ORCHARD and GARDEN

CORN GROWING SCIENTIFICALLY.

Corn growing is an art that has not yet been learned by all farmers, although some of them have been working at it all their lives.

Professor P. G. Holden, the Iowa expert, says poor seed is the cause of poor stands.

"I have gone into and carefully studied over 5,000 corn field, and have tested over 6,000 samples of seed corn sent me from all over Iowa. The cause of a poor stand of corn is poor seed. In one field at Coon Rapids, Iowa, where the farmer said he had no need to hear me talk corn, I found seventeen hills missing out of 100 hills; thirty-nine hills that had only one stalk, and 20 per cent. of the stalks were barren. He had planted corn of 50 per cent. vitality.

"Years ago I taught a country school in which the pupils tested the seed for every farmer in the district. If I were allowed to give but one order to the farmers of the State, it would be to test six kernels from every ear of seed corn this next spring before they are planted; throw out the bad ears, and throw out the weak ears.

"A good many people think they can tell when corn will grow and when it will not without testing it. Hundreds of young men from all over Iowa come to the college at Ames for the two weeks' short course. One year, I let each member of a large class take forty ears to examine and study for two days, and see if he could tell which would grow and which would not.

"They did not know that I had set a little trap for them by mixing up good ears and bad ears of weak vitality, all of which I had tested in a germinator ten days previously. When their judgment of each ear was compared with my record of its test, it was seen that they had all made mistakes.

"When we were through, I asked if there was any one of them who thought he could pick out corn that was safe to plant without testing it, and not a single hand went up over the audience. You may often tell by examination when a kernel is dead, but you cannot tell when it is weak or low in vitality without the germinating test."

FEED FOR SOW AND PIGS.

A correspondent of the Indiana Farmer says he does not believe in feeding slops to sows with sucking pig. He prefers to make corn the main ration.

We know it is the practice of some breeders to feed sows very liberally on corn, just as soon as the clover pastures are ready. The theory is that there is enough green stuff to counterbalance any evil that might come from feeding corn. This is a matter which must be left largely to the judgment of the breeder. Some sows which have been accustomed to dry grain all winter do not take readily to slops, and are apt to get out of condition. In cases of this kind it is well to feed slops sparingly and make the change gradually. The same correspondent says he wants his pigs to eat dry corn just as quickly as possible, and he cuts out most of the slops while the pigs are sucking.

The writer believes in feeding good slops. Use shorts and a little oil meal will be good. Make fresh slops every day, and under no circumstances allow the barrels to become sour. Really the finest bunch of pigs the writer ever raised were handled in this way: The sows farrowed during March and April. During the first ten days the sows and pigs were confined in individual pens, with plenty of sunshine. The sows were fed two ears of corn each, twice a day, and half a bushel of rich slops. After ten days sows and pigs were turned out in blue grass and clover pasture, being housed every night. Runs were made for the pigs and soaked corn and barley were fed. When the pigs were five or six weeks old short slops were fed, the quantity increased gradually until the pigs were weaned. It is no trick at all to make 300-pound hogs at ten months, with that feed.

SPARROW HAWK OUR FRIEND.

While the name hawk too often brings to mind only slaughtered poultry, careful investigation shows that most of the hawks are decidedly friends of the farmer. Though the long-tailed hawks, Cooper's, the Sharpskinned and the Goshawk aptly styled the "brigands of the family," are not to be favored, the short-tailed species, even if some of them do invade the poultry yard occasionally, destroy so many noxious insects and rodents as to many times amend for the few misdemeanors.

The smallest, handsomest and one of the most useful is the sparrow hawk which, besides killing many insects and furry pests, makes havoc with the bully among little birds, the English sparrow. Whether the latter is beneficial or injurious, its quarrelsome nature seems to demand that some check be given to protect our native youngsters. And the sparrowhawk does this with great efficiency.

In summer it poises over a meadow or pasture, sustaining itself by rapid vibrations of the wings and tail, watching for a stray grasshopper or cricket which it is not slow to spy.

In localities infested with locusts, it also does incalcuable aid. In winter it may come to the barn or straw stack; but it is mice, not chickens, which it seeks. The latter, unless very small, are never harmed

It is a handsome, innocent, bird, well deserving protection, despite its sharp claws and hooked beak, and no one who has had a chance to admire its rich blending of slate, white and rufous coloring, barred and polkadotted with black, will wish harm to this efficient mouser.—Richmond Times-Democrat.

THE HORSE TO BREED.

