FARMER AND PLANTER.

WEEDS AND THEIR SEEDS.

A Factor in Farm Work that Consumes an Enormous Amount of Time.

If we could know how much of our time each year is spent in fighting weeds, the record would astonish us. Weeds in the corn, weeds in the potatoes, weeds in the grain and weeds in the grass, weeds everywhere. Where they all come from and just why they thrive, as they do, furnish food for thought.

I have lately been having a costly experience with a weed which we call here in the east the wireweed. I think it is a species of the goldenrod. The leaves and blossoms bear a remarkable resemblance to that plant. I am unable to give the origin of the plant on my farm, but it came last year in wonderful areas. Those who know anything about its tenacity, need not be told what roots it has, running far out in every direction and sending out its myriad of fibrous rootlets here and there until it runs all other vegetation out. Last fall I plowed a piece which was thickly grown up to this weed and thought perhaps by plowing again in the spring I might be able to conquer it; but when spring came and I turned the land over again there was the wireweed as fresh as ever after the first warm rain. Then the question arose what to do next, and I concluded that nothing would avail like thorough cultivation. I planted my piece to potatoes, as I had intended, and sat down to await results. I had not long to wait, for some time before the potatoes were out of the ground the wireweed had begun to send up its head all over the field. I put in a spike tooth harrow and did what I could in that way to subdue the weed, but it speedily presented itself as fresh as before. As soon as I could see the rows I started the cultivator and had the satisfaction of knowing that I had rooted out some of the stalks. This gave me courage and I kept at it. Four times I went over the piece, part of the time one way and part the other. I was beginning to get the stuff cornered. Still many stalks remained in the potato hills and after hilling them up I went through them with a hoe and every spear of wirewood I could find was carefully pulled by hand. To-day the piece is as clean as can be imagined, but oh! the hours of backache! Where do they come from? Well I think we buy a vast deal of foul stuff in our grass seed, for, be as careful as we may, some will get into the grass seed. I have always taken pains to buy the very best and cleanest seed I could find, and yet, no doubt I have been deceived. Again, one careless farmer may seed to foul weeds a whole township, for the weed seeds fly on the wings of the wind far and near. If allowed to ripen these seeds are so light that they float across the snow for miles; thus wild carrot and similar plants, migrate. A few moments with a scythe just before the plants begin to ripen would save untold trouble to those who really try to keep their farms free from weeds.

Many of our weeds come from the seedsmen, who send them out in little packages for the flower garden. Of this class may be named the so-called paintbrush. There ought to be a stringent law against spreading this seed in such a way. It is a most pestiferous weed running everything else out wherever it gets a foothold. It spreads from the root and from the seed, which like that of wild carrot, is as light as a feather and is carried by the wind for miles and miles. In some parts of the east this plant is getting a dangerous foothold. —E. L. Vincent, in Agricultural Epitomist.

EDUCATION A NECESSITY.

The Farmer, in Order to Achieve Success, Must be Liberally Educated.

There is no profession or calling known among men, in which a thorough education is more necessary to success than farming. The farmer has to deal with all the natural sciences, and whether ignorant or informed, must abide the results. If he knows nothing of botany, he is handicapped from the start. If he knows nothing about agricultural chemistry, or the laws of plant growth except what is necessary to distinguish between a very poor and a very rich soil, or to know what plants grow best in summer and what in winter, he is at a serious disadvantage when competing with the best educated farmers. If ignorant of zoology, entomology, mycology or ornithology, he is at a disadvantage wherever his business touches these sciences, and suffers loss proportioned to his lack of information. Of course, it is not expected that farmers generally shall be experts in all these branches of scientific knowledge; but if they are grounded in the elementary principles, they will know where to go for what they want. A wise philosopher has said that the next best thing to the possession of knowledge is to know where to go to obtain it. Without education in the sciences upon which success depends, farmers can not hope to hold their own with the commercial and manufacturing interests, with the best training the world of commerce can bestow. These branches do not come in contact with any science but that of numismatics, and that is acquired by simple contact, or as is often the case, by inheritance. Every operation of the farm, from turning the furrow to protecting harvesting and feeding out the crop, is based on nature's unrepealable laws, and a knowledge of these laws is science. Such knowledge is never inherited or acquired by accident or incident. It must be secured by hard study and persistent thought. There is no calling, with the exception of that of teaching, that requires for best results such broad learning as agriculture. The time is rapidly approaching when farmers must be educated in every branch of knowledge which effects their calling early in life to be effectual. It should or they must take a position with the rear guard. This training must begin at home, continue in the public schools, be carried on through the agricultural colleges, and continue through life. When a farmer becomes too old to learn any more, he should sell his farm, move to town and do the best he can.—Texas Farm and Ranch.

