

FARM AND GARDEN.

MATTERS OF INTEREST TO AGRICULTURISTS.

Some Up-to-Date Hints About Cultivation of the Soil and Yields Thereof—Fertilization, Viticulture and Floriculture.

BULLETIN FROM the Indiana Experiment station says: Young fruit trees are very apt to be injured during the winter by mice and rabbits gnawing the bark. This is especially true if the orchard has been neglected during the summer season. A heavy growth of grass or weeds about the trees makes excellent nests for mice during the winter, and where rubbish heaps have been allowed to accumulate in the orchard, especially if it is near a forest, rabbits will almost invariably congregate. Under these conditions the young trees will almost certainly suffer from the ravages of one or both of these pests. It is important, therefore, that this matter be attended to at once.

There are various remedies recommended for these evils; the first and most successful of which is clean cultivation. If this has not been followed then remove all loose mulch, dead grass and rubbish of various kinds from the immediate vicinity of the base of the trees. This will destroy the nesting places of mice, and will go far towards protecting the trees from injury. Then, in addition to the above, make a smooth, compact mound of earth, a foot high, about the base of the trees, just before the ground freezes. These two precautions will be all that is necessary to insure protection against mice.

Rabbits are not so liable to injure trees where there are other small plants, such as young grape vines or nursery stock in the immediate vicinity of the orchard, as they seem to delight in cutting off the young tender branches in preference to gnawing the bark of older trees. It is always safe, however, to protect the trees, and a favorite method is to wrap the trunks with closely woven wire screen, such as is used for screen doors. This may be cut into strips eighteen inches to two feet in length and wide enough to completely encase the body of the tree. These may be tacked on or the edges woven together, and if they do not fit too closely may be left on for several years. Instead of the wire screen, ordinary roofing tin is sometimes used. Sheathing paper is also used with good effect, placed on the tree in a similar manner. If one is located near a slaughter house, a very convenient as well as effectual method is to wash the trunks of the trees with blood or rancid grease. This, however, is liable to be washed off by rains, and would need renewal several times during the winter. These and doubtless other remedies will prove effectual if properly applied. By giving this matter immediate attention, much damage to the young orchards may be prevented. Jas. Troop, Horticulturist.

Education on the Farm. The farmer's profession can be elevated above its present standard only as the children improve upon the methods of their parents. President Chabourne of the Massachusetts Agricultural college once said that the way for young men to rise in the world was to stand upon the shoulders of their fathers. We miss half the wear and tear in life when we acquire the faculty of profiting by the experience of other men. It proves nothing, that some finely educated man has failed in farming, or that some uneducated man has succeeded. Education will help a man, but it will never make one. When it can be proved that a majority of educated men upon the farm are failures and a majority of the uneducated successful, we shall all begin to question the propriety and value of education for the farmer's profession. But until that is proved we shall believe that the farmer's business stands upon the same basis that supports all other kinds of business, that the general education which is useful to the doctor, the lawyer, the man upon the board of trade is just as valuable to the man who tills the soil, and that professional training in schools of agriculture will have the worth upon the farm that the knowledge and discipline of the law school has in practice before the courts.

One thing more. The circumstances of a farmer's life are such that he is brought into closer, because more constant contact with his family than men engaged in other pursuits. His partnership with the companion of his life is, in a business sense, certainly a very close one. Side by side they often perform the same kinds of labor, and the silent partner not unfrequently bears the heaviest burdens. Many of us in the rush and amid the distracting cares of our business, forget that woman's strength is not man's strength, that a ceaseless monotony of toil takes laughter from the lips, roses from the cheeks and health from the body. No sensible man would desire that farmers' wives should be transformed into usefulness; but it should be the aim of farmers to make their mothers and wives and daughters something more than mere household drudges, to give them an opportunity, as far as means will permit, to satisfy those fancies and tastes, to cultivate those graces and those talents that are the beauty and the charm of true womanhood.—H. C. Adams.