The breeder ought to have a certain and distinct type of horse in mind before starting to breed, and his constant aim should be to produce only the very best of its kind. Unless his aim and ambition be high the probability is that he will never produce anything valuable. He should select the breed or breeds that he thinks are best adapted to his conditions and circumstances, and that when raised and marketed will net him the most money. Assuming that he decides to raise draft horses—and they are much the safest for the average farmer—he ought to aim at producing horses that will weigh at maturity not less than 1,500 or 1,700 pounds. But size, of course, is not everything. The horse must be proportionately made; he must be of the best quality and stamina, sound, have good legs and feet, good walking and trotting action.—Weekly Witness.

SMALL TREES BEST.

Small trees have larger roots in proportion than large trees and they cost less, as expressing small trees is less than freighting larger ones and is also much more speedy. Less labor handling, digging holes, etc., is required and they are also less exposed to high winds which loosen roots and kill many transplanted trees. Planters can form heads and train them to their own liking and with good care, in about five years they will overtake the common large size trees and will be just to your liking, says the Agricultural Epitomist. Fruit trees when transplanted while small will yield more and better fruit than those that were large when transplanted.

CONFINEMENT AND LIBERTY.

Confinement is not injurious to poultry provided the hens are kept at work. If at liberty and well fed, the fowls will not roam and search for food but cluster around the feeding place. When in confinement they will exercise all the privileges of hens at liberty if the farmer will not feed them so as to pander to their appetites. There is no reason why fowls should not be kept in good laying condition enclosed with fences, provided their wants are satisfied. The great bane of the poultry industry is that of over-feeding. Food will not produce eggs unless all other conditions are favorable, and these conditions must be made, which can be done just as well when fowls are in confinement as when they have a run over the fields. It is simply a matter of exercise.—Weekly Witness.

TO DOCK LAMBS.

A good way to dock lambs is to tie a cord tightly around the tail and then clip off with a pair of sharp pruning shears. Leave the tail about an inch long. Cover the end of the wound with a little carbolated vaseline and remove the cord at night.

PLANT WILD FLOWERS.

The attractiveness of the house lawn can readily be enhanced by the planting of wild woods flowers and plants in the shady and protected corners. Many of them are quite as beautiful as the highly domesticated and cultivated ones are. One of the most satisfactory of the larger wild growths is the wild crab apple tree. A more beautiful and fragrant acquisition to the lawn can not be had when this tree is in full bloom.

Cannon Balls of Stone.

On either side of the entrance to the Naval Asylum on Gray's Ferry road, is an immense stone sphere, measuring about twenty-five inches in diameter. There is a legend that these were used or intended for use in a Turkish mortar, "the largest piece of ordnance in the world."

These balls were given to the institution soon after its founding by Commodore J. D. Elliott, who obtained them during a cruise on the frigate Constitution in European waters. An inscription on one of the balls relates that they were obtained on the Asiatic side of the Dardanelles, and it is within the realms of possibility that the Turks may have intended them to serve as shot in a mortar. It is also more than probable that with sufficient powder to project them the stones would have been badly shattered.

Commodore Elliott presented them in 1838, and ever since then they have ornamented the entrance and mystified curious visitors. — Philadelphia Public Ledger.

Queer Wicks.

Sam, a negro servant of a Harrisburg family, is very ambitious to appear well informed on all subjects. His master had installed electric lights throughout the house and was explaining the workings of the fluid to Sam as follows:

"You see, the whole thing comes from the dynamo and goes into the wires and then into the lights. Now, do you understand?"

"Yes, sah," said Sam. "I understand all 'bout dem dynamos and other things, but what I wants to know is how do the kerosene squirt throo dem wicks?"—Philadelphia Public Ledger.

Fault of System, Not of Men

Railroad Accidents Caused by Operation Economy.

By Grand Master P. H. Morrissey of the Brotherhood of Railroad Trainmen.

WHENEVER the subject of the causes of railway wrecks is before the public a certain class of railway writers never fail to speak of the influence of organizations of labor among railway men as being subversive of good discipline, and consequently a contributing cause to the many disasters that have shocked the public in the past few years. There is not a railroad labor organization that can justly be charged with hampering the enforcement of safe operation by opposing discipline. It is unreasonable to believe an organization would object to the adoption of methods that would make the employment of men less hazardous, while death is constantly working overtime among them. There is too much business for the railroads; too much hurry in conducting trains, and too few employees to insure the proper degree of safety to employee and traveler.