IMPORTANT FACTOR IN HOGS.

An Important Factor in Hog Raising is to Keep the Animals Growing.

It is possible to keep the hog growing and thrifty in July and August, as well as in April and May, if the conditions are made favorable. Hogs may be grown successfully by soiling, but this plan requires more attention than many farmers want to give. So the next best way is to provide a pasture. Grass and clover are loosening to the system, and are just suited to pigs in dry, hot weather. This succulent food is also rich in the muscle and bone forming materials, and on a pasture the pigs get exercise which is very necessary for their proper development. But wether the pigs are on pasture or not, they never will be thrifty in summer unless plenty of pure, fresh water is given them. This is of great importance, yet I believe it is a matter that is neglected by very many farmers. Of course, slop is a partial substitute, but will not entirely answer the purpose of drinking water. To get an idea of about how much they will drink, measure the water out to them in a pail some dry, hot day in August. You may be surprised at the quantity they will consume.

Another thing in the case of hogs in warm weather, and one which is too often overlooked, is shade. In going through the country how often we see a half dozen of more hogs confined in a small lot entirely destitute of shade. Again, it is a common practice among some farmers to pen their hogs up in a small yard adjoining the hog house, where they are kept throughout the summer in mud and filth. The building answers very well for protection from sun and storm, but a grove or wood lot would be much better. You can smell some hog pens farther than you can see them, and to confine these animals in such places at any time of the year is very wrong, and especially in hot weather. There is no cleaner animal on the farm than the hog, and he will keep the pen and yard in a sanitary condition if given a chance to do so. The hog is a great economizer of food, and it surely will pay farmers to study closely everything relating to feeding pigs, improving their pens and rations, and to look after their general dealth and comfort, for the hog crop is an important one with the average farmer, and it is these little details that we must look after carefully, if we expect to grow hogs at a good profit.—V. M. C., in Epitomist.

Good Suggestions.

To the drought-stricken farmer, who may just at this time be disheartened with the prospect of a winter before him with a very meager supply of feed for even less than the usual supply of live stock on his farm, the suggestions offered in a bulletin issued by the Missouri agricultural experiment station should be of benefit. This bulletin advises the sowing at once of a few acres of cow peas, which, if cut for hay, will excel in feeding value an equal quantity of clover hay, at the same time improving the land for a crop of wheat this fall. Sorghum of the Early Amber variety is also recommended, and Kaffir corn, millet and Brown Dourha, all of which may be utilized as hay crops by late sowing. There is a very urgent injunction attached to these suggestions that the seed be put in immediately following these good rains, that it may get started at once. It is already rather late for the best results, unless frosts should be delayed later than usual. These suggestions seem very wise, and the farmer who gives them a test will lose nothing, even in failure, as their value as a means of fertilization of the soil is well known.—Farmers' Home Journal.

HERE AND THERE.

—It takes the right kind of feed to produce eggs, just as it does to produce bone, meat or muscle.

—It is a very poor farmer who can't make $500 a year on 100 acres of good farming land. That is five dollars per acre, and represents ten per cent. on land at $50 per acre. There is plenty of that sort of land all over the southwest.

—The president of the Chicago board of trade estimates this year's corn crop at 1,600,000,000 bushels. Last year's crop was 2,100,000,000. This shortage is about 25 per cent. Over large sections the crop will be as much as 50 per cent. short.

—The necessity of comfort for any animal from which increases is expected, is rarely appreciated at its full value. This is especially true of fattening hogs. The value of comfort can be approximately estimated in terms of corn, oats or other feed.

—Wheat straw should be baled as soon as threshing is over. This straw has a market value, and besides, it forms a wholesome roughness for cattle when pasturage fails. Cut straw wet and mixed with bran, or corn chops, will be relished by cattle and horses.

—A big cotton crop means a scarcity of feed crops, poor cattle and horses, a heavy outlay for bacon and other things that ought to be made at home, short rations of butter and milk, and many additional things that must be bought; and, worst of all, a low price for cotton.

—The Sea Island cotton crop of 1899-1900 was calculated by the Unitde States department of agriculture as one of the largest ever grown, amounting to 98,338 bales. Large quantities are now used for mercerized yarns. This cotton is also very much in demand for making high-class goods.

—Green pasturage is the chief factor in profitable pork production. Corn to put a finish on is equally necessary. Oats, or any winter grain, alfalfa, cowpeas, sorghum and Bermuda and Rescue grass are sufficient for the purposes of growth, and in the southwest can be had all the year round.