Farm Ownership. It does not require the compilation of figures to show that there is a change gradually working itself through the

ownership of farm lands. It is a fact open to general observation that the farms of the country are gradually dropping into the hands of tenants, and in our opinion it is that much worse for the country. No one will dispute that the farmer has many advantages in working land owned by himself that can never accrue to him while the land is owned by another. One of the leading causes to be assigned for this state of things is the fact of a desire to over-reach one's self in the possession of lands. To make use of a significant Western expression, it comes of biting off more than one can "chaw." We have long advocated as the best policy for farmers to pursue in this matter that of cutting down their possessions in lands, rather than that of extending them. When the farmer makes up his mind to this order of things it will be some time before the sheriff closes him out. In the course of the next ten years we look for a stronger pressure than ever before brought to bear upon this matter of reducing the size of the farm. A new style of farming is gradually to come into vogue that will necessitate the extensions of irrigation systems and the growth and expansion of the subsiding idea are destined to lead in the direction of intensive farming in the West. We are aware that it used to be fashionable to spread one's self out over a large area in his farming operations with a view of reducing the cost of production of crops. This day has passed. Things have changed and if the farmer of today expects to continue to own his own land he must give more attention to each individual acre and see that it does its share.—Nebraska Farmer.

Bite of a Hog.—It is a serious thing to be bitten by any animal, for even though there may be no poisonous glands, the saliva in the mouth of animals that bite is always more or less poisonous. The bite of the hog is more apt to be serious than that of any other domestic animal. It requires skill and activity to handle large numbers of hogs without endangering those who hold them. The hog is an omnivorous eater, and is not at all particular about getting particles of dirt or excrement with its food. Old hogs, which are most apt to bite, often destroy mice and snakes, and though they get no venom in their mouths, it will poison wherever such saliva reaches abraded skin. No one who has a sore on his hand should be called upon to assist in butchering hogs, as he may be infected from contact with the saliva without being bitten. In all cases of bite or cut a wash of some antiseptic should be applied. Diluted carbolic acid in the proportion of one to fifty of water is good, as is also a weak dilution of corrosive sublimate in proportion of one of the poison to one or two thousand parts of pure water. These poisons thus diluted do no harm, and they will prevent poisons from working in cuts and bruises of any kind.—American Cultivator.

Price of Smutted Wheat.—It was not pleasant to the millers to have the public know that they were making choice milling wheat of that branded "rejected" by the inspection department, because it was even slightly smutted, and at a cost of not over half a cent a bushel, though they were buying it at 6 to 12 cents below what would be its market value if not smutted. The disclosure of the scheme seems to have had one good effect, it has already brought the price of smutted wheat, if otherwise good, up to within 5 cents a bushel of the same quality if not smutted, and there is an evident desire on the part of millers to buy the former, at the narrower margin, which is not strange, all things considered. Much of the smutted wheat is otherwise of very fine quality; it would seem that smut, like death, "loves a shining mark," and selects the choicest wheat for its victims. If such wheat can be bought for even 5 cents below its true market value, and can be made pure at a cost of half a cent a bushel, the competition for its possession will naturally be sharp, and the margin of price between smutted and unsmutted will naturally grow smaller and smaller.—Farm, Stock and Home.

Clover and Alfalfa for Hogs.—In most of the soils in the Central West red clover must be relied on chiefly for the green food of growth. But where the soil is very deep and porous alfalfa does finely. On such soil alfalfa will supply forage for 15 to 20 hogs per acre for the season. This is especially fine for pigs and growing shoats. It has been found that pigs will gain 100 pounds each during the season from May to September, and 100 pounds of pork cannot be produced so cheaply on any other feed. The pigs will come out of the field in autumn in capital condition to fatten with corn or small grain. The alfalfa in a hog pasture could be mowed once or twice during the summer, or whenever it begins to get hard and woody. This will provide plenty of young and tender herbage, which is more nutritious, weight for weight, than forage from the older plants, and if the swine are provided with this food in its most nutritious condition, their growth will be most rapid.—Ex.

