FARM AND HOUSEHOLD.

How to Grow Corn.

Repeated experiment has illustrated the efficacy of careful selection of seed corn, the necessity of generous broadcast manuring on worn lands and the advisability of planting in drills and giving flat culture.

Professor Sturtevant, after several trials, has decided that the kernels from one portion of the car are as good as those from another, and that there is certainly no inferiority for the tip seed. He has found no evidence favorable to the breaking of the roots of corn in order to influence the crop. On the contrary, excessive root-pruning of corn during growth has proven unfavorable in the clay soil of the station.

As regards distance of planting, it is quite evident that distance must vary with the variety grown and with the rainfall and general climatic conditions of the locality. At the New York station trials with Waushakum corn indicated that three and one-half feet by three and one half feet is the best distance for that variety. The influence o weeds in the growing crop of corn seem productive of injury not only from their use of food supply of the soil but from the shading of the ground .- New York World.

Improvement of Live Stock.

To those who make farming a business -farming in its best sense-the subjec of the greatest interest is live stock, for without live stock there can be no permanent success in agriculture. Mixed husbandry is the best of all husbandry: and mixed husbandry without farm animals would be an absurdity, something that only a lunatic would persist in. Generally all this is readily allowed; it is seldom, however, that it is properly and in the right spirit acted upon. In this inaction is implied incapacity, which is the most melancholy feature of the situ- in that way they would give the whole ation. The chief hope of the future, as party their liberty. to all this, is the fact that there is a scope for the exercise of its greatest powcan farmer to adopt the same practice: or to throw up the sponge. Machinery is doing all the drudgery of the farm, consequently more time can be given to the farm stock. The first step toward males. It is not enough that the male be a good-looking grade. A grade may look just as well as the very best of the kind, but it has been demonstrated that his excellencies are not transmittable, while the qualities of the thoroughbred are fixed and hardly ever fail to be transmitted. It is not infrequent that grades are disposed of to the unwary for thoroughbreds, hence great care should be used in buying and none but reliable dealers be trusted, for, if the start is wrong, time and money are thrown away. -Journal of Agriculture.

Fish may be scaled much easier by dipping into boiling water about a minute.

To spoil bread, use poor flour and sour yeast and let it rise until too light and it runs over.

into a glass jar or tumbler it can be safedone by first putting a spoon in the dish .-- Good Housekeeping.

Story of a Wampum Belt.

There is in the possession of the descendants of Colonel Andrew Ellicott. of Columbia, Penn., says the Erie Dispaich, a wampum belt of rare beauty and value, which is preserved as a memento of the shrewdness and skill of the great surveyor, by which he not only became the possessor of the belt, but saved his life and the lives of many others.

Directly after the purchase of Louisiana from the French government Colonel Ellicott was sent by the United States government to survey the boundary line between the new territory and Mexico. which then included Texas. He was accompanied by a large corps of engineers and 100 government troops. They had penetrated into the interior of the then wild country, when one day Ellicott and his engineer corps found themselves surrounded by a large body of Blackfeet Indians, by whom the entire party was captured. Colonel Ellicott had a half-breed interpreter, who found out that it was the intention of the Indians to massacre the white captives, and he informed the chiefs that his master was a great medicine man who could do many wonderful things, among them being his ability to kill a man, or any living thing at a distance of 150 yards, while the object he shot at was hidden from view behind a tree, and he would not aim at it or shoot through the tree. The chiefs said that if the i

preter's master would kill a wild tursey

Colonel Ellicott was not a good rifle growing belief that the highest order of shot, but he was able to do many clever mind and business ability can find ample | things in shooting by means of mechanical tricks. When the decision of the ers in the study of agriculture. In all chiefs was given they procured the more highly civilized countries of the turkey and told Colonel Elli-Europe can be seen the practical demon- cott to exhibit his power. Confident of stration of these ideas, and the necessi. his success, he drove a stake in the Field is grizzled and gray, but his eye is ties of competition will force the Ameri ground a few feet beyond the tree with clear, and he has a brisk step, which be-

TWO RICH AMERICANS.