SCIENCE OF EATING.

It Is Being Studied by the Department of Agriculture.

Selection of Foods with Reference to Human Requirements—Slow Cooking Is the Best of All Cooking.

[Special Washington Letter.]

TEMPERANCE lectures are being prepared in the department of agriculture; lectures which teach temperance in all things, such as eating, drinking, tilling, planting, hoeing, mowing, reaping. Every branch and division of the great department of agriculture is working on common sense practical lines.

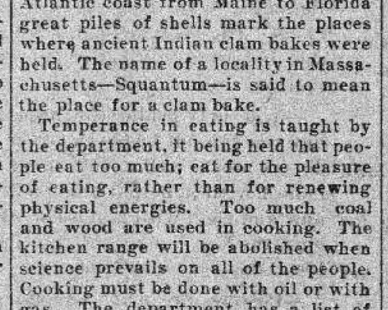
In one of the divisions to-day it was was ascertained that the people of this country do not know how to choose the foods they eat or how to cook them afterward. This burden of ignorance falls most heavily upon the wage-workers who, taking an average among them, use one-half of their money to buy food, this estimate not including the cost of cooking. The poor man wastes in purchasing provender; his wife wastes in preparing it for the table. When an intelligent person buys a coat he has a pretty fair idea as to whether it fits him and how it will wear. But when he invests in meat and potatoes he has little information as to how much nutriment they contain or whether it is of a kind suited to his bodily requirements.

These men of science say that when a man buys coal or wood for the winter he knows exactly how many tons or cords he will need; but that the average man has no idea of the amount or kind of fuel he needs for his body—for food is fuel to keep the human physical machinery going.

It is of interest and value to know that the average human being, leading a moderately active life, requires 59 ounces of food per diem. He consumes 37 ounces of water and absorbs in breathing 30 ounces of oxygen from the air. His total bodily income, therefore, is about eight pounds daily. What he needs for his support each day is four and one-fifth ounces of flesh-forming albumen; two ounces of fat—enough to make a fair-sized candle—17½ ounces of sugar and starch; four-fifths of an ounce of mineral matters, such as common salt, potassium, etc.; two quarts of water, and 150 gallons of oxygen. So much water is contained in solid foods that we may be said to eat as much water as we drink. In order to supply the substances above mentioned a man should eat daily 20 ounces of bread, eight ounces of beefsteak, 30 ounces of potatoes and one ounce of butter, with one quart of water or the equivalent. A human being is composed mostly of water. The body of a man weighing 154 pounds contains 96 pounds or 46 quarts of water. To complete his make-up must be added 13 pounds of albumen, ten pounds of gelatine, 23 pounds of fat, 8½ pounds of phosphate of lime, one pound of carbonate of lime, three ounces of sugar and starch, seven ounces of fluoride of calcium, six ounces of phosphate of magnesia, a trifle of chloride of potassium and a little ordinary table salt.

The students of food do not expect all men and women to know all of these facts by their own experience, but they expect ultimately to be able to teach people the science and art of eating so that life may be greatly prolonged. They have gone so far as to invent and construct an apparatus for measuring the physical income and outgo of human beings.

It is a metal box, inside of which a man is placed. He stays there for



NEW ENGLAND CLAM BAKE.

several days, during which he is fed on carefully weighed quantities of certain foods. A current of air is drawn through the box by a machine pump. Not only is all the waste from the man's body analyzed and weighed, but the air is subjected to analysis before it goes in and after it comes out of the box. By the latter analysis it is discovered just what elements and how much of them have been given off from the lungs of the man in breathing. Everything that goes into the body of the subject being known, as well as the outgo, it is easily ascertained what has been used to build up the tissues, to make blood, etc. The man in the box, which has glass windows, may spend his time in idleness or he may be occupied actively for several hours of the day. In this way comparisons are obtained as to food consumed and results accomplished under varying conditions.

What they learn about the man in the box they will apply to other men. So it will not be necessary for all of us to spend even a small part of our time in boxes. By these practical experiments they dispose of many queer popular notions about food. It is generally imagined and frequently said that an egg contains as much nutriment as a pound of lean beefsteak. As a matter of fact, it has 40 per cent. less of nutriment, pound for pound. Beef sirloin is only 75 per cent. as nutritious as beans and peas. Chicken and turkey are ahead of beans and peas in this respect, being the most nutritious food known. Shad and mackerel are as nutritious as sirloin steak. Lean beef is nearly three-fourths water. Prof. Atwater has invented a new contrivance for measuring the energy produced by various foods. The food selected for trial—a definite quantity of it—is burned in a vessel surrounded by water. A thermometer of extraordinary delicacy registers the rise in the temperature of the water, the quantity of which is known. Then an equal amount of the same food is burned in the human body. Of course, all food digested undergoes a process of chemical combustion.