Blood Tolls.—Recently 308 American beavers were sold in London at 7 cents per pound, an average price of \$97.58, the herd bringing the snug sum of \$30,954.64. The Polled Angus in this shipment brought full \$100 each; the Herefords came next, and next the Short-horns. The average weight was 1,360 pounds. These beaves, it is said, reached their destination without loss and actually in better condition than when placed on shipboard. This shows that the cattle were carefully managed up to the day of sale, and that the breeding and treatment were profitable.

H. B. Gurler thinks the first move for a dairy farmer who has not tested his cows, should be to have them tested, and become acquainted with them individually. Weed out all the unprofitable ones. Then select a bull from some dairy breed.

THE HEART'S CURRENT

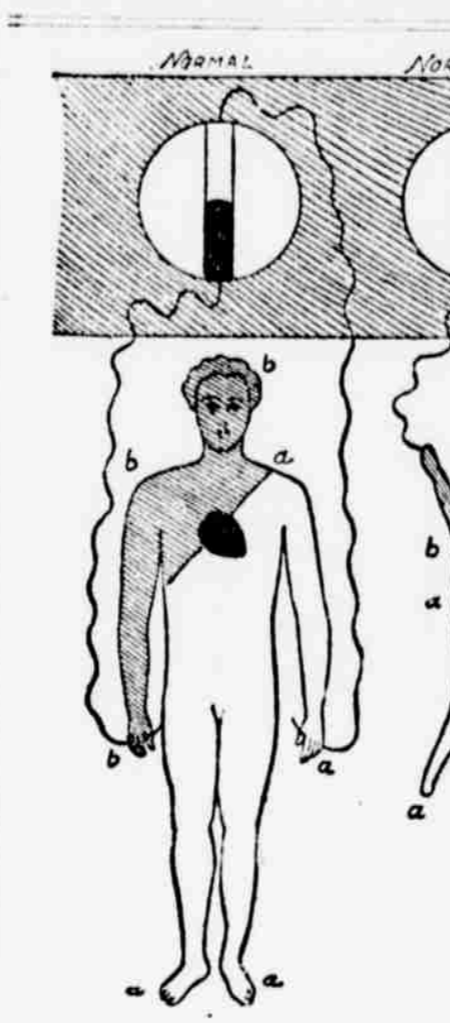
INGENIOUS INSTRUMENT TO REGISTER ITS STROKES.

Important to Medical Science—The Hands Are Placed in Water and Grasping the Wires of the Meter Closes the Circuit.

R. WALLER, in London, announces new discoveries about the electro-motor capacities of the human heart. It has been known that each heart beat is accompanied by an electrical vibration, the strength of which has escaped measurement on account of the lack of a proper medium to register the electrical vibration. But the newly invented Lippmann quicksilver electrometer does this. It indicates by the rising and sinking of the mercury the volume and direction of electro-motor power coming within the sphere of its influence, and it has turned out to be the long-sought-for electro-scope applicable to this phase of medical science.

It depends for its action on the elementary law that bodies charged with like electricity repel, while those charged with unlike electricity attract each other.

The man who wishes to test the electro-motor power of his great central muscle, which regulates and compels the circulation of the blood throughout the body, places both hands in two basins containing water and holds between his fingers the wires of the elec-



TESTING THE HEART'S ACTION BY ELECTRICITY.

trometer. By this means the circuit is closed, and the quicksilver, obedient to the wire, registers minutely the heart's electro-motor power.

This looks simple enough, but it took a great many experiments to arrive at this point. Dr. Waller first tried to close a circuit by bringing both feet of a man in connection with the wires. This failed to work. After that he tried one foot and the left hand, then the right hand and the head, but in both instances the quicksilver remained stationary. It responded, however, when the right hand and one of the feet or both hands were connected with the electro-scope.

These failures established another truth. It is well known that the heart has an imperfect resemblance to a cone, the base of the cone being uppermost, the apex being situated downward and to the left. This is the normal condition and position of the organ. In experimenting with the electro-scope the scientist found that the human body is divided into two very uneven parts by an imaginary perpendicular line that cuts through the base of the heart. One of the parts marked A and one of the points marked B in the illustration will affect the quicksilver when brought simultaneously in contact with the electro-scope; a circuit cannot be closed by joining two As or two Bs together.