Field, the New York Capitalist-Armour, the Chicago Pork Dealer. Cyrus W. Field is one of those distin

guished Americans who have fought their way to wealth from a humble begin-If you wish to pour boiling hot liquid ning. He is one of four brothers who have made their mark at the bar, in the pulpit and on the bench. Mr. Field was not especially known until his exertious resulted in the successful laying of the first Atlantic cable. This great work was an experiment, and a most expensive one to its promoters until it was actually proved successful. For more than twelve years Mr. Field gave his whole time to this work, though the idea did not originate with him. The cable of 1857 broke, and that of 1858, as is well known, parted after it had been working about two weeks, and just at the time when it was thought it was ready for business. Notwithstanding this terrible disappointment, the work was continued. In 1865 there was another failure, but a year later a cable was laid which was successfully used. The perseverance of Mr. Field, who never lost his

faith during all the trying years, is one of the strong characteristics which has marked his whole career. When the cable of 1866 got into good working order Mr. Field sent out an expedition to pick up the broken cable of 1865, and the success of this wonderful enterprise caused almost as great a sensation as the completion of the first cable had done. For several years Mr. Field rested from his labors or traveled. He went around the world, visited the Arctic re. gions and Africa, and became famous for his excursion parties of friends to Iceland or India. During the latter part of his life Mr. Field has again become active in the business world. He took a leading part in the reorganization cf the Toledo, Wabash and Western railroad, and lately he has been largely interested in other corporations, notably the Western Union, and the New York Elevated roads. Mr. Field's holdings have made his name quite prominent in Wall street. A year or more ago he built in New York one of the finest of. fice buildings in that city on a beautiful site near the Battery. In appearance Mr.

and Kansas City, and employs about 10,-000 men. Its foreign trade is very large,

and it has recently shipped large orders of canned beef to England for use in the Soudan.

Mr. Armour is a hard worker. He is at his office every morning at 7 o'clock, and never leaves until 6 o'clock in the evening. Winter and summer he retires between 8 and 9, and all the social duties have to be performed by his charming wife and two sons, one of whom, aged twenty-one years, is in his father's office. Mr. Armour is perhaps the most liberal of all the Chicago merchants in his contributions to charitable objects, but being so much engrossed in his business affairs he allows that beneficence to come from the hands of his wife, and accordingly holds an inconspicuous place as a philanthropist before the people, who are but little acquainted with him .-Philadelphia Press.

Curious Things Under Water.

Professor Verrill, of the United States Fish commission, reports that the zoological results of the deep sea explorations last year were of great interest. Many additions to the fauna of great depths were made, and a large proportion of them are undescribed forms. Some of the fishes were of great interest. Huge spiny spider-crabs over three feet across were taken in 1,000 to 1,230 fathoms. and another very large crab occurred in great abundance in 500 to 1,000 fathoms, while in 2,572 fathoms a large and strong crab-like creature was taken. Many curious shrimp, some of them of large size and brightly colored, and often with perfect eyes, occurred in most of the deepest dredgings. Several very interesting new forms of star-fishes, ophiurans, aad holothurians were dredged, some of them in large quanti. ties, even in the deepest localities. Several interesting new forms of corals, gorgonians, sea-pens, and allied forms also occurred. Numerous specimens of huge sea-urchins with flexible shells were obtained from several different stations, in 600 to 1,100 fathoms. Some of these are about ten inches broad. One seaurchin not before observed north of the West-Indies, was taken in 991 fathoms-Most of the deep-sea starfishes belong to the genius Archaster and other closely related genera.

POPULAR SCIENCE.

Water may be as clear as crystal and yet carry typhoid fever from a hamlet on one side of a mountain to dwellers on the other, as in the celebrated case at Lausanne, Switzerland.

The opinion is entertained now by many men of science that the art of making artificial stone for structural purposes is prehistorie, and that the Pyramids were, in fact, built of artificial blocks manufactured from the surround! ing plain.