Sir Henry Thompson, a celebrated English physician, is quoted as having said: "More mischief in the form of disease and shortened life is caused by bad habits of preparing and eating food than by bad habits in the use of

THE GOSPEL OF MATRIMONY.

alcohol." Although people might regard that as an extreme statement—in fact, an exaggeration—the men of science say that it is only an ascertained truth which ought to be widely disseminated. The same authority asserts that fully one-half of the prevalent dyspepsia is due to semi-starvation, because the victims cannot digest badly prepared food. He believes that any shrewd saloon keeper might obtain considerable profit by selling properly made strong beef soup from the heads, palates and well-cleaned hoofs of beef cattle, or lentil broth from lentils. It would cost him less than his whisky and beer cost, and if put on tap alongside of either would sell freely in place of the liquor, because more than half of the craving for stimulants is due to want of well cooked food. The great secret of good cooking is slow cooking. The New England clam bake furnishes an example. It represents a method adopted by the Indians for centuries before Columbus landed, when tribes from the interior visited the coast for periodical festivals. The whites have simply imitated the process.

At a modern clam bake a platform is made of flat stones gathered on the shore, and these are heated with wood fire. After awhile the ashes are swept away and a layer of wet seaweed or rockweed put on; on this a layer of clams; then another layer of seaweed; then sweet corn in the milk; then more seaweed; then some fish and lobsters; more seaweed; more clams; finally, in tin pans, Indian puddings, made of corn meal and molasses; then a last covering of seaweed, and the whole covered over with sail cloth. The heated stones do the cooking. Along the Atlantic coast from Maine to Florida great piles of shells mark the places where ancient Indian clam bakes were held. The name of a locality in Massachusetts—Squantum—is said to mean the place for a clam bake.

Temperance in eating is taught by the department, it being held that people eat too much; eat for the pleasure of eating, rather than for renewing physical energies. Too much coal and wood are used in cooking. The kitchen range will be abolished when science prevails on all of the people. Cooking must be done with oil or with gas. The department has a list of dietaries, showing how people can live on from 14 to 28 cents each per day. If one spends 28 cents per day, that will include all luxuries. Just think how cheap banquets will become when science takes charge of the kitchen, and when science goes to market with a basket on its arm and a little bit of a pocketbook in its hand.

The parish priest in New York who is preaching matrimony and urging his young people to marry might help along his gospel by adding science to it, as applied by the department of agriculture. The young wives will hear no more about "the pies that mother used to make;" and, with wages saved by science, we will hear no more of the conundrum: "Is marriage a failure?" The future Paul and Virginia will buy all food scientifically and cheaply, and they will have plenty of time to let their dinners simmer. You and I, and some of our children, may not live to see this branch of the millenium, but it is coming just as fast as the men of science can bring it to us.

SMITH D. FRY.

Compound Profits.

Skinner—I just sold the last of those suburban houses I put up.

Weaver—What are you going to do with all the money?

Skinner—Invest it in quinine and sell it to the purchasers of the houses as soon as they have caught the malaria.—Leslie's Weekly.

Proposed Compromise.

Tramp—Lady, could yer loan a poor pilgrim yer husband's razor?

Lady—And what will you do in return? Cut some wood?

Tramp—Not exactly that, mum; but I will compromise an' give yer me shorn whiskers to stuff a pincushion.—Philadelphia Record.

One Way to Do It.

"I'll get even with the proprietors of that hotel in some way," he announced.

"You can do it easily, too," answered his friend.

"How?" he asked.

"Commit suicide in his hotel. That always annoys them."—Chicago Post.

True Musical Instinct.

Reilly—Couplings is a fireman with a true musical instinct.

McCarthy—I didn't know he had any talent in that line.

Reilly—Well, he has. When the music store burned yesterday Couplings played on six pianos all at once. —Leslie's Weekly.

A COURTSHIP IN HAVANA.

Fan Language of the Senorita and Pedestrianism of the Suitor.

When the sun goes down life begins for the Havanese. Then they come forth to enjoy the cooler air of the roofs and balconies. For the stranger it is a pleasure to watch the constant stream of carriages, passing and repassing on San Lazaro street, and to peer at his neighbors on the balconies or roofs or standing at their windows, says the New York Sun.