There are certain conditions of illness or disease which cause the apex of the heart to be turned toward the right. In such abnormal cases—as Dr. Waller's investigations have proved—the two halves, each of which is susceptible to the electro-scope, run in an opposite direction. In a dog or cat the heart is divided more symmetrically, and the dividing line is straight, as shown in the picture of the cat.

Miss Braddon's Productions. Some one with a taste for figures has noticed the fact that Miss Braddon, the novelist, has in the thirty-three years since she began to write produced just sixty romances, each of them in three volumes, making 180 in all. She has, therefore, made copy enough for six printed pages on each day in all those years.

A Novel Desk. An out of the ordinary dish at the wedding breakfast of Mr. and Mrs. Larding at Brockton, Mass., the other day was peaches canned twenty-two years ago in Mercer, Me., the day after the bride was born.

WOODEN-LEGGED HEN

The Man Who Hated Anything but the Truth.

"If there is one thing I despise more than another," remarked a gentleman the other day to a Punxsutawney Spirit reporter, "it is a man who does not regard the truth with sacred awe. I notice that the local papers are full of big-eggs, big-pumpkin and other stories of that sort that have a little merit in them, and I fear that some of them do not even have the redeeming feature of being strictly true. I believe they are exaggerated. Now, I have a story for you that is not only a good one, but it is true. What does a story amount to if it isn't true? Any fool can make up a lie. I hate a liar. Here is my story: 'I was down in Indiana County the other day and stopped at a farmhouse for dinner. After dinner I sat down on the porch to take a smoke. I saw an old hen hobbling about in a very awkward way and I said to the farmer's wife: 'Madam, what is the matter with that hen?'"

"That hen," said she, "is lame. It has an artificial leg."

"Oh, it has, has it?" "Yes, you know there was some very cold weather last winter and one night the hen froze her leg off. I pitied her. I nursed her and doctored her up and she finally got well. But she couldn't walk on one leg. So I just stuck a clothes-pin on the stump of her leg, tied a string around it to hold it on, and she does very well."

"Well, well," I said, "if that isn't strange!"

"Yes," replied the good lady, with a smile, "but that isn't the strangest part of it."

"No?"

"No, indeed. The strange part of it happened afterward, and one would scarcely believe it if one hadn't seen it."

"What was it?"

"The girl arrived in due time, but she was so much prettier than the unmarried brother had expected that he was loath to accept his brother's cast-off wife. Finally he married the girl and then refused to compromise the breach of contract by paying what his brother had expended in getting her to this coast. A quarrel followed and the girl went with a rifle ball and landed him in the hospital for three months. The other vowed vengeance and they do little now but watch the mountain trails, fully prepared to renew hostilities at a second's notice."

LIFE NOT WORTH TEN CENTS.

Small Value Put Upon It by a Man Who Was Saved from Drowning.

From the San Francisco Post: A fat man carrying a gun and leading a dog made a dash down Market street for the Oakland ferryboat. He could have caught it if he had walked quietly along, but he became excited, and old Time commenced having fun with him. The dog would run on the wrong side of the telegraph poles and hydrants and tangle up his chain in the legs of pedestrians. By the time spent in apologizing and untangling the dog he was delayed until the little gate closed in his face. Then he ran around to the big gate, dodged around a mail wagon, and made a run for the boat. The deck hands raised the apron and the boat moved slowly out, but he was determined to catch it, and, gripping his gun and dog chain a little tighter, made a run and sprang into the air. The boat was only six feet away, but the dog balked the apron. The hunter stopped in the middle of his leap, his feet flew out toward the steamer, and he dropped into the bay like a load of hay. A small boy who was fishing from the wharf dropped his pole, splashed into the water and towed the fat man to a pile, where he clung till a boatman pulled him out.

"My boy, you saved my life," he exclaimed enthusiastically, as he kicked the dog and tried to wring the water out of his shotgun. "Let me reward you."