An Atlanta man claims to have discovered a new principle in hydraulics which upsets the old theory that water will not rise in a vacuum more than thirty-three feet. He says he can pump water any distance required, and partially proves his assertion by pumping it 600 feet without a valve and on a direct vertical rise.

A curious observation has been made by Dr. Copeland, an English astronomer. While watching one of Jupiter's satellites he was able to see it pass over its own shadow on the planet. For this to have happened, the sun, the earth, the satellite and the part of Jupiter's disk occulted must have been all in one straight line, and, as seen from Jupiter, the earth must have appeared making a transit across the sun.

At a recent German scientific congress Dr. S. Hoppe, of Hamburg, endeavored to prove that the electricity of storms is generated by the friction of vapor particles. This view was strengthened by experiments in which compressed cold air was allowed to rush into a copper vessel containing warm moist air, a large amount of electricity being thus produced. He concludes that the rise of a column of warm moist air into the colder atmosphere above will be followed by a thunder storm if it acquires sufficient velocity to prevent neutralization of the electricity generated by the friction of the air. Hence, he regards open districts as more liable to thunderstorms than wooded regions, where the trees prevent the rapid rise of humid air currents.

A French writer gives a long list of apparently well-authenticated instances of the finding of live toads in solid masses of stone, referring in particular td such a discovery made in 1851 by three warkmen of Blois on breaking open a large piece of flint. The strength of the evidence thus presented leads him to insist that it is unwise to pronounce the phenomenon absolutely impossible, although none of the reported cases are quite beyond the suspicion of fraud. To explain the occurrence, if genuine, it seems necessary to suppose that the creatures have existed in their close prisons during the unnumbered years in which the plastic material has been hardening into rock. That they may endure a somewhat prolonged confinement was shown by Seguin, who, in 1822, enclosed a toad in a plaster covering, and found the reptile alive and in good condition on breaking the shell ten years later.

Insect Pain,

Shakespeare betrayed an ignorance of insect anatomy when he wrote, "The poor beetle that we tread upon, in corporeal sufferance feels a pang as great as when a giant dies." Minute dissections have proven that insects, though possessed of nerves, have no well-defined organs representing the brain, the seat of concentrated feeling, where all the per yous connections meet. They have, in. stead, a chain of ganglia or bundles of nerve-substance, from each of which nerves branch out to contiguous parts; so that the sensations are not all carried to one grand focus of acute sensibility as with us, but form in fact separate systems, any one of which might be de stroyed without disturbing the sensation of the others. Sleeping moths may be pinned to trees without feeling pain enough to awaken them; and it is related that a dragon-fly, whose long abdomen an entomologist had accidently severed from the rest of the body, suffered so little inconvenience or loss of appetite that it at once greedily devoured two small flies.

A Schoot Girl Runs an Engina

A recent issue of the Wichita (Kan.) Eagle says: All the engineers on this end of the Fort Scott road accompanied the remains of McDaniels to Fort Scott last Saturday. On Sunday it was found necessary to send a train out to the Ninnescah bridge with material, and, no engineers being on hand, Mr. George N. Bauman put his daughter Bessie, a school girl, in charge of the engine, furnished her with a fireman, and she did her work nobly, handling the throt tle and guiding the iron steed as well a the best man on the road. Bessie has frequently run the engine about the yard, but never before made a trip over the road. We don't know of any other road having female engineers. 1.8

Three Georgia weeklies are edited by ladics.

Brown's Little Joke.

"Why, Brown, how short your coat is," said Jones one day to his friend Brown, who wittily replied; "Yes; but it will be long enough before I get another." Some men spend so much for medicines that neither heal nor help them, that new clothes is with them like angels' visits-few and far between. Internal fevers, weakness of the lungs, shortungering 5, 500 yield to the magic influence of that royal remedy, Dr. R. V. Pierce's "Golden Medical Discovery.

Setting Out Cabbage Flants.

Practically the real point to be looked to in setting out cabbage and other plants is to get the soil in a good, moist mellow condition. This can be done by theroughly working the soil until it is reduced to the finest tilth.