The State railways of Germany employ more than three times the number of men per mile that we do, and none can say that this does not contribute to safety. Every advance in wages here is met by counter economies in operation, such as taking off men, etc. The American railway managers as a class are capable and practical men. It is not their fault that things are as they are. It is the fault of the system. If they do not get the results in operation they are likely to be side-tracked. What, in my opinion, the American railway systems need to insure greater safety, is more men to man and inspect the trains, to guard the switches and semaphores and to patrol the tracks.

American Investments Are the Safest in the World

By H. Allaway.

OUR security market is part and parcel of the world's financial system, and must to more or less degree be affected by world conditions. Lord Rothschild very justly points out that disturbing movement is afoot: Russia is in the throes of actual revolution—France confronts religious and economic crises—England has to deal with a vigorous socialistic uprising. Lord Rothschild might have gone further—might have referred to the unsettled condition in the Balkan States, the disturbances in Central America, the unrest in the Far East. All these are influences more or less potential in the financial situation. But making due allowance for all uncertainties, how bright is the contrast between the United States and the rest of the civilized world. Here we live under the shield of a Constitution which has stood the test of time and proved itself sound. Here, when socialistic or other attack is made upon the rights of men or the rights of property, we have courts of dignity and proven fidelity which guard the citizen or the corporation against the danger of popular emotion. No other country is so protected by fundamental law. The separate and independent existence of our executive, legislative and judicial departments of government guarantees the administration of substantial justice. American investments are the safest in the world. They can be attacked or harassed under the impulse of ephemeral crazes, but they are at all times under the ægis of the Constitution and the law; and this must attract not only home but foreign investment in greater and greater proportion, for American securities beyond all question possess more inherent integrity and are less subject to deterioration than any others in the world. Consideration of this character may be flouted by Wall street speculators, but will not be ignored by investors.

What Schools Can Do For Peace

By State Education Commissioner Draper of New York.

IT would seem as though, with a little governmental favor, official records, and our free communication, there might be a somewhat systematic and potential canvass of the teachers of the world in the interest of universal good-will, and of the common regard or definable moral standards which ought to be inviolable in both individual and international conduct. The teachers of the world might, through an organized movement, become a very great force in doing all this. The universities may well be counted upon to give point, form and expression to the better sentiment of all countries in this behalf. The work of the colleges, and in some measure that of the secondary schools, may well anticipate that of the professional schools and the universities in this, as in other matters. The phases of it which may properly form a part in the work of the elementary schools are not obvious. If we teach the elements of knowledge and exemplify the elements of good morals in the primary schools, we shall not be censured if we omit constitutional law, political history and international arbitration. It has been said that the text-books in the schools emphasize the triumphs of strife rather than the struggles and accomplishments of peace. It does not seem so to me. The literature used by the schools is the best in the world, infinitely more choice than ever before. It is not the literature of strife so much as of peace, work and culture.

How Railroads May Still Grant Rebates

By Justice Gaynor, of New York.

MY own view is that it is only necessary for the government to appoint the general freight agent of every railroad, for he could stop all rate favoritism at once. It would not be for his office to fix the schedule of rates, but only to see that every one paid the schedule rate—no more than no less. The actual payment of rebates back to shippers is now seldom done, but favoritism is done in many other ways. One way is to give favoritism in freight rates by billing goods at one-half their weight. Another way is by means of the private switches or tracks which connect many business places with the railroads. One of these little roads a quarter of a mile long may get twenty-five or even fifty per cent. of the freight money charged by the railroad it connects and which carries the freight hundreds of thousands of miles; private freight cars leased to the railroad at exorbitant rates are another means, and still another is the giving of large commissions to a go-between for getting the freight. This favoritism in freight rates and passenger rates is also a wrong to the railroad stockholders. There are roads now paying three or four per cent. dividends which would be paying ne ten per cent. if the favoritism in freight rates were stopped.

Clear Thinking Essential To High Morality

By Dr James M. Taylor, President of Vassar College.

IT is essential to see clearly, to think straight and to speak accurately. No man can be educated without this. We must not only see facts and know facts, but use facts. Education must give us breadth of view and force us from provinciality. It should develop a taste for art and literature, but, above all things, it must form the will and give the ability and impulse to use opportunities. The growing lawlessness in America—and by this I mean not merely crime, but the unloosing of the bonds and anarchic conceptions of social life—is due to the enormous expansion, the sudden increase of our wealth, and to immigration. Moreover, we owe a large part of it to clever lawyers, who make it possible to set aside justice and avoid the laws. America does not need physical development. The great need of America is the preaching of moral conviction and intensity, so that theft shall be known as lies. And to help in accomplishing this the teacher must have the missionary spirit—the spirit which gives and asks no return but the joy of seeing fruitage from its work.

