Stax. "What is it?" "I'm going to found a home for ex-billionaires who impoverished themselves by donations."—Washington Star.

Bolsterous Mirth.

"What makes you laugh so loudly whenever Bliggins tells a funny story?" "In self-defense. I want to make so much noise he can't tell another."—Washington Star.

LIQUOR BILL FOR 1909.

Whisky Alone Cost Consumers Three Hundred Million Dollars.

During the fiscal year 1909, 116,852,908 gallons of spirits were distilled from grain in the United States. What the value of this flood of liquor may have been cannot positively be stated. The output of the distilled malt and vinous liquors and allied products in the year 1905 was reported by the census bureau to be worth more than \$440,000,000. In the year 1909 1,591,738 gallons of brandy, 616,305 gallons of rum, 2,497,070 gallons of gin and 56,183,652 gallons of whisky were placed on the market in the United States. The total value of all these products at the place of manufacture was probably not less than \$135,000,000. But these figures in no way measure the cost of distilled liquor to the consumer, McClure's says. They do not include the government internal revenue tax of the cost of wholesaling and retailing the "goods." As sold in the "saloon" at 10 or 15 cents a "drink," the cost of whisky, or what passes for such among consumers, is not less than \$6 a gallon. This would mean that the annual bill of the American public for whisky alone would be much more than \$300,000,000. There are many who place it at twice as high a figure because of the excessive adulteration undergone by the liquor for the purpose of increasing its volume.

Some Booming Towns.

If we are to take the growth of cities and towns in the Dominion of Canada represented by the provinces of Manitoba, Alberta and Saskatchewan there is a wonderful future for some of them. Winnipeg, the largest city, in eight years has increased from 42,000 to 140,000.

Other places for the past eight years show this expansion: Calgary from 4,900 to 29,300; Edmonton from 2,600 to 25,000; Regina from 2,200 to 13,500; Brandon from 5,600 to 13,000; Saskatoon from 113 to 12,200; Moose Jaw from 1,600 to 12,000; Lethbridge from 2,100 to 10,000; Prince Albert from 4,000 to 7,000; Fernie from 1,900 to 5,300; Medicine Hat from 1,600 to 5,300.

In these places \$47,000,000 has been invested in new buildings in the last three years, and in five years their taxable values have been increased from an aggregate of nearly \$57,000,000 to about \$220,000,000.

A farmer came to town to-day with a lot of errands to perform for his women folks. "I'd rather take a whipping," he said, "than buy for women."