Here, for instance, is a pretty senorita leaning forward from one of the windows further down the street, fan in hand. There is a novio who passes and repasses her window, not once in the evening, but scores of times. When the mother is safe in the background you may see the senorita as she leans forward, carelessly counting the sticks of her fan. He understands that signal and knows that she desires to speak with him. He approaches and pauses before the window. See, they are able this time to have quite a conversation.

Ah! now her mother must be coming. He walks outward to the corner and crosses the street. Certainly, this young man has enough exercise in walking. He carries himself gracefully, with a peculiar pose one often sees here, and you always recognize him by his walk as he approaches each evening in the distance.

As the senorita walks toward the window from the room fanning herself he knows she intends to say to him: "This evening I am going out." Of course, he wonders when. She shuts her fan very slowly and he knows that she does not leave the house until quite late; so there may be opportunity for further conversation.

She returns to the window and holds her fan closed against her right cheek. She feels sad that she must go out this evening away from him. Will her mother never leave the room and give him another chance to approach? No, to-night the mother specially favors the front room.

After awhile the novio loses hope of speaking with his sweetheart and enters a carriage which has already passed and repassed him three or four times, with two friends of his. This coach will be driven past this particular window not five but twenty times during the evening that he may have at least the pleasure of looking at his sweetheart. He is untiring—this thing has been going on for months.

Usually, in such a case, when a young man is strongly attracted he obtains an introduction at a dance or through a friend of her family, and is invited to call at the house, provided the mother approves of her daughter's making his acquaintance. Evidently, in this case, the mother does not approve, but the young lady does.

What will be the end of this little romance? The neighbors all wonder; and, as all mankind loves a lover, they do not feel that they are taking a liberty in watching this game of hearts.

See, she opens her fan as it is turned downward in her hand. She is asking him to write to her. To-morrow night you will see a letter transferred from one to the other.

You are doing nothing unusual in watching your neighbors thus closely. As you walk down the street in the evening you can see into the interior of each house. If you see a pair of lovers in the corner of a salon, you also see the mother near by with paper or embroidery in hand. How would you like that, you American girl?

Do not make the mistake of thinking that Cuban senors and senoritas do not find a way to communicate their sweet nothings. There is the ever-present fan, and moments in the dance when a whisper can be spoken that no chaperon can hear.

Summary Retribution.

"Behead the brass band!" shouted the Chinese emperor.

The court favorite looked questioningly at the empress dowager.

"Certainly," said she. "If it will amuse him, behead the entire band."

"But what reason shall I give?"

"Simply call attention to its lack of delicacy. As we were entering the Forbidden City it played: 'The Old Home Ain't What It Used to Be.'"—Washington Star.

To Prove It.—Kind Gentleman—"Ah, what a nice little dog you have, sonny; I don't believe a nice little dog like him will bite." Little Boy—"Don't, don't yer? Sic 'em, Bill!"—Ohio State Journal.

"He's forever speaking of 'the late unpleasantness.' By that I suppose he means the civil war." "Oh, no! He means his late wife."—Philadelphia Press.

Still More Counterfeiting.

The Secret Service has unearthed another band of counterfeiters and secured a large quantity of bogus bills, which are so cleverly executed that the average person would never suspect them of being spurious. Things of great value are always selected for imitation, notably Hostetter's Stomach Bitters, which has many imitators but no equals for disorders like indigestion, dyspepsia, constipation, nervousness and general debility. Always go to reliable druggists who have the reputation of giving what you ask for.

His Scheme.

Tigg—Did you hear what Count Dedbroke tried to do when he came over here in search of an heiress?

Nigg—No. What was it?

"Wanted a position as tax assessor, so he could get inside information."—Baltimore American.

Do Your Feet Ache and Burn?

Shake into your shoes, Allen's Foot-Ease, a powder for the feet. It makes tight or New Shoes Feel Easy, Cures Corns, Itching, Swollen, Hot, Callous, Smarting, Sore and Sweating Feet. All Druggists and Shoe Stores sell it, 25c. Sample sent FREE. Address, Allen S. Olmsted, Le Roy, N. Y.

Not Strange.

Quizzer—Isn't it remarkable the interest foreigners take in American affairs from the very minute they land?

Guyer—Yes, and especially in the money question.—Kansas City Independent.

I do not believe Piso's Cure for Consumption has an equal for coughs and colds.—John F. Boyer, Trinity Springs, Ind., Feb. 15, 1900.

Envy never fails to be grieved at another's happiness and happy at his grief.—Ram's Horn.