Working women in the fruit fields of California will henceforward work only eight hours a day instead of working from sunrise to sunset, as they have hitherto done.

Mme. Emma Calve, as proprietress of the Chateau de Cabriers in the Department of Aveyron, France, has received a gold medal at the Rodez agricultural show for model farming.

ANCESTRAL MEMORY.

A THEORY TO EXPLAIN SOME FREAKS OF THE MIND.

These Flashes of Reminiscence Are the Sudden Awakening, the Calling Into Action of Something We Have In Our Blood.

There are few people who have not at times been startled by some vivid reminiscence which has suddenly illumined their minds when visiting some entirely new locality or while viewing some scene which they know they have never seen before. A key has been, somehow, turned; a bolt back somewhere within the inner temple of their consciousness; a secret flashed in upon them, a thrill of insight has possessed them, and they feel for the moment a new light has broken over them. Words of amazed recognition rush to their lips, as a full current of new thought is switched on—and they feel they want to say so much all at once that the effort generally ends in their saying little that is coherent. For an all too brief space, the recollection is there—a concept in the mind's eye, clear and strong, then it fades away, while they desperately hang on to the skirts of the vision. When it is entirely gone they struggle to recall it as one would recast a dream. No use—it is gone; and the more serious ones realize that there are thoughts without words, as well as songs without words; slumbering ideas; dormant pictures; genius held in bondage, which require but the magic word to call them into active operation.

At other times the vision lingers sufficiently to enable us to get hold of something fairly definite; we are on firm ground to say, "I have seen all this before. I recognize that hill and those ruins; beyond that hill there is a village; the end of that lane will bring us to the main road," and we pass on to give further details of what the picture brings back to us.

Have you ever felt on seeing a place for the first time that you have been there before? This is a favorite question of mine, and in quite 30 per cent of the answers I get something which bears directly on the theory of a racial memory. A few, from fear of ridicule or misunderstanding, prefer to pass the question, and it is not always easy to break through the English reserve, but I could give some very interesting answers.

And this strange thing—this haunting as of a pre-existence—is not exceptional; it is not new; it is not limited to poets or dreamers or to those whose minds are supersensitive. From the very dawn of history it has haunted the minds of men, given food for thought and shaped itself in all kinds of speculation.

In common with other forms of mysticism it has its cradle in the East, where it had its philosophers and poets. In the subtle metaphysics of the Brahmins and in the noble morality which has its home under the shadow of Buddha, it stands out precise and clear as an ultimate fact which requires a theory, and it would appear a religion, for its due expression. It was grafted into the theology of Egypt; it laid hold of the mind of Plato, who discusses it under the term anamnesis—reminiscence of former existence or of things once known and seen. Among the Jews the Pharisees had explained it by a doctrine that the virtuous have power to revive and live again (Josephus, Antiq., XVIII). In the New Testament John the Baptist is regarded by some as the reincarnation of Elijah, and the disciples of the Christ on one occasion asked whether a certain man born blind was suffering for the sin of his parents or for some sin of his own. Under the forms of transmigration, metempsychosis, reincarnation, such phenomena were discussed among the early Church Fathers, some of whom decidedly believed that pre-existence was the explanation of such phenomena as I have mentioned. Schopenhauer, Lessing, Hegel, Leibnitz, Herder and Fichte have dealt with it.

I ask, is there not such a thing as ancestral memory? That a child should present certain features of his father and mother, and reproduce certain well known gestures and mannerisms of his grandfather, is looked upon as something very ordinary. Is it not possible that the child may inherit something of his ancestor's memory? That these flashes of reminiscence are the sudden awakening, the calling into action of something we have in our blood; the disks, the records of an ancestor's past life, which require only the essential adjustment and conditions to give up their secrets? If so, then we have in ancestral memory a natural answer to many of life's puzzles, without seeking the aid of Eastern theology.

Have we not got here, too, a theory which explains a large class of apparitions, the evidence for which it is easier to ignore than to explain, and so we prefer to shrug our shoulders and pass them by? Take the common form of ghost story. A sees the ghost of one B, whom he subsequently identifies, say from the family gallery of portraits, to be an ancestor. Some member of his house, I should say back in the centuries, did actually witness such a scene, did see B come in as A saw, only the original witness saw B in the flesh at such a moment, under such conditions that a great impression was made upon him, and this impression was handed on to a later scion of his house, to be preserved in this racial consciousness.