Setting out plants during a rain is desirable, inasmuch as the evaporation is moderate. Setting them out before a rain is still better. Cloudy weather, with the atmosphere full of moisture, is equally advantageous. In regard to preserving the roots or stripping them off. it is better to preserve the roots, provided they are not allowed to dry and shrivel up by exposure to the air. If the roots are kept intact, or if the roots which are broken off a short distance from the tips are kept so moist that they will speedily callous over and then throw out fresh roots, the plants will suck up water from the soil and "hardly feel the moving." But if, on

an axe. Tying the turkey firmly to the stake so it could not move from its position he walked in a oblique direction to one side of the tree and struck the blade of his axe, apparently with no design, this end is to employ only thoroughbred | into the ground and then made a mark on it with chalk. Pacing off the 150 yards, he aimed at the chalk mark and fired. The Indian chief ran behind the tree and brought the turkey out dead, the ball, glancing from the axe, having passed clear through its body, with such nicety had Col. Ellicott calculated the angles. The principal chief was so delighted with the feat that he unclasped | York, of honest farming par the magnificent belt be wore and fastened it about Col. Ellicott's waist. The surveyors were given their liberty, and the belt worn by the colonel insured him and his party safety and reverence during the

remainder of the survey.

Preacher Davies and King George.

When president of Princeton college, Samuel Davies visited England for the purpose of obtaining donations for the institution. The king (George II.) had a curiosity to hear a preacher from "the wilds of America." He accordingly attended, and was so much struck with his commanding eloquence, that he expressed his astonishment loud enough to be heard half way over the house, in such terms as these: "He is a wonderful man!" "Why, he beats my bishop!" etc. Davies observing that the king was attracting more attention than himself, paused, and, looking his majesty full in the face, gave him, in an emphatic tone, the following beautiful rebuke: "When the lion roareth, let the beasts of the forest tremble; and when the Lord speaketh, let the kings of the earth keep silent." The king instantly shrank back in his seat, like a schoolboy who had been rapped on the head by his master, and remained quiet during the remainder of the sermon. The next day the monarch sent for him, and gave him fifty presided, observing at the same time to his courtiers: "He is an honest man-an

the roots have time to callous over and a shrewd man, he did not lose the opyear in New York. No other city in the supposed to be trees prepared to build ORLANDO SNELL, 132 Ford st., Lowthrow out new fibers to suck up water portunity which presented itself when world can equal it. There are over 10,log cabins with, but Ben said that they from the soil. In the shade in a cool, "gold was really gold," and speculation 000 saloons in the city that run free had been cut down to get the balls out moist place, the leaves part with their in it meant coining money. This gave lunch counters. Some of them are at a of them, and that it was the proper thing kept him free from them. sap slowly and the roots heal over and him all the capital he wanted, and in great expense each day to supply a free to cut out the big chip with the ball exwhen set out new roots are formed be-1865 he had, together with Mr. Plankinlunch to their customers. The cheap posed in it, and let the tourist go home fore the comparatively dry leaves part saloons have reduced the matter to a ton, a transaction in pork which cleared with both a shingle and a relic. - Cincin for an impurity of the blood, with the thicker and richer sap. which manifests itself in troublesome them about \$800,000. Matters generally science and know almost exactly how nati Enquirer. Boils and Eruptions, and can truly say many ounces they have consumed each had an upward turn, though occasionally that I have never found any medicine so Household Hints. prompt and certain in curstive effect. It day. The New York Mail has gathered A Discreet Youth. he lost a little money, but nothing to To spoil steak, fry it. A discreet young man sends this insome statistics as to the expenses of the has done me great good. speak of. In 1879 he and Mr. Plankin-V-UNNIN Cut warm bread or cake with a warm under cover of darkness: LEANDER J. MCDONALD, Soley St., various saloons and made an average of ton went into their big deal, and by knife. Charlestown, Mass., testifies: One year Have you thought to chain up the dog, dear carrying pork for six months cleared them. The following table will not fall ago I suffered greatly from Boils and Car-To spoil pancakes, bake them on a Mande? about \$4,000,000. Since that time they far short of the exact daily expenses of buncles, and for nearly two months was unable to work. A druggist advised me Have thought to chain up the dog! luke-warm griddle. the free lunches of all the saloons. Th have made large deals, but none of suf-To spoil a breakfast grumble all the If you haven't, I cannot call, dear Maude, to take Ayer's Sarsaparilla, which I pur-chased. After taking two bottles of this Sundays are left out in the estimate : ficient importance to dilate on. There And ruin my Sunday tog. while you are eating.