He thrust his hand into his clammy pocket, and fished out a wet 10-cent piece. "There, my boy, take that; but don't spend it foolishly."

"No, sir; I can't take it, sir." The boy pushed the generous hand aside. "I didn't earn it."

"Why, you saved my life, boy."

"Yes, I know it, sir, but it ain't worth 10 cents."

The Wholesale Poisoners of London.

The wholesale attempts that are continually being made to poison the Londoners are well shown in the annual report of Dr. Saunders, the medical officer of health for the city. Stockraisers sent up last year no less than 430 tons of diseased meat; that is, excluding Sundays, as the hospital points out, about a ton and a half for every working day of the year. Now, a ton and a half of diseased and putrid meat reduced to pounds, consists of 3,360, and as each pound is amply sufficient to poison its man, woman or child it follows that our cousins in the country are willing to poison Londoners to the tune of 3,360 per diem, or, excluding Sundays, at the rate of 1,051,680 per annum. In other words, if all the diseased meat which is received would be eaten it would not take more than four or five years to accomplish the poisoning of every man, woman and child in London!

Breton Statues.

Three statues are about to be erected to famous Bretons in Brittany. At Plouernel, known for its "pardon," it is Dr. Guerin, who introduced the transfusion of blood into modern practice, who will be honored; at Lesneven it is General Le Flo, Thiers' minister of war, and at Dinan the Comte de Duguesclin, whose memory Coquelin and Derovalde have revived, is to be represented on horseback. The money for a monument to Renan at Treguier has not been raised.

The First Printer.

The corporation of Mayence has decided to celebrate the five hundredth anniversary of the birth of John Gutenberg, the inventor of printing, with great pomp and splendor. The celebration will take place in 1897, though it is not agreed whether he was born in 1397 or in one of the three years following.

Nothing to Wear. "Prepare to die!" hissed the heavy villana. "Goodness! Not in this rowdy rig, I hope," replied the heroine, with an apprehensive glance toward the mirror.—Detroit News.

A SINGULAR FEUD.

Brothers Who Felt Out About a Matrimonial Arrangement.

"The queerest feud I ever heard of," said M. C. Allen, the well-known sportsman, to a Minneapolis Journal man, "is one that I encountered while hunting in southern Humboldt county. I noticed our guide carried a repeating rifle, a big revolver and a knife half as long as his leg. He proceeded with the greatest caution and appeared to be on guard continually. I knew there were no hostile Indians in that country and my curiosity was aroused. Finally I asked him what the trouble was."

"Oh, I yooost look out for some fellow," he replied in his Swedish dialect. "What's the trouble, anyway?" I inquired.

"O nuttin' much. Maybe a big man hit a roon watch me pretty close, too."

"Who is he?"

"Oh, he is my brudder. Las' time I fix him plenty, you bet. He come back now und maybe he fix me."

"Inquiry developed the fact that the brothers had settled in Humboldt some years ago and our guide, who was married had left a pretty sister-in-law in Sweden. The brothers talked the matter over and finally agreed that the married one should send for the girl, and when she reached this country he would give his old wife to his brother and take his sister-in-law."

"The girl arrived in due time, but she was so much prettier than the unmarried brother had expected that he was loath to accept his brother's cast-off wife. Finally he married the girl and then refused to compromise the breach of contract by paying what his brother had expended in getting her to this coast. A quarrel followed and the girl went with a rifle ball and landed him in the hospital for three months. The other vowed vengeance and they do little now but watch the mountain trails, fully prepared to renew hostilities at a second's notice."

BOBBY'S PRAYER CUT SHORT.

Finished for Not Including the Wants of His Sister.

From the Washington Star: Bobby is a small man of 5 years, living on Mount Pleasant way. Though lisping in speech and four summers the Junior of his sister Frances, he yet fully feels the importance of having been born into the broad estate of man, looking pityingly indeed upon his sister, whom fate unkindly sent into the narrow and trammelled sphere of woman, and condescendingly referring to her in general conversation as "a little dirl."