The theory of an ancestral memory, I maintain, is a reasonable proposition, and as a working hypothesis will be found useful in the solution of many puzzles that confront us daily. If the memory cells of our ancestors were the collected photographed impressions of their experiences, and these cells in the process of photographing were subjected to some subtle change in physical structure, then that these negatives of impressions should be handed on to posterity is not difficult to understand and accept. That these negatives may be broken, blurred, indistinct, obliterated, is to be expected, but at the same time some of them may be passed on intact, possessing the potentialities to which I have called attention.—Forbes Phillips, in The Nineteenth Century.

MATRIMONY AND FARMING.

How One Ingenious Kansas Agriculturist Managed to Combine the Two.

Kansas is a State of novelties in many lines and her farmers are not the least behind the rest of the population in invention and initiative. A Kansas paper tells admiringly of one of the Sunflower State's agriculturalists who combined the business of contracting advantageous marriages for his four daughters and at the same time enhancing the value of the broad acres which they grace. That he stumbled upon this remarkable system quite by accident does not detract from its worth in the least, and his experience is recounted that it may convey a profitable hint to other fathers of girls who grace farms and who are not averse to contracting advantageous matrimonial alliances.

It seems that the farmer, whose name was Daniel Kindred, had struggled manfully for many years to rear his daughters in intelligence and thrift, but when they had reached the age which suggests flight from the paternal roof they still lingered—wistfully, it is true, but persistently. One day Kinkaid—whose very name seemed a hoodoo—sent an advertisement to a newspaper, stating that he wanted farm hands, and as an additional inducement specified that every man that applied would have a chance to woo a daughter, provided—and here was the critical clause—every claimant to a daughter should do somethink of a beneficial nature to improve the farm.

The first man who applied at the Kindred farm for work and a daughter was from the East, and claimed to be a graduate from an agricultural college. He was retained, and after he had looked upon the youngest daughter and found her exceeding fair he began to speculate on the farm improvement idea. Before he had been on the farm a week he had installed an irrigation ditch and stone-inclosed fish pond, which he stocked with bass and pickerel. Kindred looked upon this achievement and saw that it was good. The man got the daughter.

The second applicant piped water from an artesian well into the house and put in a porcelain bathtub. In addition to this he cured a disease in some of the Kindred cattle and won a prize. The third was dreamy-eyed, but enthusiastic. After choosing one of the remaining daughters he started out zealously to earn her. First he invented some sort of lightning rod to be fixed to each domestic animal, with spines along the back and head and the ground connection beside the hoofs. But Kindred was not impressed and said it wouldn't do. The inventor tried again. This time he was successful. He built a water wheel at the artesian well, rigged up an electric generator, which runs the churn, sewing and washing machine, lights the house and barns and furnishes power for saw mills, etc. He was rewarded by Kindred in the promised way. There is only one daughter remaining, which is regretted exceedingly by Kindred, who had formerly considered girls a burden. But he is hanging on to his one daughter for something really extraordinary in the way of inventions. It will be an exceedingly difficult thing to win this last rose. But if some young man is really crafty he will first find some way to secure a wife for the old man, who is a widower. This would be such an improvement to the latter's wife as would merit the recognition of ever so exacting a father. Then the happy family would be complete.—New York Tribune.

Worshippers Carry Fires.

While seeing many people leaving the cathedral I entered to look around the interior of the fine chancel. Inside I saw numbers of men carrying huge wicker baskets filled with triangular earthenware dishes in each of which still smouldered some glowing embers in a bed of white ash. These they carried into the cloisters and emptied solemnly into great metal bins.

On re-entering the building the secret stood revealed. Owing to the extreme cold each member of the congregation hires for a droppeltjer, or the sum of 2d, an earthen dish with a block of glowing peat to put under the little wooden perforated footstools with which each chair is provided.—Tit-Bits.

Squirrel Ran Down Tree and Bit Him.

Eugene Oliver, a carrier boy, is recovering from a severe wound received in a peculiar manner. He was standing beside one of the trees in the park a few days since when a squirrel ran down and took hold of the top of his right ear.

The boy ran away screaming for help, but the little animal held on. In fact, took hold tighter, until it had bitten a hole clear through and half across the top of the boy's ear.—Iola correspondence Topeka Capital.