 15 saloons at \$20 a day......
 \$93,000

 300 saloons at \$12 a day......
 1,126,800

 1,500 saloons at \$5 a day......
 1,347,500

 2,000 saloons at \$12 a day......
 1,347,500

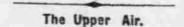
are connected with the firm several -Merchant Traveler To spoil potatoes, let them lie and medicine I was entirely cured, and have brothers, but Philip D. is the chief, and remained well ever since. soak in water after boiling. War departments are interested in a For all diseases originating in impure blood take 3,000 saloons at \$3 a day 1,878,000 6,000 saloons at \$3 a day 5,634,000 his word in the management of the af-A tablespoonful of vinegar in the pot new kind of gunpowder, which is brown Ayer's Sarsaparilla, fairs of the firm is law. The firm has will make tough meat or chicken tender. in color, and when fired produces but 10,815 saloons, annual expense \$11,080,200 packing houses in Chicago, Milwaukee Prepared by Dr. J. C. Ayer & Co., Lowell, Mass. Sold by Druggists. Price \$1; six bottles, \$5. little smoke.

tokens strength for a long continuance of his business career, though he has very recently announced his intention of retiring from his more active engagements.

Philip D. Armour is probably the richest man in Chicago to day, and, although a great deal of the wealth he has amassed he owes to his own enterprise and pluck, he has been fortunate in his associates, and has generally had rich and influential men co-operating with him. Mr. Armour was born in the year 1832, in Onondaga county, New ents. His first enterprise was to as sist his father in the management of the team and in keeping it straight as it plowed a furrow. His rather ambitious spirit soon got tired of this, and some where between the ages of seventeen and

nineteen years he started out for that El Dorado of ambition-California. Ar mour reached the Pacific coast, although the walking was not good, and, things turning out well for the young miner, in three years he had acquired a sufficient competence to return to his native place and purchase a farm, which had been the hight of his amoition before he left. He did return, but the sights he had had of new lands and the reckless spirit of roving he had in the three years acquired, made him unwilling to settle in the quiet old places of the East. Visions of the West fired the young man's ambition and he started for Cincinnati. There he stayed a short time, sufficiently long, however, for him to make the acquaintance of Miss Belle Ogden, who, toward the end of the war, he married, and who during his residence in Chicago has been known for her universal charity and good

works. SURE CURE GESTION. Address J. M. G the other hand, the fibrous roots are al-From Cincinnati Mr. Armour went to fire, and whistling shot and thundering Wives." lowed to shrivel up, they had better be Milwaukee, and there he made the accannon being both landscape and atmos-SN U--24 removed altogether and let the stem throw quaintance of Mr. Plankinton. Between phere. At the Kelly Hospital, only a the two a business connection sprang up, out new ones. In regard to whether it few rods from Thomas's position, one of is better to set out the plants as soon as which resulted so successfully that they those honest, manly, crude Tennesseeans are two of the very rich men of the West. possible, or to let them wilt in the cellar. guineas for the institution over which he left his wood-chopping near by to talk to much will depend on the weather. It At Milwaukee a packing-house was us, and his little children gathered **Boils and Carbuncles**, may well be that a fresh plant, full of started. About the opening of the war around with grape-shot to sell. The sap, by exposure after transplanting, to Chicago presented a good field, and Mr. price of grape-shot seems to be twentyhonest man." our hot sun may shrivel up so rapidly Armour came hither and opened an esthan to try five cents apiece. At several places in that the leaves may be reduced to a tablishment on Archer avenue. Here What Free Lunches Cost. the woods I found trees recently felled powder and the plant destroyed before business prospered, and, as Armour was Millions in free lunches are spent ever. and curious notches cut in them, which]