"The other evening Frances, her night-'now I lay me' properly said, was already tucked up in her little brass bed, when Bobby, still kneeling by his own couch, deemed it wise, in view of the approach of Christmas, to supplement the regular prayer with a petition for a few items which he considers the necessities of life, so he began afresh: 'And, oh, Dod, I flink it's doin' to be told, send me a sled, please—and 'preas tart—and—a wockin' horse—' (and then, as his views on the subject of transportation grew and enlarged, 'and a bicittle—and—')

At this point Frances became interested and put in: 'Pray for me, too. Pray for me, I need a lot of things.'

"And a pony," continued Bobby, still petitioning in his own behalf.

"Pray for me, pray for me," Frances piped in accompaniment.

"Wif a h'ness and waddog," quoth the small suppliant.

"Pray for me, pray for me," still chorused Frances.

"And, oh, Dod," concluded Bobby, after a short pause, in which he evidently entertained for a moment, but finally dismissed as unworthy the consideration of a man, the idea of praying for dolls and such foolish feminine fancies, "and, oh, Dod, fordivve Frances' sins. Amen."

That prayer meeting broke up that very instant, and in a row, for though Frances may be only "a little dirl," she is at the same time an incipient new woman, and the new woman, as everybody knows, will not endure patronage from anything bearing the semblance of a man.

And thus it came that there were shrieks of pain from the petitioner, mingled with loud and energetic views on the woman question from the petitioner, which sounds of warfare died away in silence only after mamma, ex-cusing herself from her card party, had read the combatants to sleep.

He Wasn't Afraid.

"When I was holding up trains in Nevada," began City Attorney Creswell, "to collect the railroad taxes—being district attorney of the county through which it ran—I had to assist me as brave a man as I ever knew. He would think nothing of walking right up into the muzzle of a gun and peeping down the barrel.

"A passenger train came in and we seized it. I ordered the engineer and fireman out of the cab and put my assistant in, with instructions to hold it. The whole town was out to see the hold-up and, with the passengers from the train, crowded around and poked fun at us. Suddenly the engineer shouted to my man in the cab that the water was about out of the boiler and would blow up in a minute or two.

"He glanced at the water gauge and seeing no water in the glass looked about him in an uneasy way for a moment and then commenced climbing out of the cab. He started to walk away in a slow, dignified stride but his step kept getting quicker till at last he broke into a run. The crowd jeered him but he only ran the faster till he was out of danger.

"Look here, Jim," said I, "I thought you were afraid of nothing."

"Well, I don't feel a blamed bit skeery on my account," he replied, very deliberately, "but somehow or other I couldn't hold my legs down. They were just determined to do some fast work an' I couldn't stop 'em."—San Francisco Post.

A Dirigible Balloon.

Like the sea serpent, the inventor of the dirigible balloon travels eastward, ho! He is now in Canton, China. An extra smart mandarin, Ti Lien Fou, lately invented a really dirigible balloon, and that has been seen traveling through the air at various heights and in every direction, "even during terrific storms." It is constructed wholly of steel. Ti Lien Fou, it is said, will shortly come eastward, ho! to see Edison at Menlo park in regard to further "improvement" of this aerospentive wonder.

The Contagion of Crime.

A Dr. Aubry, in writing a book on "The Contagion of Crime," used as an example a notorious family sprung from criminal parents who died early in the century, nearly all of whose members have records in the criminal law reports. A respectable grandchild of the criminal couple recently sued the doctor for damages and obtained them, the court holding that scientific research is no excuse for causing pain and discomfort to an innocent person by defining his grandmother.

Imprisonment for Debt in England.

Imprisonment for debt seems to be becoming common once more in England, especially in mining and manufacturing districts, 7,628 persons having been sent to jail for that cause in 1894, while 7,775 were sentenced for all varieties of crime.

Improving the Casar's Port.

As the port of Cronstadt is to be closed to merchant vessels, the port of St. Petersburg will be excavated to the depth of the canal leading into it, twenty-two feet, and enlarged so as to hold at least twenty-four large steamers at a time.