The greatest difficulty which meets every thoughtful weather student is his inability to obtain any satisfactory account of the condition and motions of the upper portion of the atmosphere. As has been said, "we live at the bottom of the atmospheric ocean, of which the upper layers are practically inaccessible to us." The air is arranged symmetrically about the globe, and it is much denser close to the earth than above it. The actual height to which air extends is not known exactly, but at the level of about forty miles it is no longer dense enough to be capable of refracting the sun's rays. At the height of about seven miles, or 37,000 feet, believed to have been reached by Messrs. Glaisher and Coxwell, in a famous balloon ascent from Wolverhampton, September 5, 1862, the air was found to be so rarified that great difficulty was experienced in breathing. Such a height as seven miles is quite insignificant when compared with the diameter of the earth. In fact, if the earth were represented by a twenty-four inch globe, the height of the atmosphere, even supposing it to be ten miles, would be represented by a shell four-hundredths of an inch thick, about the thickness of a

shilling .- Longman's Magazine.

An Old Battle-Field.

Chickamauga, like Plymouth Rock, is adapted to deceive persons at a distance who have heard General Thomas called the "Rock of Chickamauga." They in wardly conceive him to have been like Roderick Dhu, with his back against a rock, and poetry in his mouth. The rock, however, was nearly level earth in the midst of the woods, with smoke and An Insect Goliath.

The bird-spider of tropical America, according to a French writer, has a body as much as four and one-fourth inches long, or a diameter of seven inches with the legs extended, and is the largest of the several hundred known species of spiders. Its nests resemble those of the large caterpillers of France, and consist of a beautiful white silken tissue, of several thick layers, and strengthened by very strong threads capable of arresting a small bird. In the center are placed the eggs, perhaps 1,500 or 2,000 in number. The creature is very powerful, and is provided with formidable instruments of attack, enabling it to destroy not only young birds and adult humming birds but large lizards and reptiles.

A prohibition paper published in Buffalo, has a standing heading which reads, "White Wheat Whisky Wastes Wealth, Wrecks Womanhood, Wallops



Bear trapping is still a profitable calling in Clarke county, Ga.

\$500 Reward.

The former proprietor of -Dr. Sage's Ca-tarrh Remedy, for years made a standing, public offer in all American newspapers of \$500 reward for a case of catarrh that he could not cure. The present proprietors have renewed this offer. All the druggists sell this Remedy, together with the "Douche," and all other appliances advised to be used in connec-tion with it. No catarrh patient is longer able to sny "I cannot be cured." You get \$500 in case of failure.

Miss Issippi will give her grand spring opening in a very few days.

* * * * Stricture of the urethra in its worst forms, speedily cured by our new and Pamphlet, references improved methods. and terms, two three-cent stamps. World's Dispensary Medical Association, 663 Main Street, Buffalo, N. Y.

The mosquito always makes himself to hum.

A saan's Thanks.

A well known business man of Wilmington, N. C., writes to express his thanks for the benefit which his wife has derived from the use of Mrs. Pinkham's Vegetable Compound. "It is with pleasure," he says, "that I write to express to you my gratitude for the relief and benefit your Vegetable Compound has been to my Wife, who has been troubled with ulceration and a tumor weighing 21-2 lbs., so the doctor said. She has been under the treatment of the doctor for six years. Finally he said he could do nothing more for her, that she would die in 24 hours. Then I commenced using your Compound, as soon as she commenced to take it she commenced getting better, and now she can attend to her domestic affairs as well as she ever could."



Of especial quality for invalids. One case of 1 dozen quart bottles sent prepaid on receipt of F-ur Dollars and Fifty Cents. Remit with order to SAMUEL McCONNELL, Importer, 57 Broad St., New York City

TO A FRIEND who is suffering from

no better advice can be given

Sarsaparilla.

ell, Mass., was terribly afflicted with Carbuncles on the back of his nock. Ayer's Sarsaparilla cured the Carbuncles, and has

F. P. COGGESHALL, Bookseller. Lowell, says: I have been taking Ayer's Sar-